

## MID-TONED AND HIGH-TONED ELEMENTS IN YORÙBÁ\*

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This paper examines three M-toned and three H-toned elements in Yorùbá. On the one hand are the mid-toned mora (MT $\mu$ ), the mid-toned *ni* and the mid-toned *ti*. On the other hand are the H-toned mora (HT $\mu$ ), the H-toned *ní* and the H-toned *tí*. I propose that the parallels between these elements are syntactically and semantically conditioned. Every occurrence of a M-toned element shows agreement in the nominal domain whereas every occurrence of a H-toned element shows agreement in the verbal or extended verbal domain. I show that the pairs converge in their semantic role as case assigners. In particular, I claim that genitive Case assignment is carried out by the MT $\mu$  or *ti*. I treat this as an instance of Case alternation. I further propose that when the two jointly assign genitive Case to the possessor, this is an instance of Case stacking.

### 1. A Survey Of The Mid-Toned And High-Toned Elements in Yorùbá.

This section presents a survey of the parallels between the three M-toned and the three H-toned elements<sup>1</sup> in Yorùbá. I consider the parallelisms between  $\mu$ , *ni*, *ti* and the differences between H and M tones in the following sections. In terms of

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\* This paper is drawn from portions of chapters 2 and 3 of my doctoral thesis. However, some significant changes in terms of arguments have been made in this revised version. I acknowledge suggestions made by Victor Manfredi, two anonymous reviewers and the editor, which have greatly helped me to come out with this revised form. All errors remain solely mine.

<sup>1</sup> The term “element” as used in this paper captures the two pairs of items that do not have the same phonological properties. For example, while the high-toned *ní*, *tí* and the mid-toned *ni*, *ti* have phonological components/content of their own, the high-toned and mid-toned morae [ $\mu$ ] do not i.e., they are phonologically null.

realisation,  $\mu$  is spelled out as a copy of the preceding vowel and Vn represents a nasalized vowel.

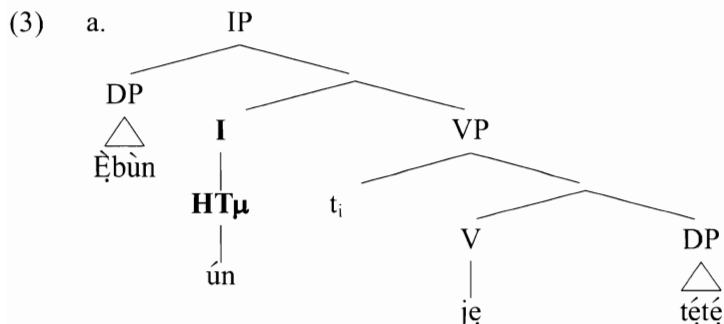
**1.1. The mid-toned and high-toned morae.** The first parallel to be examined is the one that exists between the High toned- mora (HT $\mu$ ) found in I(infl) in the verbal domain and the Mid-toned mora (MT $\mu$ ) found in D in the nominal domain. In Yorùbá, the MT $\mu$  is obligatory in the nominal domain i.e., between the possessor and the possessum (cf. Ajíbóyè 2005, 2007).

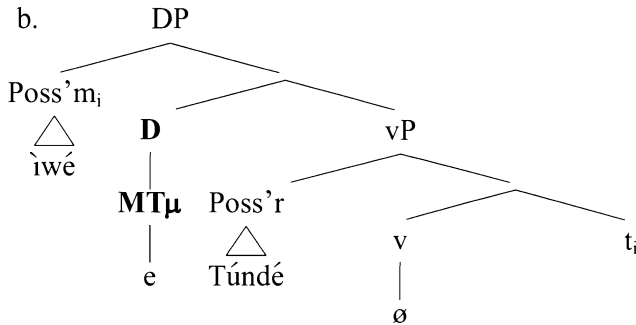
- (1) a. ilé e Bísí                      b. ẹ̀wù u Títí  
       house MT $\mu$  B.                      dress MT $\mu$  T.  
       ‘Bisi’s house’                      ‘Titi’s dress’

Just as the MT $\mu$  is obligatory in the nominal domain, so too is HT $\mu$  obligatory in the verbal domain i.e., between a full DP subject and a bare verb (Déchaine 1993: 457).

- (2) a. Ọ̀bẹ ẹ kọ mí lówó.                      b. Ẹ̀bùn ún jẹ tẹ́tẹ́  
       Knife HT $\mu$  cut 1sg P-hand                      Ẹ HT $\mu$  eat lottery  
       ‘A knife cut my hand.’                      ‘Ebun won a lottery.’

The claim being made with respect to the two elements is the following: while the HT $\mu$  instantiates Spec, Head agreement in IP (3a), the MT $\mu$  spells out Spec, Head agreement in DP, (3b).





Based on our assumption that  $HT_{\mu}$  correlates with “finite predication”,<sup>2</sup> the following questions arise: why? How can a floating tone do this? Interestingly, Rose-Marie Déchaine informs me that a similar condition holds across Benue-Congo. The H tone called  $HT_{\mu}$  will be treated as purely intonational effect of the syntax.

Note that in (3b) and subsequently I depict genitive DPs as including a vP projection. This may seem to be an unfamiliar analysis since the standard assumption is that arguments within DPs originate in Spec of nP, the nominal counterpart to vP. Alternatively, some theorists only put agents in Spec, nP; they assign possessors to Spec, PossP (cf. Adger 2003). There are two reasons for proposing the vP rather than nP label for the structure inside Yorùbá genitive DPs. First, Yorùbá genitive constructions as discussed in Ajíbóyè (2005) cover both nominal and verbal domains.<sup>3</sup> So, if we adopt nP, the same problem will come up with data relating to nominal genitives. The other alternative is to propose an xP which will refer to no particular category. I leave the choice of these options open to readers. Second, as I show below, nominal *ti*-genitives parallel *tí* relatives. To explain this, I claim that they have the same structure. Note that a full relative clause of the type under discussion is a complex NP that consists of a head NP and an embedded CP/sentence. It follows, then, that relative clauses, whether reduced or not, must necessarily have a VP.

**1.2. M-toned *ni* and H-toned *ní*.** In this section, we now show that the contrast between H-toned *ní* and M-toned *ni* provides additional support for the claim that H-toned *tí* spells out Spec-Head agreement when CP dominates IP, while M-

<sup>2</sup> An earlier proposal which treats this as an agreeing element with verbs was Awóbùlúyì (1972).

<sup>3</sup> The vP is analyzed as a small clause in this paper.

toned *ti* spells out Spec-Head agreement when CP dominates a defective nominal clause.

We observe that the occurrence of the H-toned *ní* ‘have’ in a clause marks the clause as a verbal predicate, (4a). The ungrammaticality of (4b) shows that whenever verbal H-toned *ní* is present, it is obligatory for the HT $\mu$  to be present.

- (4) a. Àgbè é ní owó                      b. \*Àgbè Ø ní Túndé  
       farmer HT $\mu$  have money                farmer have T  
       ‘A farmer has money.’

The behaviour of H-toned *ní* contrasts with M-toned copular *ni*, which is never preceded by HT $\mu$ . This is because, as observed in Abraham (1958: 435), M-toned *ni* is not a true verb as shown by the ungrammaticality of (5b). The absence of HT $\mu$  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 HT $\mu$  as in (5b) then the output is ungrammatical. We can therefore assume that the difference between the possessive *ní* and the copula particle *ni* lies in the fact that  $\acute{\mu}$  marks the possessive which behaves like true verbs whereas the copula particle lacks such marking.

- (5) a. Àgbè ni Túndé                      b. \*Àgbè é ni Túndé<sup>4</sup>  
       farmer be T.                              farmer HT $\mu$  be T.  
       ‘Tunde is a farmer.’

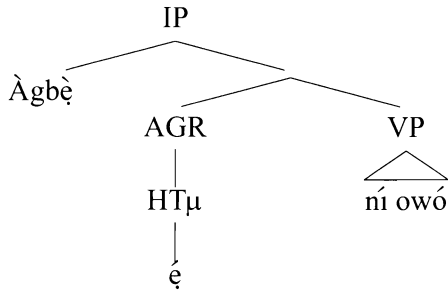
The contrast between H-toned *ní* and M-toned *ni* is illustrated with the structures in (6).

<sup>4</sup> It is much easier to say that the “copula” in Yorùbá is not a predicate at all, and this seems to be correct because to say “God exists” in Yorùbá, one cannot use the copula at all. Rather, what one says is (i) and not (ii).

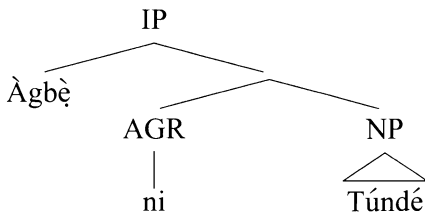
- (i) Olórun ún wà                      (ii) \*Olórun ni  
       war HT $\mu$  be                              war copula  
       ‘There is war.’

This is because as shown in (ii), there are contexts where *ni* does not fit to be called a verb.

(6) a. verbal predicate



b. nominal predicate



A clarification on the status of *ni* is necessary here.<sup>5</sup> The clarification is that the label given to this element too is not itself important. This label is interesting only insofar as *ni* behaves like items labeled “copula” in other languages, which hopefully goes beyond mere English translation although that was always the main justification. As suggested to me by a reviewer, it is very common for languages to express possession with a copular construction, sometimes with special case on the subject (‘To me is a knife’) or the object (‘I am with a knife’), the latter is nearly universal in Bantu — and the copula used in possession constructions is almost always exactly the same, down to the littlest inflectional quirks, as the ordinary copula.

I show the last case parallel between H-toned and M-toned elements in section 1.3.

**1.3. M toned *tí* and H toned *tí*.** This section addresses the parallel that exists between M-toned *tí* that occurs in a genitive construction (7a) and the H-toned *tí* that occurs in a relative clause (7b).

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<sup>5</sup> M toned-*ni* in this paper is the same as the copula *ni* in the literature (cf. Awóyale 1997, Yusuf 1990a, b, among others). I adopt that label to capture the comparison which I wish to make between it and its high-toned counterpart (*ní*).

- (7) a. òbẹ́      tí      Bùnmi                              *N*    *ti*    *N*  
 knife      of      B.  
 ‘Bunmi’s knife’
- b. òbẹ́      tí      Kúnlé      rà                              *N*    *tí*    *N*    *VP*  
 knife      that      K.      buy  
 ‘the knife that Kunle bought’

First to observe is that on the face of it, if we compare the two elements, it appears we simply have a phonological reduction of associative /*ti*/. This is not the case. Although the elements have similar function and distribution, the type of structure they mark is quite different. On their similarities, I show below that the two are complementizers and they are found in relative clause within a nominal domain. Still on similarities, neither of them can be immediately preceded by *ú*.

- (8) a. \*òbẹ́      é      tí      Bùnmi                              b. \*òbẹ́      é      tí      Kúnlé      rà  
 knife      HT<sub>ú</sub> of      B.                              knife HT<sub>ú</sub> that      K.      buy

On their differences, I show that M-toned *ti* genitives are reduced relative clauses while H-toned *tí* constructions are full relative clauses. There are two considerations that support this claim: theoretical, and language internal (empirical) evidence.

On theoretical ground, following Ajíbóyè (2005: 95-98), I propose that like true complementizers, the *ti* element occupies C and takes a small clause (vP shell) as its complement. This proposal brings to light the structural relationship between the M-toned *ti* and the H-toned *tí* as they both spell out as C. The other theoretical evidence comes from a raising rule that is enforced in the two structures: in both clauses, an NP must raise. Whereas the raised NP lands only at Spec CP in a H-toned relative clause (9a), in a M-toned (reduced) relative clause, it is possible for the NP to raise to Spec CP (9b) or out of Spec CP to DP (9c). This latter case is witnessed whenever D is pronounced.

- (9) a. [<sub>CP</sub> [<sub>NP<sub>i</sub></sub> òbẹ́] [<sub>C</sub> tí] [<sub>IP</sub> [<sub>NP</sub> Bùnmi] [<sub>VP</sub> [<sub>t<sub>i</sub></sub>...]]]]  
 b. [<sub>DP</sub> D [<sub>CP</sub> [<sub>NP<sub>i</sub></sub> òbẹ́] [<sub>C</sub> tí] [<sub>VP</sub> [<sub>NP</sub> Bùnmi [<sub>v</sub> Ø] [<sub>t<sub>i</sub></sub>]]]]]  
 c. [<sub>DP</sub> [<sub>NP<sub>i</sub></sub> owó] [<sub>D</sub> o] [<sub>CP</sub> t<sub>i</sub> [<sub>C</sub> tí] [<sub>VP</sub> [<sub>NP</sub> Bùnmi] [<sub>v</sub> Ø] [<sub>t<sub>i</sub></sub>]]]]]

On language internal evidence, I show that there is independent evidence for claiming that they are agreeing complementizers. I claim that while H-toned *tí*

is an Agreeing Complementizer marking Spec-Head agreement in the extended verbal domain, the M-toned *tí* is an Agreeing Complementizer that shows up in the extended nominal domain.<sup>6</sup>

There is also 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.<sup>7</sup> I consider the fact of agreement as indirect evidence that H-tone *tí* shows Spec-Head agreement in Yorùbá. A 1<sup>st</sup> or 2<sup>nd</sup> person antecedent may be associated with a resumptive pronoun, which agrees in person and number, or the resumptive pronoun may surface in the 3<sup>rd</sup> person form. This is shown for 1<sup>st</sup> person (singular and plural) as well as 2<sup>nd</sup> person (singular and plural) in (10)-(13).

(10) 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.’

(11) 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.’

(12) 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.’

<sup>6</sup> Cf. *quel/qui* alternation as a form of agreement in French.

<sup>7</sup> See Déchaine (1993) for a treatment of the 3rd person singular form in Yorùbá as default agreement.

- (13) a. Èyin tí ẹ ní ère tà á  
 2pl C 2pl have statue sell 3sg  
 ‘You that own a statue sold it.’
- 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 3<sup>rd</sup> 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, as in (14).

- (14) 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 3<sup>rd</sup> person plural pronoun (15) or common noun (16) 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.

- (15) a. Àwọ̀n tí wọ̀n ní ère tà á  
 1pl C 3pl have statue sell 3sg  
 ‘They that own a statue sold it.’
- b. Àwọ̀n tí ó ní ère tà á  
 1pl C 3sg have statue sell 3sg  
 ‘They that own a statue sold it.’



- (16) a. Ọkùnrin méjì tí wọ̀n 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.’

One problem relating to agreement discussed above is that, if indeed agreement is optional and the H tone is an indication of agreement, one could expect that there could be an optional tone alternation in *tí* correlated with optional agreement. However, this is not the case, so further research is needed in this area.

To recap the discussion in sections 1.1–1.3, I have shown that M-toned elements and H-toned elements have certain things in common, namely, they show some form of agreement. They also have one thing that separates them, namely, the M-toned elements are found in nominal domains whereas the H-toned elements are found in verbal domain. Table (17) summarizes this difference.

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

	M-tone <i>tí</i>	M-tone <i>ní</i>	MT $\mu$	H-tone <i>tí</i>	H-tone <i>ní</i>	HT $\mu$
Nominal	√	√	√	x	x	x
Verbal	x	x	x	√	√	√

## 2. Case Assignments

The account of Case assignment follows Stowell’s (1981) “Adjacency Condition”, which requires that “the Case Assigner and the Assignee must be adjacent to each other.”<sup>8</sup>

**2.1. Assigning genitive case to the possessor.** There are two things to remind readers of the discussion of the genitive DPs so far. First, in the surface syntax, the two arguments within this phrase are related by the MT $\mu$ , as in (18a) or by *tí* in the genitive plus *tí*-construction, as in (18b).

<sup>8</sup>This is contra Chomsky’s 1992 proposal, which requires that Case Assignment relations depend on Specifier Head agreement.

- (18) a. owó o Kúnlé  
 money MT $\mu$  K.  
 ‘Kunle’s money’
- b. ère ti Kúnlé  
 statue of K.  
 ‘the statue of Kunle’

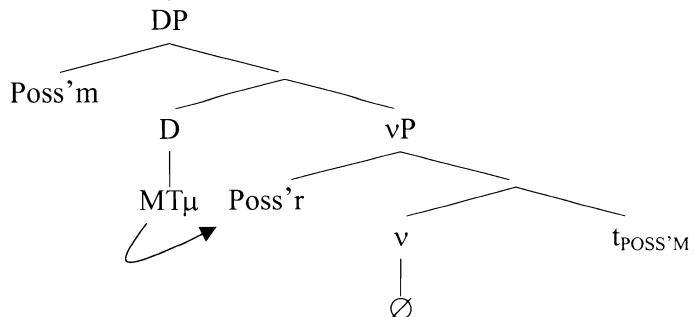
Second, both the MT $\mu$  and the *ti*-element can co-occur, seen in (19).

- (19) a. ajá a ti Bùnmi  
 dog MT $\mu$  of B.  
 ‘dog of Bunmi (as opposed to someone else’s dog)’
- b. ilé e ti Dàda  
 house MT $\mu$  of D.  
 ‘house of Dada’ (as opposed to someone else’s house)’

Having established the status of MT $\mu$  and M-tone *ti* as functional heads (D and 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).

**2.1.1. The co-argument analysis: exceptional case marking.** Following Haegemann (1994) and Lee (1995), I propose that the assignment of genitive Case to the possessor in Yorubá involves a kind of Exceptional Case Marking where the MT $\mu$  in D assigns Genitive case to the possessor argument in Spec vP, as in (20).

- (20) *Exceptional Case marking*

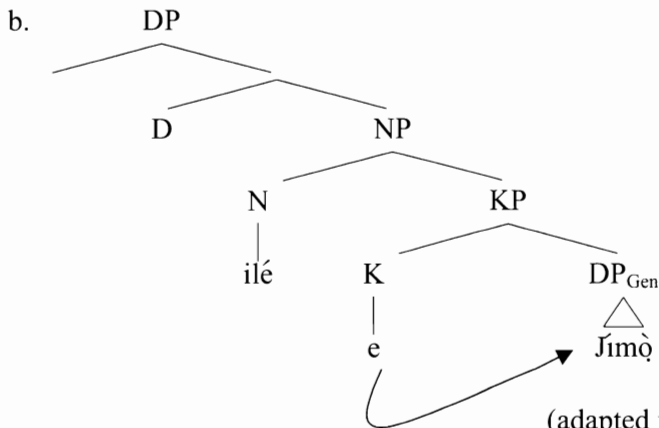


I claim that this configuration is an instance of Exceptional Case Marking since it is exceptional for an argument to be assigned Case by an element outside of the projection that contains the argument (here vP).

Observe that in (20) 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. See (section 2.2) below.

**2.1.2. The head-complement analysis: case under government.** In the complementation analysis (Déchaine 2001), the possessum is claimed to be the head noun and the possessor is the complement. In this approach, genitive case is locally assigned to the DP. In this instance, the genitive Case assigner is P or K(ase). This is what (21) illustrates.

- (21) a. ilé e Jímò  
           house MTμ 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 (Ajíbóyè 2005) is introduced in the layer above the vP shell, the Spec of which the Possessor occupies.

**2.2. Assigning structural case to the raised possessum.** I address three things in the following subsections: the problem of raising in relation to Case assignment

(section 2.2.1), and how the raised possessum is assigned the NOM Case if in the subject position, (section 2.2.2); and ACC Case if in object position, (section 2.2.3).

**2.2.1. The problem of raising in relation to Case assignment.** 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 (22), where 'picture' has moved from its object position to Spec CP.

- (22) a. [DP the [CP [IP Bill liked which picture]]]
- ↑
- b. [DP the [CP [DP which picture] [IP Bill liked t<sub>DP</sub>]]]
- ↑
- c. [DP the [NP picture] [CP [DP which t<sub>NP</sub>] [IP 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, even 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 it amounts to duplication of Case assignment.<sup>9</sup> What Borsley considers a problem is not so in the current analysis, as such duplication will be regarded as an instance of Case stacking.

A different but relevant problem arises for Polish, where an NP and its relative pronoun are assigned different Case because of movement of the NP. In (23), the NP *pana* 'man' receives Accusative Case while the relative pronoun *kióry* receives Nominative Case. The problem is that there is no reason why the NP and the relative pronoun should receive a different Case.

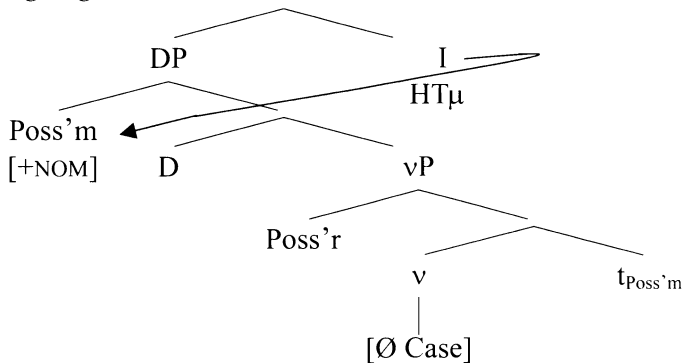
<sup>9</sup> Cf. free relatives in German (Wiltschko personal communication).

- (23) Widzialem tego **pana, który** zbil ci szybe  
 saw-1SG the-ACC man-ACC who-NOM broke your-S 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.

**2.2.2. Assigning structural case to the raised possessum I: nominative.** The problem I address 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.

- (24) *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 HTμ in I(nfl). In (25), this Nominative case assigner shows up as a H-toned mora, here ‘á’ (whose vocalic content is determined by assimilating the vocalic features of the immediately preceding vowel).

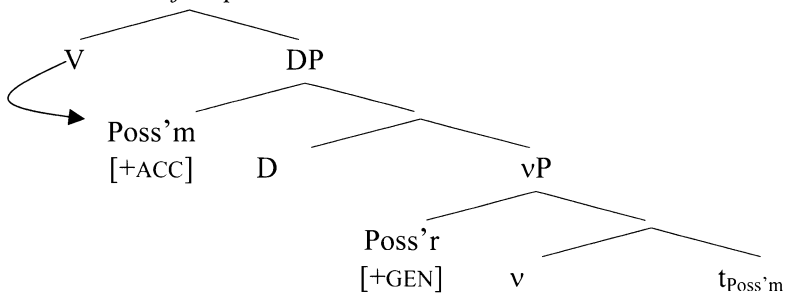
Finally, note the similarity between the MTμ that assigns GEN Case and the HTμ that assigns Nominative Case: they both take the segmental copy of the preceding vowel. The difference lies in tone. MTμ is found in nominal environments, whereas HTμ is found in verbal environments.

- (25) [Ilé e Gbàdà] á jóná  
 house MTμ. GEN G. HTμ. NOM burn  
 ‘Gbadà’s house got burnt.’

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

**2.2.3. Assigning structural case to the raised possessum II: accusative.** If it is in the object position, the entire DP is disposed to receive accusative Case. This is Case assignment which is structurally determined (Haegeman 1994: 159). Since it is the possessum NP that is in the object position, it automatically receives the accusative Case. The interesting thing here is that the ACC Case assigned to the possessum NP within the genitive DP is another instance of Exceptional Case Marking. I show this in (26), where even though the whole DP is assigned the ACC Case, the possessum is the recipient as shown by the arrow.

- (26) *Genitive DP in object position*



It has been claimed that in Standard Yorùbá, syntax affects the tone of both lexical and functional heads in different ways. Before an Accusative-marked complement, the inherent low tone of a monosyllabic verb is suppressed Déchaine (2001).

- (27) *Accusative Case*

Jimò ra [òkò ɔ Tàfá]  
 J. buy+ACC vehicle MTμ+ GEN T.  
 ‘Jimo bought Tafa’s vehicle.’

This is what has been described as a syntactically conditioned phonological process.<sup>10</sup>

Finally, in pursuance of the parallels that exist between the high-toned *ní*, and the mid-toned *ni* there is one quirky fact which needs to be mentioned as to Case: while *ní* assigns accusative, *ni* does not.

(28) *Accusative Case*

- |                       |                       |
|-----------------------|-----------------------|
| a. Jímò ọ ní [aʂọ]    | b. *Jímò ọ ni [aʂọ]   |
| J. HTS have+ACC cloth | J. HTS have+ACC cloth |
| ‘Jimo has clothes.’   |                       |

With this, I end the discussion on the external Case assignment and turn to Case assignment that is internal to the genitive construction.

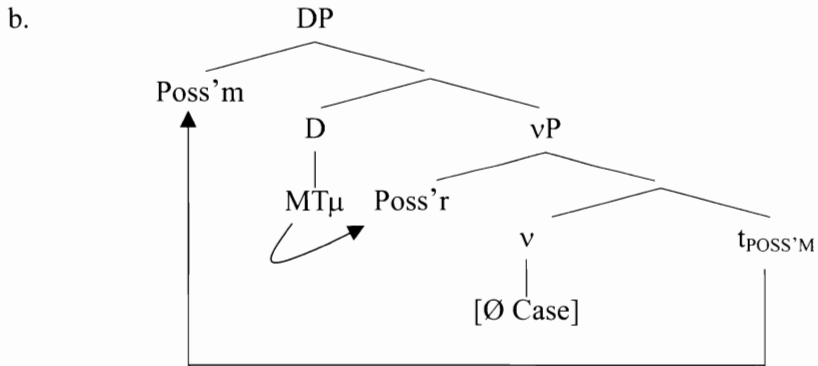
### 3. Genitive Case Assignment and Co-occurrence of the MT $\mu$ With *ti*.

I have shown that it is possible for the MT $\mu$  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 they occur separately as well as when they co-occur. I argue that each of them can assign Genitive Case. When each independently assigns Genitive Case, this is an instance of Case alternation (section 3.1). I also show that they can jointly assign Genitive Case, which is what I refer to as Case stacking (section 3.2).

**3.1. Case alternation: mid tone mora or *ti*.** The assignment of genitive Case can be carried out either by the MT $\mu$  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 MT $\mu$  that assigns Genitive Case. This is illustrated in (29b) where the MT $\mu$  assigns Genitive Case.

<sup>10</sup> The same process has been described as Yorùbá L-raising (Ajíbóyè et al 2004).

- (29) a. ìwé e Kúnlé  
 book MT<sub>μ</sub> K.  
 ‘Tunde’s book’



The claim made for the  $MT_{\mu}$  with respect to Case assignment is also applicable to *ti*, namely when it is the only functional element present in a 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 (30b) illustrates.<sup>11</sup>

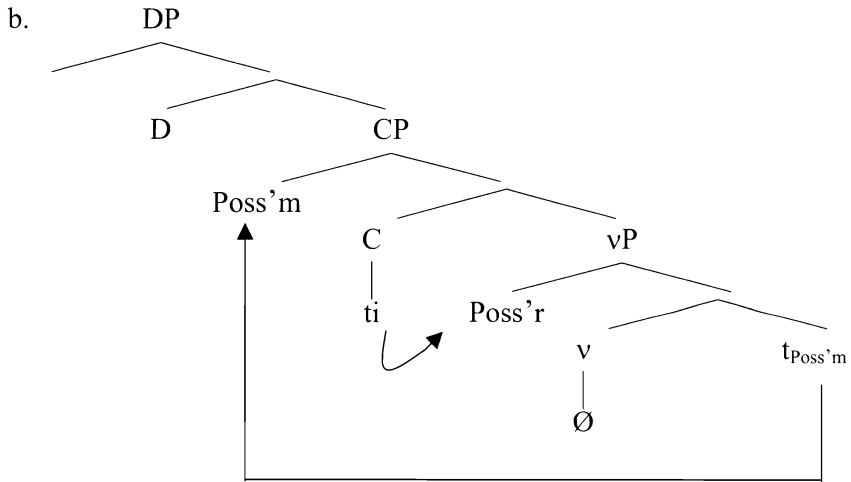
- (30) a. òbẹ ti Èbùn  
 knife C E.  
 ‘knife of Eburn’

<sup>11</sup> One consequence of this analysis is that we expect the H-toned *tí* 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 will a matter for future research.





In summary, I have shown that each of the two functional heads can independently assign genitive Case to the possessor NP.<sup>12</sup> The next thing I consider is how genitive Case is assigned when both elements co-occur.

**3.2 Case stacking: mid toned mora *and* *ti*.** We have seen that either the MT $\mu$  or M-tone *ti* may intervene between the possessum and the possessor. In addition, it is possible for the MT $\mu$  and *ti* to co-occur as in (31).

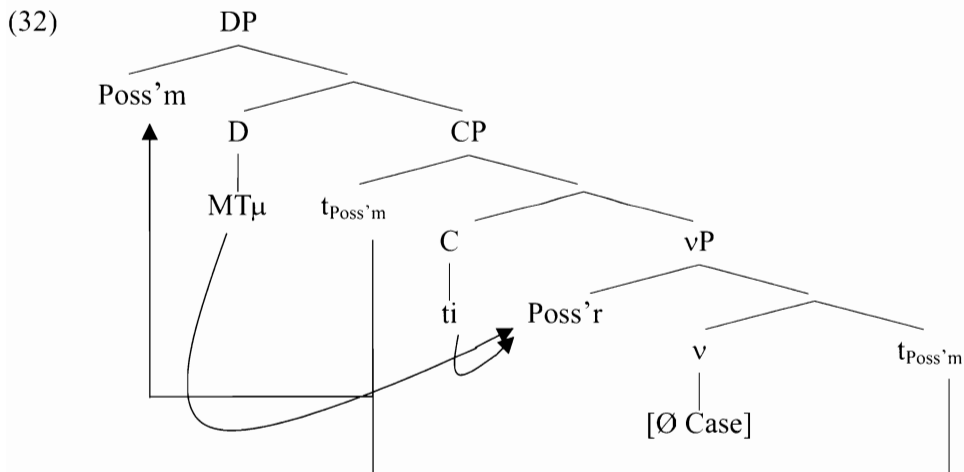
- (31) a. Mo rí [ilé e ti Túndé]  
 1sg see house MT $\mu$  C T.  
 ‘I saw the house of Tunde.’
- b. [Ilé e ti Túndé] ga  
 house MT $\mu$  C T. be-tall  
 ‘The house of Tunde is tall.’

I propose that the co-occurrence of these two functional heads (MT $\mu$  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

<sup>12</sup>There is an alternative analysis that will treat *ti* and MT $\mu$  as inherently morphologized Case elements rather than Case assigners. Such an alternative is not considered in this paper.

each argument is assigned genitive Case by each Case assigner, I propose that both the  $MT_{\mu}$  and the  $ti$ -element multiply assign genitive Case to the possessor.



The Yorùbá type of Case stacking under discussion contrasts with the kind of Case stacking reported in the literature where one NP is assigned two different Cases. In Guugu Yalanji, it is possible for a Possessor to be assigned Genitive Case as well as Ergative Case, as in (33) where *ndamun* marks Genitive Case and *du* marks the Ergative Case on the noun *Dicki*.

- (33) Dicki-**ndamun-du**      kaya-ngka  
 Dick -GEN      -ERG      dog -ERG  
 'Dick's dog'      (Sadler & Nordlinger 2001: 4)

Similarly, in Korean, Case stacking involves co-occurrence of *-eykey* and *-ka*, which assign Dative/Locative and Nominative Cases respectively to *Cheli*, as illustrated in (34).

- (34) Cheli-**eykey-ka**      ton-i manh-ta  
 C-      DAT-NOM      money-NOM      a.lot-DECL  
 'It is Cheli who has a lot of money.'      (Yoon 2004: 4)

The same phenomenon has been reported in many Australian languages with non-nominative subjects (Nordlinger 1998; Sadler & Nordlinger 2004) and in Korean

(Yoon 2004) and references cited therein.<sup>13</sup> In the case of Yorùbá reported here, there are two distinct elements that assign the Case.

An unresolved problem remains with respect to the Case stacking analysis proposed for Yorùbá. This is in relation to the position of the MT $\mu$  to the possessor. Recall that on independent grounds, I have shown that both MT $\mu$  and M-tone *ti* assign genitive Case to the Possessor under Exceptional Case Marking. The proposal that the MT $\mu$  co-assigns genitive Case with M-tone *ti* is unusual since the MT $\mu$  is not in the right configuration for Case assignment. Exceptional Case Marking as it is discussed in the literature does not usually extend to cases where the Case assigner and the Case assignee are not in a local relation.

Finally, what I analyze as Exceptional Case Marking according to an anonymous reviewer relies on a closest c-command relation (cf. the Minimalist approach (Chomsky 2000) and related work). This in that approach is suggestive of Case-deletion in the Agree relation.

**3.3 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 MT $\mu$  and *ti*. To test this claim, consider the examples in (35) and (36). (36b) is more emphatic than (35b), as it indicates that the statue being referred to is only that of Awolowo.

(35) a. Context: I went to Bodija and saw Awolowo's statue. When I got back home, I say (35b) to my wife.

b. Mo      rí      [èrè    e    Awólówò]    ní      Bódìjà  
 Isg      see      statue MT $\mu$  A.                      Loc    B.  
 'I saw the statue of Awolowo at Bodija.'

<sup>13</sup>One characteristic feature of Case stacking is that it is sensitive to syntactic function (Sadler & Nordlinger 2004: 1). In Korean it occurs in non-nominative DPs, whereas in Yorùbá as reported here, it occurs in genitive DPs.

- (36) 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 (36b).
- b. Mo      rí      [ère e ti Awólówò] ní Bódjà  
 Isg      see      statue MT $\mu$  C A.      Loc B.  
 'I saw the statue of Awolowo at Bodija.' (as opposed to say statue of Murtala Mohammed)

This emphatic force of multiple Case-marked genitives is further exemplified in (37). Here, the presence of *ti* makes it more emphatic and explains the reason why it is Ade's preference.<sup>14</sup>

- (37) [Ère e Kúnlé] dára şùgbón [ère e ti Túndé] ni Adé fẹ  
 statue MT $\mu$  K.      good but      statue MT $\mu$  of T.      FOC A. want  
 'Kúnlé's statue is fine but it is the statue of TUNDE that Ade wants.'

The claim being made for Yorùbá has support in the literature.<sup>15</sup>

<sup>14</sup> Recall that MT $\mu$  is optional when the possessum is M-tone final but obligatory when the possessum is L-tone or H-tone final.

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

<sup>15</sup> In Korean, Yoon (2004: 6) claims that Case stacking also gives rise to a focus-like interpretation in non-nominative subjects. A Dative-marked nominal that is an underlying Object 'advances' to become a surface Subject, which makes it accessible to NOM Case. Thus the structural position of a noun as a non-nominative subject earns it a focus interpretation once it moves to that position.

Notice that the Korean kind of 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. See Schütze (1996, 2001) for arguments against the view that Case Stacking has focus interpretation.

Recall that when there is one Case assignment, there is one movement. This is observed if either the  $MT\mu$  or M-tone *ti* is the Case assigner; the Possessum moves once. However when there is Case stacking there is multiple movement of the Possessum. 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. Relating multiple movements to Case, the claim is that multiple movements of the Possessum induce a focus effect.

To summarize, I have shown that genitive Case assignment can be carried out by the  $MT\mu$  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 in terms of emphasis.

#### 4. Conclusion.

This paper has established the significance of H-tone and M-tone alternations in Yorùbá. In particular, it has demonstrated 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  $HT\mu$  versus  $MT\mu$ , and of H-tone *ní* versus M-tone *ni*. It also shows the uniqueness of these elements in their ability to assign Case.

### REFERENCES

- Abraham, Roy Clive. 1958. *Dictionary of Modern Yoruba*. London: University of London Press Ltd. London.
- Adger, David. 2003. *Core Syntax: A Minimalist Approach*. London: Oxford University Press.
- Ajíbóyè, Oḷádíípò. 2005. *Topics on Yorùbá Nominal Expressions*. Vancouver: University of British Columbia, PhD. dissertation.
- Ajíbóyè, Oḷádíípò. 2007. *The Syntax and Semantics of Yorùbá Nominal Expressions*. Landmarks Series 1. Port Harcourt: M & J Grand Orbit Communications Ltd.

- Awóbùlúyì Qládélé. 1972. "Predicative adjectives in Yorùbá: a critique". *The Yorùbá Verb Phrase*, ed. by Ayò Bámgbóṣé. Ibadan: Ibadan University Press. Pp. 103-118.
- Awóyalé, Yíwoḷá. 1997. "Object positions in Yorùbá". *Object Positions in Benue-Kwa*, ed. by Rose-Marie Déchaine & Victor Manfredi. The Hague: Holland Academic Graphics. Pp. 7-30.
- Bámgbóṣé, Ayò. 1966. *A Grammar of Yorùbá*. London: Cambridge University Press.
- Bianchi, Valentina. 2000. "The raising analysis of relative clauses: a reply to Borsley". *Linguistic Inquiry* 31: 123-40.
- Borsley, Robert. 1997. "Relative clauses and the theory of phrase structure". *Linguistic Inquiry* 28: 624-647.
- Chomsky, Noam. 1993. "A Minimalist Program for Linguistic Theory". *The view from the Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, ed. by Ken Hale & Samuel J. Keyser. Cambridge, MA: MIT Press. Pp. 1-52.
- Chomsky, Noam. 2000. "Minimalist Inquiries: The Framework". *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, ed. by Roger Martin, David Michaels & Juan Uriagereka. Cambridge, MA: MIT Press. Pp. 89-155.
- Déchaine, Rose-Marie. 1993. *Predicates Across Categories: Towards a Category-neutral Syntax*. Amherst, MA: University of Massachusetts, PhD. dissertation.
- Déchaine, Rose-Marie. 2001. "On the left edge of Yorùbá complements". *Lingua* 111: 81-130.
- Haegeman, Liliane. 1994. *Introduction to Government and Binding Theory* 2nd ed. Oxford, UK & Cambridge, MA: Blackwell.
- Kayne, Richard. 1994. *The Antisymmetry of Syntax*. Cambridge: MIT Press.

- Lee, Jeong-Shik. 1995. "The role of Case in Exceptional Case marking". *Studies in Generative Grammar* 5: 265-317.
- Nordlinger, Rachel. 1998. *Constructive Case: Evidence From Australian Languages*. Stanford, CA: CSLI Publications.
- Sadler, Louisa & Rachel Nordlinger. 2006. "Case stacking in Realizational Morphology". *Linguistics: An Interdisciplinary Journal of the Language Sciences* 44: 459-488
- Schütze, C. 1996. "Korean 'case stacking' isn't: unifying noncase uses of case particles". *Proceedings of the North East Linguistic Society* 26, ed. by Kiyomi Kusumoto. Amherst: GLSA Publications. Pp. 351-365.
- Stowell, Tim. 1981. *Elements of Phrase Structure*. Cambridge, Massachusetts: MIT, PhD. Dissertation.
- Welmers, William. 1973. *African Language Structure*. Berkeley: University of California Press.
- Yoon, James. 2004. "Nonnominative (major) subjects and case stacking in Korean". *Non-nominative subjects Volume 2*, ed. by Peri Bhaskararao & Karumuri Venkata Subbarao. Amsterdam: John Benjamins. Pp 265-314.
- Yusuf, Qrẹ. 1990a. "Participant coding in Yorùbá: the syntactic function of *ni*". *Afrikanistische Arbeitspapiere* 23: 93-109.
- Yusuf, Qrẹ. 1990b. "Yorùbá copula *Ni*". *Journal of West African Languages* 20,1: 83-93

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