A typology of Yorùbá nominalizations[*]

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This paper is neither a philologically detailed description of Yorùbá nominalizations—category-changing, nominal formation processes—nor is it a set of precise generative predictions about their form and meaning. Such goals are frankly beyond the reach of a non-speaker. Rather, I have culled rudimentary, published Yorùbá data which bear on the role of categorial morphology in the lexicon (Hoekstra *et al.* 1980; Brame 1982) and in the syntax (Baker 1985; Borer 1987). These data suggest a typology in two senses: a set of options within a single language, and a set of cross-linguistic options which revise currently accepted Universal Grammar category features. The resulting picture can be enlarged to include other Kwa languages, and other characteristic constructions of the Kwa family.

1. Yorùbá as a semi-lexicalist language

The original lexicalist hypothesis assumed a triple correlation, schematically as in (1).

		derived nominals (*John's criticis-m of the book*)	gerundive nominalizations (*John's criticiz-ing the book*)
1a.	restricted productivity (**refus-m, *criticis-al*)	+	−
b.	syntactic atomicity (**the criticiz-ing the book*)	+	−
c.	semantic idiosyncracy (*#literary criticiz-ing*)	+	−

Chomsky argued that Universal Grammar should represent the relationship between forms such as *criticism*$_N$ and *criticize*$_V$ nonsyntactically, in terms of lexical redundancy, so as to free transformations from annotating lexical items' idiosyncratic properties, including those in (1). His main interest, however, was not to establish a particular set of properties as necessary for a given nominal type. In particular, all three "+" properties in (1) were not presented as inherent attributes of lexical vs. syntactic derivation. On the contrary:

> It is, furthermore, quite possible to imagine a compromise solution that adopts the lexicalist position for certain [derived nominal] items and the transformationalist position for others. Again, this is entirely an empirical issue. (1970: 188)

In what follows, I will show that (1b) is absent in Yorùbá, and is therefore either a language-particular property of English derived nominals (the *parametric* solution), or preferably is the artefact of an independent property of English, namely the morphological content or strength of the functional category Determiner in English as compared to Yorùbá (the *modular* solution).

The analytic options just stated—parametric vs. modular—join another issue left open by the lexicalist hypothesis: the representational status of categorial features such as [±V, ±N]. Citing the obligatory definiteness of derived nominals, cf. (2) below, Chomsky remarks:

> We might just as well eliminate the distinction of feature and category, and regard all symbols of the grammar as sets of features. (1970: 208)

2a.　　John's proofs of the theorem
　b.　　*There were John's proofs of the theorem.

Chomsky's specific proposal to handle the contrast in (2) invoked the disjunctive rule expansion in (3a). The converse choice—to treat all sets of features as symbols of the grammar—allows closed-class or 'functional' heads to project phrases in accordance with X-bar theory, yielding (3b), where the SPEC position contains the prenominal Possessor, and Det ranges over a set of morphemes which includes {*the*} and {*'s*}.

3a.   Article → {±def, Poss}   (Chomsky 1970: 209)

  b.   [$_{DP}$ (SPEC) [$_{\bar{D}}$ Det XP]]   (Fukui 1976, Abney 1977)[1]

Both (3a) and (3b) commingle syntax and morphology. Notation aside, however, there is still an important difference between them. Fukui's system for example axiomatizes a claim that SPEC is licensed only by Determiners with Agreement features. By contrast, a non-Kase determiner such as English *the* licenses no Specifier (the phrasal 'subject') just because it lacks Agreement features.[2]   Fukui's claim potentially explains the well-known English homophony between the prenominal possessive suffix 's, the plural suffix *-s* and singular verb agreement *-s*, all having the same set of conditioned alternants {*-s, -z, -əz*}: they all manifest SPEC-head Agreement. It remains an open question why the heads of all three projections (possessive N, plural N and singular V) should involve the same Agreement element, spell out their Agreement features in just the same way. Such a claim is obviously unstateable in Chomsky's 1970 system, since by hypothesis the classical base rules were completely context-free.

Typological comparison in terms of Fukui's system clarifies the relevance of functional heads both to nominalization and to cross-categorial redundancy. As described below, Yorùbá (like English) has two affix-mediated nominalization processes, respectively lexical and syntactic. In Yorùbá, however, lexical nominalization is somewhat less restricted than it is in English, and than the original lexicalist hypothesis would expect. Specifically, only two out of the three properties listed in (1) appear to hold in Yorùbá, giving a matrix closer to (4):

		derived nominals	gerundive nominalizations
4a.	restricted productivity	+	−
b.	syntactic atomicity	−	−
c.	semantic idiosyncracy	+	−

Correlated with absence of lexical property (4b), syntactic nominalizations in Yorùbá lack one characteristic property of their English counterparts: a syntactic 'subject' corresponding to *John* in *John's criticizing the book* (cf. §2 below). This correlation is summarized in (5):

		English	Yorùbá
5a.	syntactic subject of gerundive nominalizations	+	−
b.	syntactic atomicity of derived nominals	+	−

The two positive traits in (5) could perhaps stem from a single, parametric property which following Fukui 1986 would be the availability of a Kase-assigning Determiner: present in English, where it has the form [*'s*]; absent in Yorùbá. In this regard, it is noteworthy that Yorùbá altogether lacks obligatory determiners or number elements, yielding the sharp grammaticality difference between the sets of sentences in (6) and (7):

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[1]Brame (1982) and Hellan (1980, 1986) also analyze the projection which subsumes the noun phrase as being headed by a determiner.

[2]Although his proposal has been equated with that of Radford (1990) on this point (cf. Whitman, Lee and Lust 1991; Whitman 1991), Fukui does not in fact assume that cross-linguistic differences reduce to the presence/absence of functional categories *tout court*:

> The question as to which of the three factors mentioned above, i.e. the existence of Functional categories, the existence of Kase-grid (agreement features associated with Functional categories), and the existence of SPEC, is to be considered as a real parameter (or parameters) is obviously an empirical question.   (1986: 262)

6a. Ayò-ọ́ rí ìwé.   7a. *John saw book.
          Agr see book

  b. Ìwé wà   ní ibí.   b. *Book is/are here.
      book exist at here   *There is/are book here.

  c. Ìwé pọ̀   jù   ní ibí.   c. *Book is/are very plentiful here.
      book be.abundant surpass at here

Along with the preceding contrast, goes a generally accepted claim (e.g. Bámgbóṣé 1966) that the Yorùbá morphemes usually glossed as determiners, and (mis)translated by English definite articles, are both syntactically and semantically more like demonstrative adverbs or deictic nouns, cf. the contrast between (8) and (9).

8a. ìwé e Ayò (náà)   9a. *the/that John's book
     book of   that.very

  b. ìwé e Ayò ('yẹn)   b. *that John's book (over there)
      book of   that.one

  c. ìwé e Ayò ('yìí)   c. *this John's book (over here)
      book of   this.one

Similarly, indefinite quantification is expressed in Yorùbá with a numeral: ọ̀kan 'one':

10. ìwée 'kan   11. a (certain) book
     book one

Another potential consequence of the absence of obligatory determiners in Yorùbá would be the relative mildness of the categorial distinction between verbs and nouns, as compared to English. Evidence for this difference goes well beyond nominalization data. For one thing, the category V in serializing languages such as Yorùbá includes items whose lexical semantics correspond to members of the categories A and P in nonserializing languages such as English. Even more strikingly, Yorùbá has no category A, and the category P which does occur is vestigial (closed).[3] A direct correspondence between instantiations of the category N in both language types is widely assumed, but this result is overdetermined: knowing that an open-class lexical item of Yorùbá is a noun tells you essentially just that it is not a verb, whereas membership in the class of nouns in English has a richer categorial entailment.[4]

In light of the above, Universal Grammar could plausibly *replace* (rather than *supplement*) one of the lexical features [±V, ±N] with the functional feature [±Det], a feature which identifies a language-particular closed-class inventory of morphemes. The same functional feature would also account for the external argument property (5a), thus explaining the correlation with categorial atomicity (5b). Some foundations for this step were laid by Marantz (1984), who shifts the burden of external argument licensing from lexical to functional categories. Consistent, too, with Marantz (1990), the function of functional heads could be extended from licensing to projection, by departing from the usual assumption that lexical items project both subject and object θ-roles. Instead:

12.   The external argument (subject) of a lexical projection (predicate)
        is projected nonlexically, i.e. by some functional head.

Given (12), the "category-ambiguous syntactic behavior" (Milsark 1988: 611) of English -*ing* between the verbal (Accusative-assigning) and nominal (Genitive-assigning) systems is less than surprising. Apart from

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[3]Cf. Awóbùlúyì 1972; Awóyalé 1988. Ìgbo shares essentially the same type: vestigial (closed class) A and a maximally closed class P (just one instance, cf. Welmers 1973; Máduká 1991. For Emonds 1985, the category P is nonlexical (functional or 'grammatical') even in English; however, the Kwa languages don't support the idea that A is any 'more' lexical than P.

[4]Hale (1988, 1989) reports that Warlpiri nouns systematically translate English adjectives and prepositions, hence its redundancy is the inverse of that found in Yorùbá, where it is verbs which carry these English functions. This aside, Warlpiri and Yorùbá make the same point.

the property of licensing a subject, the Yorùbá H tone gerundive prefix is identical to English *-ing*, with both lexical and post-lexical attachment possibilities. Semantically, both morphemes bind an event argument (cf. Sproat 1984). The only difference is the general availability of a Kase-marked Specifier position with *-ing*—an accidental property of English, with far-reaching consequences for its categorial inventory.

The next section reviews the empirical basis for the above argumentation, beginning with the absence of structural subjects in Yorùbá gerundive nominalizations.

2.   Gerunds without subjects

It can easily be observed that the formation of gerunds and in Yorùbá has only a subset of the consequences of its English counterpart. In Yorùbá, both a subject and an object cannot simultaneously be licensed in the extended projection of the same thematic head (13), though such examples are unremarkable in English (14).

13a.   *[pí-pa-rẹ́   (ẹ) ìlú] u   rẹ̀ [5]   14.   her destroying (of) the town
             Ci.H-smite-cut Gen town Gen 3sg

  b.   *[pí-pa-rẹ́   (ẹ) ìlú] ti rẹ̀
             Ci.H-smite-cut Gen town of 3sg

  c.   *pí-pa-rẹ́   ẹ   rẹ̀ ti ìlú
             Ci.H-smite-cut Gen 3sg of town

The same gap occurs with derived nominals:

15a.   *[à-pa-rẹ́   (ẹ) ìlú] u   rẹ̀   16.   her destruction of the town
             à-smite-cut Gen town Gen 3sg

  b.   *[à-pa-rẹ́   (ẹ) ìlú] ti rẹ̀
             à-smite-cut Gen town of 3sg

  c.   *à-pa-rẹ́   (ẹ) rẹ̀ ti ìlú
             à-smite-cut Gen 3sg of town

Prof. 'Sopé Oyèláràn (p.c.) informs me that the English example in (14) is expressed in Yorùbá by the verb focus relatives in (17):

17a.   pí-pa   (*ìlú) tí [ɪp ó pa   ìlú rẹ̀]
             Ci.H-smite town Rel   3sg smite town cut
             'the destroying that she did to the town'

  b.   pí-pa   (ìlú) rẹ́ tí [ɪp ó pa   ìlú rẹ̀]
             Ci.H-smite town cut Rel   3sg smite town cut
             'the (town) destroying that she did to the town'

The strategy in (17) is no last resort, available just in case of ambiguity between 'subjective' and 'objective' Genitives. Rather, Abraham (1958: xvii) attests that, even with intransitive verbs, the forms in (18)—exactly parallel to those in (17)—are ordinary alternatives, available alongside the subjective genitives in (19).[6]

18a.   lí-lo   tí   mo lo   19a.   lí-lo   ọ̀   mi
             Ci.H-go Rel 1sg go   Ci.H-go Gen 1sg
             'the going that I go/went'   'my going'

  b.   jí-já.de   tí   mo já.de   b.   jí-já.de   è   mi
             Ci.H-exit Rel 1sg exit   Ci.H-exit Gen 1sg
             'the exiting that I exit(ed)'   'my exiting'

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[5]The brackets in (13a-b) exclude the irrelevant reading '[the] destroying of her town'.
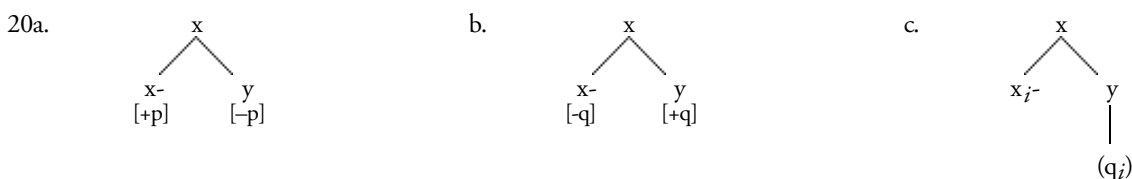
[6]Unsurprisingly, given the contrasts in (6) - (9) above, a literal English translation of the examples in (18) is barely intelligible. (18) and (19) can be taken as approximately synonymous. The glosses in (18) indicate another source of translational indeterminacy: the absence of morphological content in the functional category of Tense in Yorùbá

The basic question is how to represent Yorùbá gerunds and derived nominals, so as to explain the systematic difference with respect to their English counterparts. As suggested in §1, the conceptually most attractive proposal now available would appeal to independently attested differences in the cross-linguistic inventory of lexical and functional elements.

3.   The structures of privative nominalization

The cross-linguistic difference, whereby in Yorùbá but not in English the surface thematic grid of the nominalization is systematically smaller than than of the sentential projection of the base verb, might follow if nominalization of both types—lexical and syntactic—is *privative* in Yorùbá but *equipollent* in English In Trubetskoyan terminology, the standard features [±V, ±N] assert an equipollent lexical opposition between predicates and substantives (Chomsky 1974; 1981: 48; Reuland 1986: 47). This idea has several possible implementations.

Privative nominalization could involve either addition or suppression of a single lexical category feature. That is, some material *x*- which is affixed to a verb *y* could make it nominal either by add the nominal categorial information [+p] in the head constituent, roughly as in (20a), or block the percolation from *y* of a non-nominal feature [+q] as in (20b). Alternatively, as a variant of the latter scenario, *x*- could 'bind' or 'saturate' a categorial property *q* in *y*, as in (20c). Notice that, should *q* not be underlyingly present in the verb *y* , (20c) reduces to (20a).

20a.   x   b.   x   c.   x
           /\   /\   /\
      x-   y   x-   y x_i-   y
      [+p]   [−p]   [-q]   [+q] |
                                                                                            (q_i)

Consistent with all the alternatives in (20), there still are two possible typological claims. The weaker one just stated, preserving some of the standard view, is that nominalization is privative in Yorùbá and equipollent in English. However, once functional categories enter the picture, another possibility becomes available: both language types have privative nominalization, differing just in the inventory of functional elements. As in phonology (Kaye *et al.* 1985), syntactic theory is significantly constrained if all features are universally privative.

We observed in (13) - (16) above that, unlike what happens in English, the change from V to N in Yorùbá does not preserve the possibility of licensing a subject argument in the extended projection. In both langua-ges, the subject of the verb (*destroy, pa-ŗẹ́*) is licensed in the IP domain, i.e. by a functional category (Tense in English and Agr in Yorùbá, cf. Déchaine 1992a,b). Thus, respecting (12), the only argument which can be licensed by the verb itself (i.e. thematically, by the lexical category V) is the internal argument (*the town/*ìlú).

Now, because English has a Kase-assigning possessive Determiner in the extended N projection (roughly parallel to Tense in the extended V projection), English derived nominals can indirectly license possessor 'subjects' (*the enemy's destruction*) as well as objects (*the town's destruction*), in addition to prepositional objects such as *of the town* (cf. Fukui 1986). In Yorùbá, however, the gerund of a simplex verb takes either Accusative or Genitive. As shown in (21), the Yorùbá Genitive has a wide thematic range, like the possessive determiner in English and unlike the English prepositional possessor (#*the destruction of the enemy*, where *enemy* = Agent).

21a. *pí-pa-ŗẹ́   ìlú   b. pí-pa-ŗẹ́   ẹ   ìlú   c. pí-pa-ŗẹ́   ẹ   ŗẹ̀
      Ci.H-smite-cut town   Ci.H-smite-cut Gen town   Ci.H-smite-cut Gen 3sg
      'destroying [the] town'   'destroying of/in/about [the] town' 'her/his/its destroying
                                        '[the] town's destroying [sthg.]'   [sthg.]'

(21a) is accidentally out because *pa-rẹ́* is a lexicalized serial verb (a so-called "splitting" verb compound); its gerund does not assign Accusative, but does assign Genitive. Both possibilities are available for the simplex verb *jó* 'burn':

22a. jí-jó   ìlú   b. jí-jó   o   ìlú   c. jí-jó   o   rẹ̀
     Ci.H-burn town   Ci.H-burn Gen town   Ci.H-burn Gen 3sg
     'burning [the] town'   'burning of/in/about [the] town'   'her/his/its burning'
                                  '[the] town's burning'   ['her/his dancing']

To repeat, even assuming standard equipollent nominalization ([+V, –N] ⇒ [–V, +N] in English, this option apparently correlates with the presence of Kase-assigning possessive Det. If the correlation holds up for more languages, a more highly valued analysis could remove this redundancy, either by making the former parasitic on the latter or, less plausibly, vice-versa.

4.   Consequences for verbal syntax—summary

The above analysis for Yorùbá has illuminating consequences for verbal syntax: moved verb focus (a.k.a. 'predicate cleft') and verb serialization, in which Yorùbá and the other Kwa/Kru languages plus Haitian all differ from English and French. In the space available here, these consequences can only be summarized. In serial constructions, multiple verbal projections combining in a single, complex predicate, with some of the verbs corresponding semantically to Prepositions and Adjectives in non-serializing grammars (Awóyalé 1987, 1988; Déchaine 1989). Cross-linguistic variation in the form and interpretation of serial constructions depends primarily on the language-specific content of Infl (Déchaine 1992a). By contrast, Baker's 1989 analysis addresses these problems only by stipulating phrase-structure and Case assignment parameters.

In moved verb focus, a gerund formed from the V(P) head-governed by Infl appears in [SPEC, CP] (Awóyalé 1985; Manfredi & Láníran 1988). The specific form and interpretation of moved verb focus across Kwa/Kru and Haitian depends mainly on just two morphological properties: the availability of free (vs. bound) gerunds and the Kase properties of Comp (cf. Manfredi 1990). Such an analysis ties the moved verb focus construction to privative language-particular nominalization. The more orthodox analysis (e.g. Koopman 1984) makes no such claim and hence leaves unexplained the absence of moved verb focus in English.[7]

5.   H as a functional head

Yorùbá nominalizations divide themselves into two basic classes: syntactic and lexical. Syntactic nominalizations are fully productive and semantically transparent event-denoting formations, involving either a H tone element or a subject clitic pronoun, or else reduplication by itself. This disjunction of H tone and

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[7]The freedom of V⇒N conversion in Haitian verb focus (cf. Hutchison 1989) holds without prejudice to Filipovich's 1987 generalization that conversion applies in the lexicon — i.e. to form separate entries with partly arbitrary semantics — just to intransitive verbs:

i-a.   danse   '[to] dance'   b. danse   '[a] dance'
       dormi   'sleep'   dormi   'nap' OR 'sleep-salt in the eyes'
       krache   'spit'   krache   'spittle' [saliva]
       manje   'eat'   manje   'food'

Filipovich (1987: 108*f.*) observes that V→N conversion is blocked, just if the object is overt:

ii-a. *bwote   chèz yo   b. bwote   Jak la
        move-Nom chair Def-pl   move-Nom   Def
                                        'Jak's moving (done by himself)'

No such constraint exists for the affix-mediated nominalization in (iii):

iii-a. bwot-ay   chèz yo   b. bwot-ay   Jak la
       move-Nom chair Def-pl   move-Nom   Def
       '[the] moving of the chairs'   'Jak's moving (done by anyone)'

By contrast, the nominalization in 'predicate cleft' (in Haitian as well as Yorùbá) uniformly has a semantically regular, abstract (event/process) meaning, even for intransitive verbs.

subject clitic is a familiar one from the IP domain: the H tone may be identified with the H tone Agr that occurs in all finite Yorùbá sentences except those with clitic subjects or irrealis auxes, cf. Oyèlárǎn 1989; Déchaine 1992b). Examples of clitic pronoun nominalizations include the agent nominals in (23) and the possessor nominals in (24). The form in (25b) involves both a clitic subject pronoun and a control H tone. The minimal pair in (26) contrasts a transparent, syntactic nominalization and a partly opaque, lexical one.

23. ò-jé-iṣẹ́   ò-jó-ilé   pa-iná-pa-iná
     er-equal-duty   er-burn-house   smite-fire-smite-fire
     'messenger'   'arsonist'   'firefighter'

24. o-ní-mọ́tò   o-ní-owó [→ olówó]   o-ní-igi [→ onígi]
     3sg-possess-car   3sg-possess-money   3sg-possess-tree
     'car owner'   'rich person'   'wood owner/seller'

25. (Abraham 1958: 357; xxviii)
   a. ọ̀-kà-ìwé   b. o-ní-ìwé-é-kà
      ka-ìwé-ka-ìwé   3sg-possess-book-H-read
      'reader [nonspecific]'   'reader [= job title]'

26a. ò-kì-kọ̀-ìwé [→ òǹkọ̀wèé]   b. a-kọ̀-ìwé [→ akọ̀wèé]   (Oyèlárǎn 1989)
     3sg-Ci-write-paper   a-write-paper
     'writer = person writing'   'writer, literate person'

The chief H tone nominalization is the reduplicated gerund already seen. Essentially, however, the reduplicated segmental material exists solely in order to bear the H tone. Awóbùlúyì (1978: 118) points out that the reduplication is not always found on the surface:

27. Gloss for all forms: 'It's hard to do'
   a. Ó ṣòro   ó ṣe.   d. Ó ṣòro   ní í-ṣe.
      3sg be difficult H do   3sg be difficult at H-do
   b. Ó ṣòro   í ṣe.   e. Ó ṣòro   ní ṣí-ṣe.
      3sg be difficult H do   3sg be difficult at Ci.H-do
   c. Ó ṣòro   ṣí-ṣe.   f. Ó ṣòro   ní à-ti-ṣe.
      3sg be difficult Ci.H-do   3sg be difficult at à-from-do

Abímbọ́lá and Oyèlárǎn 1975 discuss the phonological nature of the derivation which yields (27a) and (27b) from (27c), and (27d) from (27e). The variant (27f) exemplifies a lexical nominalization of VP, to be discussed below.

The syntactic character of the H tone gerund is further shown by its role as *in-situ* event argument (italicized), cf. Awóbùlúyì 1972.

28a. Ajé lọ ì-lọ ì-yà, kò lọ *lí-lọ* kan.   ('Sopé Oyèlárǎn p.c.)
        go going turning Neg go Ci.H-go one
     'Aje went on a side trip, he didn't go [just] one going'

   b. Ikú-t-àrùn   ń   kan [i]lé e é *ré*…   [ré] ← /rí-rè/   (cited by Oyèlárǎn 1990
      death'n'disease Prog reach house of 3sg going   from Abímbọ́lá 1976: 160)
      'Death and Disease [were] haunting his house'

Besides H tone gerunds, the other H tone nominalizations are also clearly syntactic, judging by their complete productivity and transparency in raising and ECM constructions:

29a.   (Abraham 1958: xxvi)

   oúnjẹ ẹ́ jẹ   àga á kòn
   food   H eating   food H hit
   'the eating of food'   'the carpentering of chairs'

   b.   (Abraham 1958: xxvi)

   Ilẹ̀   yǐi yá   á rò.   Ilẹ̀   yǐi yá   ní rí-rò.
   ground this be.easy H hoe   ground this be.easy at Ci.H-hoe
   'This soil is easy to hoe'   'This soil is easy to hoe'
                                       cf. *This soil is easy hoeing*

   c.   (Abraham 1958: xxvii)

   Ó kọ́ ìwé é kà.   Ó kọ́ ìwé e kí-kà.
   3sg learn book H read   3sg learn book Gen Ci.H-read
   'S/he learned to read'   'S/he learned to read'
                                       cf. *S/he learned book-reading*

6.   Lexical affixes

Lexical nominalizations lack the H tone, which I have identified with a functional category (Agr), but involve a list of other affixes—some more productive and semantically transparent than others. The most productive, transparent lexical nominalization is formed with the prefix à-. Oyèláràn 1989 shows that à-nominalizations allow a variety of VP adjuncts.

				Cí-	à-ì-	à-ti-	à-
30a.		(k)ò	'Neg'	–	–[8]	–	–
b.		ń	'Prog'	–[8]	–	–	–
c.		má-a	'Prog'	–	–	+	–
			'Hab'[9]	+	+	+	–
d.		ti	'Perf'	+	+[10]	–[8]	+[11]
e.		ní-í	'Pros'[12]	+	+	–[13]	+
f.	*modals:*	lè 'can' / gbọdọ̀ 'must' / sẹ̀sẹ̀ 'just'		+	+	+	+

The basic observation in (30) is that the selectional restrictions of the bare nominalizer à- are stronger than those of complex nominalizers formed from it, and also than those of the H tone gerund (Cí-). Relevant data from Oyèláràn 1989 are given in (31)-(34), where I have adjusted segmentation and interlinear glosses for consistency with prior examples in this paper.

31a.   Mí-máa-lọ   ni   ó   máa lọ.   b.   Ní-ní-í-lọ   ni   ó   ní-í   lọ.
   Ci.H-Prog-go Comp 3sg Prog go   Ci.H-Pros-go Comp 3sg Prog go
   'It is continuous going that s/he is going' 'It is imminent going that s/he must go'

32.   à-ì-má-a-lọ   à-ì-ní-í-lọ   à-ì-tí-ì-lọ
   à-Neg-Prog-Hab-go   à-Neg-Pros-go   à-Neg-Perf-Neg-go
   'not going'   'not having to go'   'not having gone'

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[8]Presumably out because an element cannot select itself, semantically and/or morphologically.

[9]Oyèláràn shows that the basic habitual aux is *a*, so the *má*- element of this complex is probably related to progressive ń.

[10]n.b. Neg doubling: à-ì-ti ⇒ à-ì-tí-ì.

[11]It is unclear if this "+" refers to the factive *àti*- itself.

[12]Presumably consisting of *ní* 'have' + control H

[13]Out for semantic reasons: intuitively, there is near-complete contradiction between factive and prospective.

à-ì-lè-lọ
à-Neg-can-go
'not being able to go'

à-ì-ṣẹṣè-lọ
à-Neg-just-go
'not having just gone'

33. *à-ì-kò-lọ
à-Neg-Neg-go

*à-ì-ń-lọ
à-Neg-Prog-go

?*à-ì-sáà-lọ
à-Neg-indeed-go

34. à-ti-máa-lọ
à-Fact-Prog/Hab-go
'being in the process or habit of going'

à-ti-lè-lọ
à-Fact-can-go
'being able to go'

35. à-ṣe-kù
à-do-remain
'something left over'

ẹ̀-ṣẹ́-obì [ẹ̀ṣẹ́bì]
à-cut-kola
'a piece cut from a kolanut'

In certain cases, H tone reduplications duplicate or closely parallel *à-* nominalizations:

36. à-pa-jẹ = pí-pa-jẹ
x-smite-eat
'thing killed to eat'

à-bọ́-pa = bí-bọ́-pa
x-feed-smite
'thing fattened for slaughter'

37. (Abraham 1958: xxvii)

à-ì-mọ̀ olóko
x-Neg-know-farmer
'[something] unknown to farmers'

mí-mọ̀ (fún) olóko
Cí-know-give farmer
'[something] known to farmers'

Factoring out negation from (37a) leaves a core of synonymy with (37b). The synonymy observed in both (36) and (37) parallels the (partial) synonymy of *destroying* and *destruction* in English.

It might appear to argue against the lexical/syntactic split as I make it here that control H tone occurs apparently 'inside' the *à-* prefix, in examples such as the following

38. (Abraham 1958: xxvii*f.*)

a. à-ì-rí-[χ owó-ó-gbà]
x-Neg-see-money-H-receive
'impecuniosity'

à-ì-rí-[χ oorun-ún-sùn]
x-Neg-see-sleep$_N$-H-sleep$_V$
'insomnia'

b. à-ì-mọ̀-[χ ọ́-kà]
x-Neg-know-H-read
'illiteracy'

à-ì-mọ-[χ ìwé-é-kà]
x-Neg-know-book-H-read
'not knowing how to read written materials'

c. a-ní-[χ ayò-ó-tà]
x-have-ayò-H-play
'*ayò* player'

ayò-ó-tà
ayò-H-play
'playing [the game] *ayò*'

However, the bracketed constituent X in the examples in (38) is simply the N^0 formed from a VP, so the fact that this N^0 contains a control construction is invisible to the lexical prefixes.

At the X⁰ level, *ì-* closely parallels *à-* (although unlike *à* it does not combine with X^max).

39a. à-kà-tọ́n = ì-kà-tọ́n   à-kà-yé = ì-kà-yé   à-tún-kà = ì-tún-kà
      x-read-finish   x-read-be.clear   x-read-repeat
      'complete reading'   'reading comprehension'   're-reading'
      (Abraham 1958: 357)   (Abraham 1958: 357)   (Abraham 1958: 357)

  b. à-rọ = ì-rọ
      x-pour
      'funnel'
      (Abraham 1958: 66, 693)

ì- is unpredictable between instrument and more abstract denotations. Conceptually, a messenger may be closer to an instrument, lacking independent volition, than it is to an agent):

40.   ì-rán-iṣẹ́   ì-mú-iná   ì-mú-iná
      ì-send-errand   ì-hold-fire   ì-hold-fire
      'messenger/servant'   'smith's tongs'   'pungency/cleverness'
                                        (Awóbùlúyì 1978a)   cf. *John is sharp*
                                                                     (Abraham 1958: 429)

Lexical specialization between the two affixes exists in presumably old vocabulary (41a), and this possibility has been consciously exploited in the coinage of technical neologisms (41b):

41a. ì-tọ̀   à-tọ̀   (Abraham 1958: 651)
      ì-urinate   ì-urinate
      'urine'   'semen'

  b. ì-tú-pa-lẹ̀   à-tú-pa-lẹ̀   (Bámgbóṣé 1986: 39)
      ì-untie-smite-ground   à-untie-smite-ground
      'analysis'   'analysand'

Thematically, the denotation of *à-* and *ì-* is not regular. As seen above, either one may unpredictably project an instrument role instead of an agent. Further, the content of *à-* is not limited to the 'direct' argument or affectum:

42.   à-jẹ-bí   à-ká   (Abraham 1958: 38; 2)
      à-eat-give.birth   à-harvest
      'hereditary practice'   'granary'

Other lexical affixes are distributionally more restricted than either *à-* or *ì-*. Mid tone *a-* is always outermost:

43.   a-ṣòro   'difficulty'   (Abraham 1958: 619)
      ì-ṣoro   'difficulty'
      à-ì-ṣòro   'non-difficulty'
      a-ní-à-ì-ṣòro   [aláìṣòro]   'easiness'

Finally, the posited relationship between the H in syntactic nominalizations and the obligatory H Agr in IP may be related to another NP = IP equation, namely the absolutely free conversion of sentences into names (call it 'name-inalization') in this language:

44a. Ayé-fún-ọba   [= a palace title in Ọ̀yọ́]
      world-give-king   (Abraham 1958: 20)
      'The-world-is-entrusted-to-the-king'

  b. Ẹni-ajá-bá-wá-ni-ajá-bá-á-lọ   [- an Ifá title from Ìwòrì Méjì]
      person-dog-accompany-come-Comp-dog-accompany-H-go   (Awórìndé 1965: 20)
      'Who-the-dog-comes-with-it-goes-with'

7.   Summary

The Yorùbá lexicon is privative, with a feature [±N] but no orthogonal feature [±V]. The apparent cross-classification of these two features in English may be an artefact of the availability of Kase-assigning determiners such as 's (Fukui 1986: 55). The H tone morpheme in Yorùbá bridges between the nominal (DP) and sentential (IP) systems of functional projection.

In Yorùbá, superficially "result" and "instrument" nominalizations, along with other lexical nominals, are all [+N] (and redundantly [+D])—crucially, with opaque lexical domain as in (20a). Event (i.e. syntactic) nominalizations are only [+D]—a category obtained compositionally from the H tone morpheme—with transparent lexical domain as in (20c).

A critical review is needed of the apparent overdetermination of the facts by the standard lexical feature system which includes both [±N] and [±V], as well as a system of functional categories. In particular, comparison of nominalizations in English and Yorùbá suggests that the major locus of variation is the functional category system, and that only one lexical feature, [±N], subtends linguistically significant generalizations in either language.

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