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Syntactic (de)composition of Yorùbá 'be' and 'have'*

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1. Introduction

Natural language distinguishes two kinds of copulas, I(nfl)-based and C(omp)-based. Diagnostically, a C-based copula manifests Ruwet's "inverse" copular construction (with pre-copular Focus) but not the "canonical" one (with pre-copular Topic). An I-based copula takes both constructions, but has a restriction of its own: in the inverse type, the pre-copular element must be definite (*A hero is John) and the postcopular one can't be (**There is the man in the garden*). C-based copulas lack this pair of definiteness effects.

I-based copulas are familiar in Indo-European languages. A C-based copula (*ni*) is the sole option in Yorùbá (§2). Languages with both types include Àkán and (probably) Thai. This limited crosslinguistic freedom is consistent with a theory of UG that keeps parametric diversity to the set of 'functional' (closed-class) categories (Fukui 1986). As a corrolary, copulas are never members of the lexical category V, i.e. they assign no θ-roles, they have no semantics of their own. Two lexical verbs do occur expletively in Yorùbá in an equational sense: *jẹ́* 'amount to' and *ṣe* 'do, make'. Perhaps they spell out the head of the copular small clause *à la* Moro, but they are inflected. The same two expletives occur in Yorùbá *yes-no* questions and in factive pseudoclefts.

Turning to 'have' (§3), the relevant Yorùbá form (*ní*) is not obviously a lexical item, as it is made of closed-class materials: *ni* (the C of the C-based copula) plus a prosodically-determined strong H-tone (notable as $_sH$). The purely phonosyntactic origin of the H-tone of *ní* 'have/own' is shown by the fact that it is suppressed under several, prosodically appropriate circumstances (§4). No lexically specified H-tone in the language ever disappears in these contexts.

If all its overt components are closed-class (C, $_sH$), why is Yorùbá *ní* 'have/own' a verb? Kayne 1993B decomposes French *a-voir* into a locative predicate *à*, but French *à* is itself ambiguous between this locative P and a functional element K which has no intrinsic semantics. In Yorùbá, too, it happens that locative P is homophonous with the phonetic spellout of null K. By hypothesis (Bittner and Hale 1994), K is the "nominal counterpart" of C, so $[_K \; ni + {_sH}]$ is expected: the ECP requires an ungoverned null K to be pronounced, and all ungoverned, null F-heads (whether C, T, K or D) in Yorùbá are prosodically strong. In this way, echoes of *ní*'s journey from the functional world to the lexical world—from C/K to P/V—are audible in Yorùbá as the homophony of overt 'ACCusative' with both 'at/in' and 'have/own'.

2. **No** copulas in l-syntax

Across languages, copulas are irregular as compared to other predicators. They display morphologically unique agreement as well as lexical suppletion in different tenses (in Indo-European languages); functional suppletion (in Àkán and Thai, cf. Ellis and Boadi 1969, Kuno and Wongkhomthong 1981); and non-pronunciation (in Semitic 'nominal sentences', Fassi-Fehri 1982, Doron 1983, Mouchaweh 1986). Yorùbá provides another instance of this general phenomenon, which I will argue to be categorial in origin.

There are four relevant primary observations about copular sentences in Yorùbá. The Yorùbá item normally translated 'be' lacks the unique morphological property of a verb: H tone subject agreement (§2.1). A related property, also missing for the putative Yorùbá copula, is H-tone nominalization (§2.2). A third idiosyncrasy is semantic or pragmatic in nature: Yorùbá has no well-formed copular constructions with a post-copular Focus (§2.3). Fourth, the 'copula' negates suppletively (§2.4)—the only other Yorùbá item which does so being the locative predicate of existence (§3.2).

These four observations are consistent with a scenario in which there is no copular element present at some level of representation which is crucial for licensing all of these phenomena. I assume that this level is the "lexical structure" of Hale and Keyser 1993, otherwise known as "lexical syntax" or l-syntax. (L-syntax in this sense is that representation which accounts for the properties which LGB-type frameworks account for in terms of θ-grids.) Conversely, if copulas existed in l-syntax, all four of the anomalies under consideration would be truly surprising.

2.1   **No** subject **a**greement (& related **prop**erties)

Every finite verb in Yorùbá, and every AUX which displays 3S subject *pro*-drop except the NEG auxiliary, requires H-tone AGReement on a lexical subject, cf. (1). Also, every finite verb or AUX takes a clitic subject, cf. (2).[1] The element *ni*, on the other hand, takes neither subject AGR nor any AUXes, and it disallows a clitic subject, cf. (3-4).[2]

(1)a. Àgbẹ̀ *(ẹ́) lọ
        farmer AGR go
        'A/the farmer went'

   b.   Àgbẹ̀ *(ẹ́) yóò lọ.
        farmer AGR PROX go
        'A/the farmer will go'

   c.   Àgbẹ̀ (*ẹ́) kò lọ.
        farmer AGR NEG go
        'A/the farmer didn't go'

(2)a. Mo lọ.
        1S.CL go
        'I went'

   b.   *Èmi   lọ.
        1S.NONCL go

(3)a. Àgbẹ̀ (*ẹ́) ni.
        farmer AGR ni
        'S/he's a farmer'
        (predicational, D-linked)
        'It's a farmer'
        (presentational, not D-linked)

   b.   *Àgbẹ̀ (ẹ́) yóò ni.
        farmer AGR PROX ni

   c.   *Àgbẹ̀ (ẹ́) kò ni.
        farmer AGR NEG ni

(4)a. *Mo ni.
        1S.CL ni

   b.   Èmi ni.
        1S ni
        'It's me'/'I'm the one'

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[1]On the paradigms in (1-2), cf. *inter alia* Oyèláràn 1970; Adéwọlé 1989; Déchaine 1992, 1993B.

[2]The exclusion of AGR before *ni* is stated by Abraham (1958: 435).

2.2 No H-tone nominalization

Abraham (1958: xvii) describes a reduplication process which nominalizes a verb into a gerund. The reduplicating prefix comprises the verb's initial consonant plus the default vowel (=*i*) plus phonosyntactic $_s$H.[3] This process of syntactic affixation (Fabb 1986) creates either the head of a relative clause (CP), cf. (5a), or else the head of an ordinary DP, cf. (5b). This type of nominalization is productive for all verbs in the language (Kújọṛẹ́ 1972, Awóyalé 1974); it is not, however, possible with the element *ni*, cf. (6).

(5)a. lí-lọ   tí   [àgbẹ̀   ẹ̀   lọ]   (6)a.*ní-ni   tí   [àgbẹ̀ ni]
     Ci.$_s$H-go REL farmer AGR go   Ci.$_s$H-ni REL farmer
     'the going that the farmer went'   ['her/his being a farmer']

   b. lí-lọ   ọ   àgbẹ̀   b.*ní-ni   i   àgbẹ̀
     Ci.$_s$H-go GEN farmer   Ci.$_s$H-ni GEN farmer
     'a/the farmer's going'   ['her/his being a farmer']

2.3 No canonical copular construction

Abraham 1958 implies that the predicational and presentational readings of (7) can be distinguished with reference to the more explicit paraphrases in (8), both of which lack the presentational reading. Bám̄gbóṣé (1967: 40) calls (7) an "elliptical form" of (8a).

(7)Aya   à   mi ni.   (8)a. [Aγa   à   mi]$_i$ ni ó   {jẹ́/ṣe}   [t$_i$].
     partner.f GEN 1S ni   partner.f GEN 1S   ni 3S.CL equal/do
     'She's my partner'   'What she is/functions as is *my partner*'
     (predicational, D-linked)   [italicized material in focus]
     'It's my partner'
     (presentational, not D-linked)   b. Ó   {jẹ́/ṣe}   aya   à   mi.
     3S.CL equal/do partner.f GEN 1S
     'She is/functions as my partner'
     [= non-focused version of (8a)]

     (8a), a cleft, partially matches the word order of (7), which is a linear substring of (8a) but not of (8b). (8a) is distinguished from (8b) in containing an explicit focus, which also ought to be present in (7). Some evidence supporting this expectation is discussed by Davison (1986: 108*f*.). Consider (9a) and (10a), and their assumed sources.

(9)a. Ọlọ́pǎ   ni Jímọ̀.   (10)a. Jímọ̀ ni ọlọ́pǎ.
     club.holder ni   ni club.holder
     'What Jímọ̀ is is a cop'   'The cop in question is Jímọ̀'
     (cf. *Jímọ̀ c'est un flic.*)   'The cop is playing the role of "Jímọ̀" '

   b. Jímọ̀ ọ́   jẹ́   ọlọ́pǎ.   b. *Ọlọ́pǎ   jẹ́   Jímọ̀.
     AGR equal club.holder   club.holder.AGR equal
     'Jímọ̀ is a cop'
     (cf. *Jímọ̀ est un flic.*)

   c. Jímọ̀ ọ́   ṣe   ọlọ́pǎ.   c. Ọlọ́pǎ   ṣe Jímọ̀.
     AGR do/work club.holder   club.holder.AGR do
     'Jímọ̀ messed up a/the cop'   'A/the cop messed Jímọ̀ up'
     'Jímọ̀ works as a/the cop'   'The cop is playing the role of "Jímọ̀" '

If (10b) underlies (10a), they should be equally as bad, but (10a) is saved by the fact that *ọlọ́pǎ* can be read non-predicatively, i.e. as part of the Topic, as D-linked. To save Abraham's conjecture, this reading of (10a) must have some other source than (10b).

3On (5), cf. also Awóbùlúyì 1978B; Awóyalé 1985; Manfredi 1992B, 1993A.

A plausible alternative source for (10a) is supplied by Bámgbóṣé (1967: 40). Consider (11), which has two readings, the second of which is the counterpart of (10a). Both readings are expected from the parallel existence of the two alternatives in (12).

(11) Ọlọ́rŭn ni ọba.
      sky.holder ni king
      'A king is effectively God' (≈12a)
      'It's only God that rules' (≈12b)

(12)a. Ọlọ́rŭn$_i$ ni ọbá jẹ́ [t$_i$].
        sky.holder ni king.AGR equal
        'God is what a/the king amounts to'

   b. Ọlọ́rŭn$_i$ ni ó$_i$ jẹ́ ọba.
       sky.holder ni AGR equal king
       'It's God that rules/is king'

The bare noun ọba is ambiguously [±definite] in (12a), but ọba in (12b) can only be indefinite, since it is predicative. The silent object trace in (12a) is licit, but the subject trace in (12b) which fails the ECP is pronounced with default (3S) φ-features (Koopman 1983: 37; Pulleyblank 1986; Manfredi 1987; Déchaine 1993).

Example (13), cited by Williams (1993: 43f.) from Higgins 1972, is comparable in information structure to (10a), but presumably it doesn't have a source like (12b). Rather, it is licit because *Olivier* is both a Focus and inherently definite if not D-linked.

(13)   Hamlet will be Olivier.   (e.g. in announcing a list of *dramatis personæ*)
                | |
            predicate   Focus

The lack of a parallel *ni*-sentence in Yorùbá suggests that *ni* is not a predicator at any level of representation, whereas English *be* is a V at least at the superficial level accessed by pragmatics. Call this level s-structure or f(unctional)-syntax (where the latter label is an intentional pun between closed-class phrasal categories and pragmatic structure).

2.4 Suppletive negation (& related properties)

Negation of a *ni*-sentence is fully suppletive if the topic is null, cf. (14) vs. (15).

(14)a. Òótọ́ ni.
        truth ni
        'It's true'

(15)a. Òótọ́ kọ́ (*ni).
        truth NOT
        'It isn't true'

   b.   Èmi ni.
        1S ni
        'It's me'

   b.   Èmi kọ́ (*ni).
        1S NOT
        'It's not me'

Even if the topic is non-null, the negator of a *ni clause* (= *kọ́*) is distinct from the negator of a verb phrase (= *kò*, phonetically reducible to *ò* unless the subject is null):

(16)a. Òótọ́ ni ìyẹn.
        truth ni that
        OR: Òótọ́ ni ìyẹn   jẹ́.
            truth ni that.AGR equal
        'That's a fact'
        (Bámgbóṣé 1967: 40)

(17)a. Òótọ́ kọ́ ni ìyẹn.
        truth NOT ni that
        OR: Òótọ́ kọ́   ni ìyẹn   jẹ́.
            truth NOT ni that.AGR equal
        'That's not a fact'

   b.   Èmi ni ó lọ.
        1S ni 3S go
        'It's me that went'

   b.   Èmi kọ́   ni *pro* yóò lọ.
        truth NOT ni   PROS go
        'I'm not the one who's about to go'

(18)   Jímọ̀ ọ́   lọ.
             AGR go
       'Jímọ̀ went'

(19)   Jímọ̀ (k)ò lọ.
             NEG go
       'Jímọ̀ didn't go'

Why is *ni* obligatory in (17) but ungrammatical in (15)? If *ni* is non-lexical, its presence in a string should depend only on well-formedness in f-syntax, and this expectation is borne out. (15) differs minimally from (17) in that the latter contains an overt Topic (the embedded subject), which requires Case. This is schematised in (17'), where $\varnothing_I$ is the head of S and $\varnothing_V$ indicates lexical content which is recoverable as either *jẹ́* or *ṣe*.[4] In (15'), by contrast, the null Topic (*pro*) doesn't need Case; there being no other content in S, the *wh*-chain headed by *òótọ́* is vacuous.

(17') Òótọ́$_i$ kọ́ ni [$_S$ ìyẹn $\varnothing_I \varnothing_V$ t$_i$]   (15') Òótọ́$_i$ kọ́ (*ni) [$_S$ *pro* $\varnothing_I \varnothing_V$ t$_i$].

Notice that the expletive verb—$\varnothing_V$—is itself a possible negation target, in which case it spells out as *ṣe*, the negator is not *kọ́* but *kò*, and *ni* becomes optional, cf. (20a).

(20)a. Kò   í   ṣe òótọ (ni).   b. Àdùkẹ́ kò   í   ṣe aya   à   mi.
       NEG.3S PROG do truth ni   NEG PROG do partner GEN 1S
       'It's not the truth'   'Àdùkẹ́ is not my partner'
       (Bámgbóṣé 1967: 40)   (Abraham 1958: 370)

Abraham calls *kò í ṣe* (or *kì í ṣe*, from *kò ń ṣe*) "the negative of *jẹ́*" (1958: 370), and this suppletion comes as no surprise if *jẹ́* and *ṣe* are both expletive. One may ask, why not the reverse, i.e. why isn't *kò í jẹ́* the negative of *ṣe*? If *jẹ́* and *ṣe* differ, it is plausibly in the fact that *ṣe*—which as a nonexpletive verb means 'make' or 'do'—is compatible with eventive (nonstative) aspect. But this is not straightforwardly so: the progressive auxiliary in (20) is not some kind of aspectual 'patch' between the stativity of *jẹ́* and the eventiveness of *ṣe*, since there are noneventive uses of expletive *ṣe* like (21a)—cf. also *ṣe* in (8a) and (9c) above. Moreover, the progressive is only optional in (21b).

(21)a. Ó ṣe pẹlẹbẹ.   b. Ó (ń)   ṣe àgbàfọ̀.
       3S do flatness   3S PROG do launderer
       'It is flat'   'He is a washerman'
       (Awóbùlúyì 1978A: 8)   (Abraham 1958: 433)

If *ṣe* is expletive, then the aspectual type of the predicate is determined by *ṣe*'s (nominal) complement, unless that complement is itself ambiguously individual-level or stage-level, as in the near-minimal pair in (22) where the progressive selects the latter (22b):

(22)a. Ó ṣe ọkùnrin   b. Ó ń   ṣe ọmọdé.
       3S do man   3S PROG do child
       'He is manly'   'He is behaving childishly'
       (Abraham 1958: 608)   (Abraham 1958: 608)

Then, to explain the obligatory progressive aux in (20a), it is enough to assume that a *ni*-cleft construction, with its inherent focus, is necessarily stage-level. A residual problem for this view is the optionality of 'sentence-final' *ni* in (20a).

Now, optional *ni* is also found without negation, in contexts where the upstairs verb is non-expletive, cf. (23). There being no evidence that the material to the left of *ni* is a nominalization, I adopt the ECM/control structure in (23').

(23) Wọ́n   ń   sọ ọ̀rọ̀ (ni).   (23') Wọ́n$_1$ ń$_2$ sọ$_3$ ọ̀rọ̀$_i$ [$\varnothing_i$ ni [$_S$ $\varnothing_1$ $\varnothing_2$ $\varnothing_3$ t$_i$]]
      3P.AGR PROG talk word ni
      '(The fact is) they are talking'
      (Bámgbóṣé 1967: 38)

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[4]For Moro (1993), "S" in (17') would be a small clause, i.e. an uninflected predication. However, $\varnothing_I$ is present in this "S": it is phonetically realized iff $\varnothing_V$ is, cf. (16a) and (17a) above.

In (23), control of the clefted internal argument (ọ̀rọ̀) suffices to reconstruct all material in the scope of that argument, namely the entire event in S, so that all such material can appear overtly above the CP. This makes (20a) and (23) homologous, the main difference being that in the former the verb is expletive, so reconstruction is trivial. In both examples, the linear integrity of the material above CP is responsible for the apparent optionality of *ni*; in reality, *ni* is obligatory and the clefting of the internal argument is the optional part. Optional *ni* is usually described as an 'emphatic' discourse-particle, but the assumption in (23') is that it always has the syntax of C^O.[5]

If we can go this far, two further steps are possible. (24) can be assimilated to the structure in (23'), with one difference: all the lexical content is downstairs while the (pronounced) $\varnothing_V$ is upstairs. And, both of the ordinary yes/no questions in (25) can be treated as isomorphic to (24), with the sole difference that C^O is null, spelled out $_sH$, in (25a), while C^O contains overt irrealis features in (25b). This parallelism entails that the sentence-initial 'question marker' *Ṣé* in (23a) is composed syntactically of two pieces: *ṣe*, the toneless (M-tone bearing) expletive verb, plus $_sH$ spelling out null C^O.

(24)	Ṣe ni [$_S$ wọ́n ń sọ̀rọ̀].
	do ni 3P.AGR PROG talk
	'The fact is that they are talking'
	(Bámgbóṣé 1967: 38)

(25)a.	Ṣé [$_S$ wọ́n ń sọ̀rọ̀]?
	do.C 3P.AGR PROG talk
	'Are they talking?'
	'Is it the case that they are talking?'
b.	Ṣe bí [$_S$ wọ́n ń sọ̀rọ̀]?
	do if 3P.AGR PROG talk
	'Is it the case that they are talking?'

The other expletive verb, *jẹ́*, forms a yes/no question with the same structure, (26b). The corresponding factive (26a) is not exactly parallel to (24): it lacks the null expletive subject and its complementizer is not *ni* but *pé*, the conflation of V^O *pé* 'say' with null C^O (Déchaine 1993C). Nevertheless, the association of both of the expletive verbs (*jẹ́* and *ṣe*) with C^O *ni* in copular sentences and also in factive pseudoclefts makes it plausible to derive *Ǹjẹ́* in the yes/no question (23b) from C^O *ni* plus *jẹ́*.

(26)a.	Ó jẹ́ pé [$_S$ wọ́n ń sọ̀rọ̀].	b.	Ǹ-jẹ́ [$_S$ wọ́n ń sọ̀rọ̀]?
	3S equal say 3P.AGR PROG talk		ni-equal 3P.AGR PROG talk
	'It is the case that they are talking'		'Is it the case that they are talking?'
	(cf. Abraham 1958: 341)		(cf. Awóyalé 1987)

There is supporting evidence from tonal prosody. Bámgbóṣé 1967 says that an alternate pronunciation of *Ṣebí* (MH) in (25b) is *Ṣèbí* (LH). It is tempting to compare this LH variant of underlying MH to the LH outcome *Ǹjẹ́* in (26b) which I would derive from a sequence of *ni* (M) plus *jẹ́* (H). This tone change is expected if any cliticized, weak element which begins this sentence type has to occupy a strong position, since on purely phonetic grounds I have claimed (1993B) that only L can be the initial member of branching (i.e. tonally complex) *s* position in Yorùbá. Even apart

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[5]As already alluded to, an alternative approach along the lines of Collins 1994 would treat the material in (23) to the left of *ni* as a factive nominalization of the embedded S. That view would be more compelling but for two difficulties: (i) the nominalization at issue would be completely abstract, and otherwise unattested in Yorùbá; and (ii) in other contexts e.g. clefts, the supposedly 'factive' meaning of the abstract nominalizer never occurs independent of an eventive or a manner reading or from ordinary object scope, so it may be entirely parasitic on one or more of these independently motivated effects, cf. Bámgbóṣé 1992, Manfredi 1993A, Wold 1994.

from the Comp domain, there are cases of sentence initial MH becoming LH. The examples in (27) are from Bámgbóṣé (1965: 18):

(27)a. Mo ń   lọ. OR: [mòńlọ]   b. Ẹ ń   kọ orin. OR: [ẹ̀ńkorin]
     1S PROG go   2P PROG sing song
     'I'm going'   'You're singing'

(This effect fails for the third person clitics, since third person has the ₅H default AGR.)

2.5 Copular typology

The above four properties suggest that the Yorùbá copula is C-based, and is neither I-based nor is it a verb. Crosslinguistically, copular CP and IP seem to be independent, since they can contrast in a single language. Ellis and Boadi 1969 give evidence that Àkán has both a C-based copula (né—cognate to Yorùbá ni) which heads a cleft, and also an I-based copula (yɛ̀) which excludes a post-copular Topic (much like an Indo-European canonical copular construction).

The minimal pair in (28) suggests that né takes a Focus to its left, but yɛ̀ doesn't.[6]

(28)a. Kwasí ne ɔhéne.   b. Kwasí yɛ̀ ɔhéne.
           ne chief   yɛ̀ chief
        'It is Kwasí tha   t's a chief'   'Kwasí is a chief'

Another difference: the arguments to either side of né can be definite, or not, cf. (29), but yɛ̀ prefers a definite subject (30) and rejects a definite predicate (31). The sensitivity of agreement to animacy allows us to see that the argument to the right of the copula may be definite just in a presentational context (31d), i.e. where it is not a predicate.

(29)   Ɔbarímá (no) ne ɔhéne (no)
        man   the ne chief the
        'It is {the/a} man that's {the/a} chief'

(30)a. ?Ɔbarímá yɛ̀ ɔhéne.   (31)a. Ɔhéne (no) yɛ̀ ɔbarímá.
        man   yɛ̀ chief   chief   the yɛ̀ man
        'A man is a chief'   '{The/a} chief is a man'

   b.   Ɔbarímá no yɛ̀ ɔhéne.   b. *Ɔhéne (no) yɛ̀ ɔbarímá no.
        man   the yɛ̀ chief   chief   the yɛ̀ man   the
        'The man is a chief'   ['{The/a} chief is the man']

                                        c. *Ɔ   yɛ̀ ɔbarímá no.
                                           3S.ANIM yɛ̀ man   the
                                           ['He is the man']

                                        d.. Ɛ   yɛ̀ ɔbarímá no.
                                            3S.INANIM yɛ̀ man   the
                                            'It is the man'

The existence of a language like Àkán, with both I-based and C-based copulas, indirectly supports the above analysis of Yorùbá. Two partly distinct copular structures also co-occur in Thai (Kuno and Wongkhomthong 1981), where the items *pen* and *khɯ* are presumably I-based and C-based, respectively. A further question, not addressed here, is whether all inverse copular constructions are really C-based instead of I-based, thus bringing f-syntax and semantic interpretation into closer correspondence.

6Àkán (or Twi, the particular variety described by the authors) is, like Yorùbá, a Kwa language. Tone is not indicated in the source. I have added orthographic tonemarks to the examples in (28) - (31), on both political and scientific grounds, but also at the risk of error.

3. Syntactic composition of *ní*

So far, the discussion has done little more than restate diverse insights of the West African linguistic literature in more formal terms. Henceforth, things get controversial. The claim throughout this section is that certain instances of (H-tone) *ní* contain the C⁰ (toneless or M-tone) *ni* as an ultimate—if not an immediate—constituent. The items in question are: (i) *ní* the accusative marker; (ii) *ní* the Preposition 'in/at'; and (iii) *ní* the verb meaning 'have' or 'own'. First, a brief digression.

3.1 *Ni → ní* without category change

Abraham (1958: 436) cites an example where an undisputed instance of C⁰ *ni* acquires H-tone from local phonetic context, namely from the resumptive third person AGR *ó* which we saw spelling out a subject *wh*-trace in (12b) above. If the H-tone is realized on *ni*, the default φ-features of the resumptive trace (= *o*) fail to surface.

(32) Ta ni ó   lọ?   [phonetically: talólọ OR tanílọ]
      who C AGR go
      'Who went?'

The default character of the third person AGR in (32) is also shown by the fact that its antecedent can be either singular or plural. This alternation is a trivial example of *ni* being pronounced *ní* without changing category. The remaining cases are different.

3.2 *Ni → ní* with category change

Oyèláràn 1981 lists five semantically distinct tokens of *ní* (with H-tone). All but the first one in (33e) undergo the *n~l* alternation (which occurs before vowels other than *i*).

(33)a. Mo ní owó.   [phonetically: molówó]
        1S V money
        'I have (some) money'

  b.   Mo ní Olú dé   ilé.   [phonetically: molólúdélé]
        1S V   arrive house
        'I said that Olú got home'

  c.   Mo fún Olú ní owó.   [phonetically: mofúnolúlówó]
        1S give   K money
        'I gave Olú (some) money'

  d.   Mo bá   Olú ní oko.   [phonetically: mobáolúlóko]
        1S meet   P farm
        'I encountered Olú at the farm'

  e.   Mo ní Olú ní ọwọ́.   [phonetically: monólúlọ́wọ́]
        1S V   K hand
        'I assist(ed) Olú'

Schematically, in a string […X⁰ YP (Z⁰ WP)…], either X or Z can be *ní*, or both (33e). Semantically, all the various tokens in (33) are not so different. The *ní* in (33a) is translatable as 'have'; *ní* in (33d) heads a locative PP; two more *ní*s—in (33c) and the first token in (33e)—have something to do with possession. I claim that all these tokens of *ní* are related syntactically. Specifically, starting from the result of §2 that toneless (i.e. phonetically M-tone) *ni* is categorially C⁰, all the instances of *ní* in (33) are arguably derived through a sequence of syntactic compositions:

(34)a. [C⁰ ni + ₛH] → [K⁰ ní]   *by spellout and prosodic government*   cf. (33b, c, e)

  b.   [P⁰ ∅ + K⁰]   → [P⁰ ní]   *by conflation*   cf. (33d)

  c.   [V⁰ ∅ + P⁰]   → [V⁰ ní]   *by conflation*   cf. (33a, e)

The required concepts of spellout and conflation are adopted from configurational Case theory (Bittner and Hale 1994) and from the theory of lexical syntax (Hale and Keyser 1993). Prosodic government (cf. Rizzi and Savoia 1992) is a type of metrical licensing which holds in phonosyntax—arguably the same representation where spellout phenomena occur: s-structure or f-syntax. Conflation, by contrast, is a type of head-movement which occurs at or before the "d-structure" representation, i.e. in l-syntax. All three operations instantiate subtypes of government, which is presumably the only core grammatical principle involved. Details of these operations follow.

3.2.1 *ní* as K^o

(34a) claims that C^o *ni* becomes K^o *ní*, Oyèláràn's (1993) "antifocus" particle, a marker of inherent Case or abstract incorporation *à la* Baker. This is not a category change so much as an appeal to an equivalence asserted by Bittner and Hale 1994, who describe K as the "nominal counterpart" of C. This equivalence may be expressible in a theory of functional elements such as Fukui 1986; see also Déchaine (1993: 71-75).

According to Bittner and Hale, UG makes KP available for marked structural Cases. Yorùbá not having overt agreement on arguments[7], KP is called only for the direct structural cases ERG and ACC (the marked cases).[8] NOM, a direct structural Case, is universally unmarked, hence it does not involve KP. A K^o spelled out as either ERG or ACC is underlyingly null, and is therefore licensed by the ECP.[9] By hypothesis, the antecedent government requirement of the ECP is satisfied by a "Case-binder" head (either I^o or V^o). The realization of ACC additionally depends on a "Case-competitor", which is a K-less argument (a bare DP or NP) also in the local domain of the Case-binder. The spellout of null K^o is ACC if the Case-binder is V^o and the Case-competitor is D^o. Spellout is relevant to the Case Filter which, as stated by Bittner and Hale, requires a DP or its trace to be governed by either C^o or K^o. The idea is that C^o and K^o are each other's "counterparts" in the verbal and nominal domains respectively: as far as the Case Filter cares, one is as good as the other. The attraction of this idea for Yorùbá is that C^o *ni* and K^o *ní* are near homophones, the only difference being the privative presence in the latter of a H-tone—there being no substantive M-tone present in the former.[10] Therefore, consider the H-tone.

For a list of languages traditionally called 'tonal' (including Yorùbá), Bamba 1992 has argued for the activity of metrical structure *à la* Liberman and Prince. His idea is that tones are not randomly distributed in autosegmental tiers, but group into feet with all the properties of metrical structure (headedness, binarity, recursiveness). In a series of papers[11], I apply Bamba's theory to a ubiquitous phenomenon in Niger-Congo: the occurrence of a lexically unexpected H-tone in grammatical contexts which implicate a null f-head (C, K, T, D). To generalize across all these cases, assume that a null f-head

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7Yorùbá H-tone AGR, realized phonetically on subjects, is generated not in a KP, but rather in some functional head in the extended projection of V, i.e. in a member of the post-Pollock "exploded Infl family" such as T_o (Déchaine 1992, 1993A). The H-tone spellout of T_o is thus regulated, not by Case theory, but by prosodic government as defined below.

8Bittner and Hale's NOM covers both traditional labels "nominative" and "absolutive".

9In the theory, the availability of ERG and ACC in a given language depends on phrase structure (in f-syntax). I assume that ERG is not relevant to the examples in (33).

10That Yorùbá M-tone is just the pronunciation of tonelessness is argued by Akinlabí (1985).

11Manfredi (1992 A,B,C; 1993B). See also Déchaine (1993A), Déchaine and Manfredi (1995), Hounguès (1994), Kimenyi (1994) and Twahirwa (1994).

not licensed by the ECP (i.e. which is not itself governed) is not a good syntactic governor, but it can become one if it has some phonetic content. The question is why, across the Niger-Congo languages, the necesssary phonetic content is just a H tone.

Suppose that H-tone has a property which uniquely qualifies it to rehabilitate an unfit syntactic governor. Recall that, in all the examples, the type of syntax is f-syntax. Bamba proposes that H-tone is the head of a metrical foot; in the KLV framework (Kaye *et al.* 1990), it is a metrical governor. Apparently, grammar is willing to accept a metrical governor as an f-syntactic governor. In other words, the government relation in at least some part of syntax (f-syntax, or s-structure) is equivalent to the government relation in at least a sub-part of phonology (metrical structure, or prosody).

These claims of the preceding paragraph are summarized in (35).

(35)a. *Prosodic government*
Null X^0, X closed-class, is strong if X is both ungoverned and governing.

  b. *Principles*
A metrical governor is stronger than its governee (H>L>M).
[s] immediately dominates a metrical governor.
[w] is strictly adjacent to a metrical governor.
Tonal government iff [s].

  c. *Parameters*
The set of tonal governors is: {H}, {L}, {H, L}.

  d. *Yorùbá*
The set of tonal governors is: {H, L}. (This implies the existence of a M tone.)

To account for the phenomena described in (34a), it remains to point out that two of the instances (34c), (34e) involve double object constructions where the notional Theme, marked with *ní*, is non-adjacent to the verb, hence it is both ungoverned and governing, so both spellout and prosodic government are invoked. The third instance, (34b) has an indirect discourse complement but no verb of speaking. If there is an overt verb, C^0 can stay null, but since there is no overt verb in (34b), C^0 is spelled out *ni*, and *ni* gets its H-tone because it is both ungoverned and governing. It is traditional, in Yorùbá grammar, to refer to this *ní* as a verb meaning 'say' (Oyèláràn 1982).

3.2.2 *ní* as [p o ∅+K⁰]

Another token of *ní* translates English *at/to*, cf. (33d) repeated here as (36a). Oyèláràn 1993 shows that this is a true lexical P: it can pied-pipe when its object is clefted (36b), unlike a K in a double object construction like (37).

(36)a. Mo bá Olú ní oko.
       1S meet   P farm
       'I met Olú at the farm'

  b. (Ní) oko ni Olú bá mi.
      P farm C   meet 1S
      '(At) the farm is where Olú met me'

(37)a. Olú rán mi ní {iṣẹ́/obì}.
        send 1S K job/kola
       'Olú sent me on an errand/for kola'

  b. (*Ní) {iṣẹ́/obì} ni Olú rán mi.
      K   job/kola C   send 1S
     'An errand is what Olú sent me on'
     'Some kola is what Olú sent me for'

A third possibility is intermediate between lexical P and pure (null) K. *Sí* in (38) is a Case marker, since like *ní* it cannot pied-pipe (38b), but unlike *ní* it can strand (38c). In Bittner and Hale's framework, *sí* has the behavior of non-accusative K, i.e. an inherent or underlying (non-null) Case, just like the English item *to* which appears with *send*.

(38)a. Olú rán mi {ní/sí} oko. c. Oko ni Olú rán mi *(sí.)
      send 1S K   farm   farm C   send   K
      'Olú sent me to the farm'   'The farm is where Olú sent me to'

  b. *{Ní/sí} oko ni Olú rán mi.
      K   farm C   send 1S

Other evidence that *sí* is inherent Case comes from existential constructions. In the negative and positive versions of (39), *sí* is in a suppletive relationship with the verb *wà* 'exist'. Only in child Yorùbá and in some dialects (such as Èkìtì), does *sí* have the status of a verb, cf. (40a) where subject AGR is audible before *sí*.

(39)a. Ọkọ̀ ọ́ wà (ní ilẹ̀).   (40)a.%Ọkọ̀ ọ́ sí (ní ilẹ̀).
      vehicle AGR exist K ground   vehicle AGR V K ground
      'There is a car/cars (somewhere)'   'There is a car or cars (somewhere)'
      'A car or cars is/are available'   'A car or cars is/are available'

  b. Ọkọ̀ kò sí (ní ilẹ̀).   b. Kò sí ọkọ̀ (ní ilẹ̀).
      vehicle NEG K   K ground   Neg P vehicle K ground
      'There is/are no car(s)'   'There is/are no car(s)'

3.2.3 *ní* as [$_V$ o $\emptyset$+P^0]

Finally, there is the 'have/own' token of *ní*, exemplified in (33a) above and in (41).

(41) Jímọ̀ ọ́ ní ajá.   [phonetically: jímọ̀ọ́lájá]
         AGR V dog
      'Jímọ̀ has/owns a/the dog'

The subject AGR in (41) shows that *ní* is categorially V. But other evidence, reviewed in §4, shows that it is not an unanalyzable item, from a phonosyntactic standpoint.

4. Suppression of phonosyntactic tone

Ní may be a verb, but it is an unstable molecule, not a lexicalist's 'syntactic atom' (§4.1). Phonosyntactic tone effects also occur in other, independent empirical domains (§4.2).

4.1 *Ní* 'have' → *ni*

Ní 'have' undergoes obligatory loss of its $_s$H in an appropriate prosodic context.

4.1.1 Phrasal context

The minimal pair in (42)[12] shows suppression of $_s$H in between the default, 3S subject resumptive element *ó*—seen in (12b) and (32) above—and a definite, bare object.

(42)a. Ta ni ó ní [$_{KP}\emptyset$ [$_{DP}\emptyset$ ajá]]? b. Ta ni ó ni [$_{KP}\emptyset$ [$_{DP}$ [$_D$ajá$_i$] t$_i$]]?
      who C 3S V   dog   who C 3S V   dog
      'Who has/owns a dog?'   'Who has/owns the dog in question?'
      [talólájá] = M H H H   [talólajá] = M H M H

Null D being an option in Yorùbá, this effect is attributable to prosodic government. In (42a), null K assigns accusative to *ajá* 'dog'. K is not spelled out because it is antecedent governed by V, and, if existential quantification of the object comes from a null D (Longobardi 1994), then null K governs a null D. In (42b), the object is referential, which Longobardi ascribes to its substitution in null D, so null K minimally governs lexical material in D, and there is one less null f-head. Thus, the V in (42b) resides between two f-heads, each of which minimally governs lexical content. But this context removes the original need for *ní* to be a prosodic governor, so the $_s$H drops.

12Adapted from Abraham (1958: 438) and kindly confirmed for me by three Yorùbá-speakers.

4.1.2 In a synthetic compound

Abraham (1958: 438) describes H-tone loss in synthetic compounds of *ní* 'have' where the logical object has all L-tone (43a), vs. elsewhere (44) where the H-tone stays.

(43)a. alàgbà   <   o-ní-àgbà
      'respected person'   er-have-seniority

   b. alààyè   <   o-ní-àyè
      'living creature'   er-have-space

   c. olòṣì   <   o-ní-òṣì
      'poor person'   er-have-destitution

(44)a. aláṣo   <   o-ní-aṣo
      'cloth owner/seller'   er-have-cloth

   b. eléèrí   <   o-ní-èrí
      'witness'   er-have-evidence

   c. aládùn   <   o-ní-adùn
      'candy'   er-have-sweetness

Assuming that an MHL sequence is insufficient to project two prosodic feet, nevertheless by hypothesis both L and H are tonal governors in Yorùbá (cf. 35d), so the L in (43) can 'take over' the prosodic government requirement which motivated $_sH$ on *ní* to begin with. This is only possible, however, if the domain of this L goes to the end of the word, since the metrical governor (H) must be adjacent to the governee (35b).

4.2 Related (de)composition effects of $_sH$

Two other phenomena (briefly) show that the manipulation of phonosyntactic tone in Yorùbá is not limited to the verb *ní* 'have'.

4.2.1 K + $_sH$ = C

There is probably a relationship between relative Comp *tí* in (45) and the inherent Casemarker *ti* in (46).

(45)   ìwé   tí   mo rà.   (46)a. ìwé   ti   èmi
      book C 1S buy   book K 1S
      'the book I bought'   'a/the book of mine'

                              b. Leiden ni mo ti ra   ìwé.
                                 C 1S   K buy book
                               'Leiden is where I bought a/the book(s)'
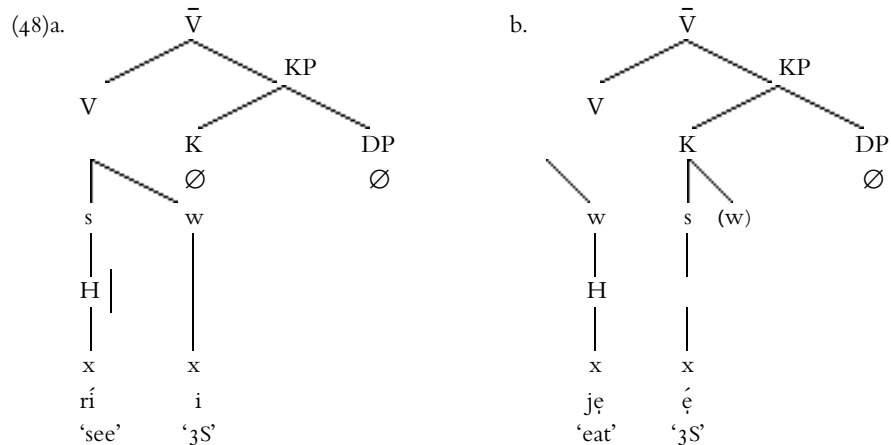
4.2.2 Contraction of V + K

Ward 1952, Bámgbóṣé 1965, Oyèláràn 1970 and others have observed a regular contraction involving the 3S object clitic after an underlying high tone verb (47a); the converse effect occurs with a toneless (lexical 'mid' tone) verb (47b):[13]

(47)a. Mo rí i.   [contracted to: Mo rí.]   b. Mo jẹ ẹ́.   [contracted to: Mo jẹ́.]
      1S see 3S   1S eat 3S
      'I saw her/him/it'   'I ate it'

Note that this apparent 'tone change' is restricted to contexts where the underlying tones involved are not independent of each other. Thus, Stahlke (1974: 140) draws attention to the complementarity of the object clitic tone: H after M and L verbs, vs. M after H verbs. Pulleyblank 1983 and Akinlabí 1985 restate this observation in a non-metrical framework with a phonological rule which deletes a H-tone just if it is linked

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13 Ward (1952: 38) identifies this contraction as specific to "Lagos speakers", but this may not be dialectal, if the speech of that city simply presents the freest use of contraction.

to an object clitic and follows another H-tone. In a metrical framework, all three stipulations can be dropped. There is no tone 'deletion' if what occurs is simply the failure to spell out a null f-head as strong in a predictable context, namely where it is locally governed, cf. (35a) and (48). There is no need to mention object clitics, since the f-syntax gives the context, nor to mention a preceding H-tone, since by hypothesis a preceding L or M-tone would not count as the head of a strong position. Thus the uncontracted forms in (47) are given directly by phonosyntax, as in (48).

(48)a.

```
                V̄                                        b.                  V̄
          ╱         ╲                                              ╱              ╲
        V            KP                                          V                 KP
                  ╱      ╲                                                      ╱       ╲
                 K        DP                                                  K          DP
                 ∅         ∅                                                             ∅
              ╱   ╲                                              ╲          ╱  ╲
             s     w                                             w        s    (w)
             │     │                                             │        │
             H │                                                 H        │
             │                                                   │        │
             x     x                                             x        x
             rí    i                                             jẹ       ẹ́
            'see'  '3S'                                         'eat'     '3S'
```

Whatever phonetic process is responsible for the contracted forms, the relevant point is that the items in (47) which contract are distinguished from those in (49) which don't directly by their phonosyntactic properties. Only with an L-tone verb are both V and K inherently strong and can both of them occupy a single branching *s* (cf. §4.2.1).

(49) Mo rà á.   *n.b.* *Mo rà./*Mo rá. (not contractable)
      1S buy 3S
      'I bought it'

5.   Conclusion.

Yorùbá 'be' and 'have' suggest that the (de)compositional properties of lexical as well as functional items—the objects of *l-syntax* and *f-syntax*—are both richer and more constrained than one currently imagines. The initial idea about Yorùbá 'be' as Cᵒ was inspired by Ruwet's classic work on French. The method of study was to demonstrate "proliferating consequences" of this idea across many constructions of Yorùbá and several modules of grammar. This exercise was feasible only with the help of Abraham's Yorùbá dictionary—a philological monument as yet unequalled in the Niger-Congo family—and with the acute insights of the formally oriented, Yorùbá speaker-linguist tradition which Bámgbóṣé led throughout the 1960's and '70's. Finally, if my claims about Yorùbá 'have' are not entirely mistaken, then the crucial role of tonal prosody in the f-syntactic composition of Yorùbá words points to a much closer relationship between phonology and syntax than has been standardly assumed.

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References

Abímbọ́lá, 'W. (ed.) 1975. *Yorùbá Oral Tradition.* Department of African Languages and Literatures, University of Ifẹ̀, Ilé-Ifẹ̀. (Ifẹ̀ Languages and Literatures Series, 1.)

Abraham, R. C. 1958. *Dictionary of Modern Yorùbá.* University of London Press.

Adéwọlé, L. O. 1989. Sequence and co-occurrence of Yorùbá auxiliary verbs. *Canadian Journal of Linguistics* 34, 1-17.

Akinlabí, A. M. 1985. *Tonal underspecification and Yorùbá tone.* Dissertation, University of Ìbàdàn.

Awóbùlúyì, Ọ. 1978A. *Essentials of Yorùbá Grammar.* Oxford University Press, Ìbàdàn.

___ 1978B. Focus constructions as noun phrases. *Linguistic Analysis* 4, 93-114.

Awóyalé, 'Y. 1974. *Studies in the syntax and semantics of Yorùbá nominalizations.* Dissertation, University of Illinois, Urbana-Champaign.

___ 1985. Focus as an unbounded movement rule in Yorùbá. *Journal of the Linguistic Association of Nigeria* 3, 75-84.

___ 1987. The place of sentence-boundary elements in grammar. Presented at 18e Colloque de Linguistique Africaniste, UQuébec à Montréal, 26 April.

Bamba, M. 1990. On downstep in the tonal system of Ojene Jula. *Current Approaches to African Linguistics* 7. Foris, Dordrecht. Pp. 1-14.

___ 1992. *Sur l'interaction entre ton et accent.* Dissertation, UQuébec à Montréal.

Bámgbóṣé, A. 1965. *Yorùbá Orthography.* Ìbàdàn University Press.

___ 1967. *A Short Yorùbá Grammar.* Heinemann, Ìbàdàn.

___ 1972. What is a verb in Yorùbá? In Bámgbóṣé (ed.) 1972: 17-60.

___ 1992 Relativization or nominalization: a case of structure vs. meaning. *Research in Yorùbá Language & Literature* 3: 87-109.

Bámgbóṣé, A. (ed.) 1972. *The Yorùbá Verb Phrase.* Ìbàdàn University Press.

Bittner, M. and K. Hale 1994. The structural determination of Case. *Ms.* Rutgers University and MIT.

Bittner, M. and K. Hale TO APPEAR. Remarks on definiteness in Warlpiri. In E. Bach *et al.* (eds.) *Quantification in Natural Language.* Kluwer, Dordrecht.

Christaller, J. G. 1875. *A Grammar of the Asante and Fante Language.* Missionsbuchhandlung, Basel.

Collins, C. 1994. The factive construction in Kwa. Presented at Afrikaanse Taalkunde/Algemene Taalwetenschap seminar, RU Leiden, June.

Davison, R. 1986. The pragmatic morpheme *ni* in Yorùbá. *CLS* 22, 105-14.

Déchaine, R.-M. 1992. Inflection in Ìgbo and Yorùbá *MITWPL* 17, 95-119.

___ 1993A *Predicates across categories; towards a category-neutral syntax.* Dissertation, UMass, Amherst.

___ 1993B Negation in Ìgbo and Yorùbá. Presented. at the 6th Niger-Congo Syntax & Semantics Workshop, Boston University, 23 April.

___ 1993C. The complementizer position in Yorùbá. Presented at 23rd Colloquium on African Languages and Linguistics, Rijksuniversiteit Leiden, 31 August.

Déchaine, R.-M. and V. Manfredi 1995. The case of Ìgbo bare nouns. Ms., University of British Columbia and Boston University.

Doron, E. 1983. *Verbless predicates in Hebrew.* Dissertation, UTexas, Austin.

Ellis, J. and L. O. Boadi. 1969. 'To be' in Twi. In J. W. M. Verhaar (ed.) *The Verb 'Be' and its Synonyms* 4 (= *Foundations of Language Suppl.ement* 9), 1-71.

Fabb, N. 1984. *Syntactic affixation.* Dissertation, MIT.

Fassi-Fehri, A. 1982 *Linguistique arabe: forme et interprétation.* Publications de la Faculté des Lettres et Sciences Humaines, Rabat.

___ 1992. *Issues in the Structure of Arabic Clauses and Words.* Kluwer, Dordrecht.

Fukui, N. 1986. *A theory of category-projection and its application.* Dissertation, MIT.

Hale, K. and S. J. Keyser 1993. On argument structure and the lexical expression of syntactic relations. In *The View from Building 20.* MIT Press, Cambridge, Mass. Pp. 53-109.

Higgins, F. R. 1973. *The pseudo-cleft construction in English.* Dissertation, MIT.

Hounguès, D. 1994. Some aspects of nominalization in Mínà morphology. *Ms.*, Boston University African Studies Center.

Kaye, J. D., J. Lowenstamm and J.-R. Vergnaud. 1990. Constituent structure and government in phonology. *Phonological Yearbook* 7, 193-231.

Kayne, R. S. 1989. Notes on English agreement. *CIEFL Bulletin* 1, 41-67.

___ 1993. Toward a modular theory of auxiliary selection. *Studia Linguistica* 47, 3-31.

Kimenyi, A. 1994. U-turn phenomena in Kinyarwanda tone rhythm rules. Presented at 25th Annual Conference on African Linguistics, Rutgers University, 27 March.

Koopman, H. 1983. *The Syntax of Verbs*. Foris, Dordrecht.

Kújọrẹ̀, Ọ. 1972. A touchstone for the verb in Yorùbá. In Bámgbóṣé (ed.) 1972: 61-71.

Kuno, S. and P. Wongkhomthong 1981. Characterizational and identificational sentences in Thai. *Studies in Language* 5, 65-109.

Liberman, M. and A. Prince 1977. On stress and linguistic rhythm. *Linguistic Inquiry* 8, 249-336.

Longobardi, G. 1994. Reference and proper names. *Linguistic Inquiry* 25, 609-65.

Lowenstamm, J. 1987. Prosodic government. In J. Kaye *et al.* (eds.) *Projet de linguistique africaniste: études phonologiques et syntaxiques; rapport de l'année 1986-87*. UQuébec à Montréal. Pp. 248-51.

Manfredi, V. 1987. Anti-logophoricity as domain extension in Ìgbo and Yorùbá. *Niger-Congo Syntax & Semantics* 1 (Boston University), 97-113.

___ 1992A. Spreading and downstep: prosodic government in tone languages. In H. van der Hulst and K. Snider (eds.) *The Phonology of Tone; the Representation of Tonal Register*. Berlin: Mouton/de Gruyter. Pp. 133-84.

___ 1992B. A typology of Yorùbá nominalizations. *MITWPL* 17, 205-17.

___ 1992C. The limits of downstep in Ágbọ̀ sentence-prosody. *IRCS Report* 92-37, 103-15. UPenn, Philadelphia.

___ 1993A. Verb focus in the typology of Kwa/Kru and Haitian. In F. Byrne and D. Winford (eds.) *Focus and Grammatical Relations in Creole Languages*. Benjamins, Amsterdam. Pp. 3-51.

___ 1993B. Tonally branching *s* in Yorùbá is [LH]. Presented at 6th Niger-Congo Syntax and Semantics Workshop, parasession, MIT, 1 May.

Moro, A. 1993. *I predicati nominali e la struttura della frase*. Rivista di Grammatica Generativa Monograph 7, Unipress, Padova.

Mouchaweh, L. 1986. *De la syntaxe des petites propositions*. Dissertation, UParis-8.

Oyèláràn, Ọ. O. 1970. *Yorùbá Phonology*. Dissertation, Stanford University.

___ 1981. [untitled handout on the *n~l* alternation in Yorùbá]. Dept. of Linguistics, Harvard U.

___ 1982. On the scope of the serial verb construction in Yorùbá. *Studies in African Linguistics* 13, 109-46.

___ 1993. Anti-focus in Yorùbá; some implications for creoles. In F. Byrne and D. Winford (eds.) *Focus and Grammatical Relations in Creole Languages*. Benjamins, Amsterdam. Pp. 163-86.

Pulleyblank, D. 1986. Clitics in Yorùbá. *Syntax & Semantics* 19, 43-64.

Rizzi, L. and L. M. Savoia 1992. Conditions on /u/ propagation in southern Italian dialects; a locality parameter for phonosyntactic processes. In A. Belletti (ed.) *Syn-tactic Theory and the Dialects of Italy*. Rosenberg & Sellier, Torino. Pp. 252-318.

Ruwet, N. 1975. Phrases copulatives. *Recherches Linguistiques de Vincennes* 3, 143-91.

Stahlke, H. 1974. The deveklopment of the three-way tonal contrast in Yorùbá. In E. Voeltz (ed.) *Third Annual Conference on African Linguistics*. Pp. 57-149.

Twahirwa, A. 1994. Le translatif relatif et les relatives en Kinyarwanda. Presented at the 25th Annual Conference on African Linguistics, Rutgers University, 27 March.

Ward, I. C. 1952. *An Introduction to the Yorùbá Language*. Heffer, Cambridge.

Williams, E. S. 1993 *Thematic Structure in Syntax*. MIT Press, Cambridge, Mass.

Wold, D. E. 1994. Focus projection in Ìgbo cleft constructions. *Ms.*, MIT.