1. Introduction

A close examination of Yoruba nominalizations will reveal that most nominalizations (i.e., the lexical nominals) derive single lexical items from simple or more complex stems, as in (1); whereas for some nominalizations (i.e., the non-lexical nominals) like those in (2), the complex stems, usually made up of several words, do not all merge with nominalization affixes into single lexical items. Examples of lexical nominals include:

(1) a. ìfìyèdènu [ì+ì-yè-de-inú] 'thoughtfulness'
b. arírebániye [a+ri-i-re-bá-ëni-jè] 'fair-weather friend'
c. àalmálekhônaraéninjánu [àl+má-lè-kó-ahôn-ara-ëni-nf-jánu] 'inability to control one's tongue'

Some of the stems in (1) are complex VP structures containing even as many as three verbal elements like rì 'see', bá 'do something together with', and jè 'eat' in (1b), or as many as eight different words, as evidenced in (1c). But they still merge into a single complex word.

On the other hand, not all the lexical items forming the equivalent of a complex (VP) stem for the nominalizations in (2) merge into a single lexical item, with the nominalization formatives:

(2) a. ãtì dàdè kÌnìùn (NF-ãtì to-crown of-lion) 'the crowning of the lion OR to crown the lion'
    b. ãlíféràn òkò ãtì aya 'not loving both husband and wife'

*This is a considerably abridged and reworked version of the paper presented at the 8th Conference on African Linguistics at UCLA in April 1977. Some sections have been removed, but the paper still contains the main points of the earlier one.

1Our Yoruba examples are normally followed by word-for-word English glosses in parentheses, and actual translations in single quotation marks.
Derived nouns from complex word groups like those in (1) are lexical nominals (LN), while the examples in (2), where most of the words fail to merge into single nouns with their nominalization formatives are non-lexical nominals (N-LN). As demonstrated in Ekundayo [1976a:247], there is no length limit to LN's, so that length is not the factor preventing the lexical nominalizability of (2b), but allowing it for (1c). Hence, there must exist other factors recognizable as the lexical nominalizability restrictions in Yoruba.

The task of this paper is to indicate that Yoruba lexical nominalizability restrictions are statable as general rules and that the distinctions between LN's and N-LN's are psychologically real, although, theoretically, Yoruba grammarians hardly notice such distinctions which they even recognize in practice. For example, neither Ward [1952:179] nor Bamgbose mentioned or examined the distinction, although, in practice, Bamgbose had LN's like alomadagbere 'one who leaves without saying goodbye' from his "two imperative clauses: lọ/má. dā gbere (go/not bid goodbye)" [1966:103], as well as N-LN's like ati lọ sī lúu wa 'to go to our town', from lọ sī lúu wa 'go to our town' [1966:104].

When several English words correspond to one Yoruba word in the word-for-word gloss, the English words are connected with a hyphen, though the word-for-word glosses are not always given. NF is the nominalization formative which may or may not be a prefix. A nominalization prefix is connected to what follows it with a [+], while the hyphen is sometimes used as in (1) to separate the different Yoruba words that merge into a lexical nominal.

In the representation of examples, two tones are indicated: the high tone ['] and the low tone ['], above the appropriate vowel. The mid tone is not represented. The underdot is used to distinguish e = [e], o = [o], s = [s], from ə = [ɛ], ŋ = [ɔ], and ŋ = [ʃ], respectively.

The orthographic representation of derived nominals is actually not a guide to whether such are LN's or N-LN's, since the important factor is the syntactic distinction. For LN's, representational practices vary as some grammarians tend to use the hyphen to separate all the words that merge into one with the nominalization prefix so that (1b), for instance, will only be represented in the form included in square brackets, and not like our representation before it. The same grammarian is even usually inconsistent in his representation. For instance, there is no syntactic explanation for Awoyale's (LN) representation ƙ-dárf-jì 'forgiveness', (p.409) vis-à-vis his other representations: ƙərən 'one who causes troubles', ƙərən 'a criminal', both from the separate words dà ƙən [Awoyale 1974]. If he intends to use the hyphen as an internal boundary marker, this should apply also to his ƙərən etc., as well as to the dárf of ƙ-dárf-jì which consists of dá and orf.
Nevertheless, theoretical recognition must be given to the distinction, since LN's and N-LN's are syntactically distinct. The former can be characterized by the following: they (i) take the syntactic and semantic features of single nouns (i.e., features like \([±Abstract]\) or \([±Animate]\)); (ii) come out as single-word items—though this is less significant than the preceding characteristic; and (iii) can be qualified as a whole unit by adjectives, articles, demonstratives, restrictive relatives and other nouns or pronouns in the genitive. However, the latter operate generally as noun phrases rather than in noun structural positions (except when they function as elements in partitive structures), do not come out as single word items, and cannot be qualified as a unit since different parts of a N-LN are normally separately qualified by adjectives and other relevant syntactic categories.

Owing to lack of space, only the qualification distinction will be illustrated. So, we have (3) for LN's but (4) for N-LN's, where the compared and qualified nominals are underlined:

(3) \(\text{'imotaraeqinikanc r\text{-}e \text{bur\text{-}uku ye\text{~}n \text{gan n\text{~}a\text{~} ni\text{~} o \text{k\text{~}u}}'}\)
selfishness your bad that very the is it remain
'the only remaining blemish is that very bad selfish habit of yours'

(4) \(\text{'im\text{\text{-}o ti ara gbogbo awon ok\text{\text{-}um\text{\text{-}rin pu}pa tf mo rf ni ile \text{wo}ny\text{\text{-}en}}'}\)
idea of self all they man red who I see at house those
nikan ni won ro pe o to
alone is they think that it right
'they imagined that only the ideas of all those light skinned men whom I saw at home are right'

While each of the five qualifiers before ni 'is', in (3) modifies the underlined LN, in (4), pu\(p\text{a} \text{ 'red', or \text{'light-skinned'} and its following relative clause modify ok\text{\text{-}um\text{\text{-}rin 'man', while nikan 'alone' modifies im\text{\text{-}o 'idea' or 'knowledge', but nothing modifies the whole underlined N-LN as a whole. This qualification pattern may then be used generally as a test for lexical versus non-lexical nominalizability in Yoruba in cases of disagreement among native speakers on what is acceptable realization.}^{3}\)

Other reasons for studying Yoruba lexical nominalizability restrictions might include the relevance of the effects of such studies on the

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\(^3\)The qualification pattern solution will easily resolve the problem which made Oyelaran object to the starring of some examples in the paper as presented at the 8th Conference. Total qualification of N-LN by definite and specific syntactic categories (see section 3 below) is not normal, since N-LN's would easily incorporate all such qualifiers internally.
number of lexical nominals available to discussions on mandatory lexical insertion (see Ekundayo [1976a:243-249]), the association of the observed restrictions with restrictions in other parts of Yoruba grammar (see the coordination restriction in section 3 below), and the merits or demerits of postulating for transformational grammar an autonomous morphological component, which will inevitably duplicate several syntactic rules in the composition of complex lexical nominal outputs of syntactic transformations.

2. Nominalization Source Restrictions

Restrictions against lexical nominalizability can arise from the nominalization process itself or from the internal structure of the nominalized expression. The first type, called nominalization source restrictions, will be examined in this section.

One nominalization class leads only to LN's. This class never involves any reference to the VP in its statement. Three members of the class are described by Bamgbose [1966:103-104] as 'Prefix + Nominal Group', 'Reduplicated Noun + Infix' and 'Reduplicated Noun' for our respective representations: onfrtkfsf 'conspirator' (from onf + rtkfsf 'conspiracy'), ilékílé 'any house' (< ilé 'house'), and ëgbëgbé 'society by society' (< ëgbé 'society'). They are only indirectly relevant to observations on lexical nominalizability restrictions since through them, we note that reference to the VP in the statement of a nominalization rule provides favorable conditions for non-lexical nominalizability. Since the relevance of non-VP-based nominalizations to lexical nominalizability restrictions is indirect, the relevant but indirect rule in this case need not be stated.

For VP-based nominalizations, three restrictions are observable, and these are related to either the types of nouns derivable from the nominalization process (giving two restrictive rules) or the intrinsic structure of the main verb itself. Three types of observations based on the nominalization process can be made on lexical nominalizability.

First, it is observable that nominalizations that derive agentive nouns invariably (though not exclusively) lead to LN's only. Hence, although à + VP for àtètèm'ólè = à + tètè-mú-ólè 'not arresting the thief in time' and a + VP for asè = a + sé 'strainer' or 'sieve' derive non-agentive nouns, the same operation with others similarly derive the agentive in (5):

(5) a. àlàkè = à + là- kè survive pet
'one who survives and we pet' (female personal name)

b. abéléjáyán = a + bá- éléja- yan-án help fish-seller fry it
'caretaker' (cf. arírebájí in (1b))
The class of VP prefixes illustrated here (including the VP doubling of (5d)) derives only LN's.

Second, two nominalization processes through which no agentive noun is obtainable can derive both LN's and N-LN's, e.g. àl + VP for the corresponding LN/N-LN pair in (1c) and (2b), and î + VP. These two nominalization processes are, however, particularly relevant to the structural restrictions examined later in section 3, since their conditions for lexical or non-lexical derivations depend on the internal structures of the nominalized VP's.

Third, nominalization formatives, which, in addition to inability to procure agentive nouns, are polysyllabic, and non-NEG, e.g. the âti of (2a) and lâti for lâti mäa fi îlê jônâ 'to cultivate the habit of burning houses', are not prefixed to other words and derive only N-LN's. Two restrictions can now be stated on the class exemplified in (5) and the one mentioned in this paragraph. So, we have the two rules (6) and (7):

(6) Rule 1. Given the rule NZ → NF + VP, if agentive nouns are not derivable from NZ, then this NZ is a possible source for non-lexical nominalizations.

(7) Rule 2. Given the rule NZ → NF + VP, if NF is polysyllabic and non-NEG, and agentive nouns are not obtainable from NZ, then the NZ derives only non-lexical nominals.

In (6) and (7) and in subsequent rules, NZ = nominalization, NF = nominalization formative, while X and Y will later stand for variables. Conditions favorable to non-lexical derivations are established in (6). This covers cases like (7), where only N-LN derivations are possible, and those for î + VP and âl + VP, which need the structural restrictions of section 3 to determine when either LN or N-LN is possible.

The last source restriction is the indivisible verb restriction. An indivisible verb is a polysyllabic verb which cannot be divided into two parts by an inserted object, e.g. purô in (8), whereas the rule for other polysyllabic verbs, like bàjê in (9) is that an object splits the verb into two:

(8) a. è yé purô 'please stop lying'
   b. wôn purô mô ̀ọrê mi 'they lied against my friend'

(9) a. inù wa bàjê mind our spoil
   b. è ba inù ̀ọrê mi jé you spoil mind friend my spoil
      'we are sad'
      'you make my friend sad'
The restriction on indivisible verbs is that once they occur after an NF, all other words after them retain their individuality by failing to merge into a single lexical item. This restriction, partly responsible for the N-LN realization of (2b), can be stated as (10):

\[(10) \text{Rule 3. Given the rule } NZ \rightarrow NF + VP, \text{ if } NP \rightarrow \text{X V Y}, \text{ such that V is an indivisible verb, X may be null but Y is non-null, then } NZ = NF + X + V \neq Y.\]

The condition that Y is non-null is needed before the boundary symbol can be introduced, but if Y is null, then we have a LN and the restriction does not apply.

Indivisible verbs look more nominal than verbal phonologically, since no Yoruba noun or attributive adjective is monosyllabic, and it appears that one reason for this restriction is that such verbs use their apparently nominal character to terminate lexical nominalizability.

3. Structural Restrictions

The only three structural restrictions to be examined here are the definiteness/specificness, the coordination, and the group numeral amalgamation restrictions. They deal with the exclusion of LN derivations caused by the internal structure patterns of nominalizations.

The definiteness/specificness restriction forbids the merging of constituents of a nominalization together to form one lexical item provided some of the constituents are definite or specific syntactic categories like náà 'the'. This restriction can be illustrated from abstract noun derivations. The putative subject of any abstract noun derived from VP's must not be definite or specific. For instance, when lîfè 'love', lègbóran 'obedience', lègbàgbò 'belief' as well as their negations-- àlîfè 'lack of love' àlègbóran 'disobedience' and àlègbàgbò 'disbelief'-- are respectively derived from the VP's fè 'to love' gbò òran 'hear matters' and gbà à gbó (take it listen) 'receive and accept it', using the l + VP and àl + VP rules, the putative subject of any of the VP's nominalized may be ènì kan (person one) 'someone' but nothing specific or definite like òkùnrin burúkú náà 'the bad man', or proper nouns.

From this observation, it is clear that as long as no definite or specific item occurs within the domain of a nominalization operation (e.g. within the eight words connected with hyphens in (lc), or even within nominalized VP's which are products of syntactic transformations, as in (lc), where ara 'self', is introduced into the nominalized VP through the Yoruba reflexive transformation), lexical nominalizability is possible. This restriction also applies to the underlined N-LN in (4), where gbogbo àwọn òkùnrin 'all the men' is specific. The restriction can then be stated as (11):
(11) Rule 4. If LN is a lexical nominal, and \( X \) is a specific or definite syntactic category which is also a possible qualifier of the whole LN, then \( X \) is not a member of LN.

Restrictive rule 4 is also relatable to the qualification pattern discussed earlier, while differentiating LN's from N-LN's.

The coordination restriction forbids the merging of constituents of VP's containing conjunctions, e.g. \( \text{àti } 'and', \text{tàbí } 'or', \text{ sì } 'and' \) (sentential), into a single lexical item. This constraint and the indivisible verb restriction apply to (2b): \( \text{àfèràn àti aya 'not loving both husband and wife'} \). There is an alternative method of nominalizing VP's dominating conjoined NP's through a transformational deletion of the conjunction and a repetition of the verb. A suitable VP for this constraint is provided in (12b), its impossible nominalization with the \( a + \text{VP} \) rule in (12b), and the alternative nominalization in (12c):

(12) a. \( \text{fè qọọ àti ìyá} \)  
    marry child and mother 'marry both the daughter and her mother'

b. *fọmọ̀ àti ìyá

c. fọmọ̀ fọjẹ àti ìyá 'one who marries the daughter and her mother'

One possible reason for this restriction is that Yoruba verbs and VP's are never conjoined. Hence there are no sentences like:

(13) a. *mo \( \text{jeùn àti sùn} \)  
    'I ate and slept'

b. *mo \( \text{ra òwé àti ta asò} \)  
    'I bought books and sold clothes'

because each non-serial main verb or VP must have its subject realized, and when this happens the sentence conjunction formative \( \text{sì } 'and' \) is used. This shows that some lexical nominalizability restrictions are relatable to other restrictions in grammar. Using the terms and variables of the predicate calculus, the conjunction restriction is statable as:

(14) Rule 5. \( (\exists x) (\forall y) (y \in L \land (x \subseteq y)) \)

i.e., for all \( X \) if \( X \) is a conjunction then there exists no \( y \), such that \( y \) is a lexical nominal and \( X \) is a proper subset of \( y \).

The group numeral amalgamation restriction deals with a syntactic expansion rule for numerals. Yoruba uses one NP expansion rule: \( \text{NP} \rightarrow \text{NP S} \) for numerals like \( \text{ègbèrùn ò díj nítà} \) (one thousand, it decreases by three) '997' and most of the other numerals. But for some numerals below \( \text{ègbàà '2,000'} \) a transformational rule optionally applies to the NP S expansion of the numeral, reversing the normal order (e.g. changing 20-5 to \( -5+20 \)) and introducing the formative \( \text{ní} \) (interpretable as 'from', i.e. 'below', or 'over' another numeral). Then, once this rule applies (cf. (15a \& b)), the numeral becomes a LN:
The conditions under which the T-rule introducing \( n\) applies, consequently triggering off lexical nominalizability, are stated in Ekundayo [1972 ch. IV]. Since this optional rule does not apply to the majority of numerals using the NP + NP S rule, N-LN representations are commonplace for numerals, and non-applicability of the said T-rule is a sufficient condition for non-lexical nominalizability. The restriction is stated as:

From the lexical nominalizability restrictions observed, it is obvious that not all verb phrases nominalizable in Yoruba lead to single lexical nouns in structure. Hence, not all VP's obtained after transformational operations will eventually lead, after nominalization, to the lexical insertion problem that necessitated the suggestion in Ekundayo [1976b] for the abrogation of the condition that lexical insertion transformations are mandatory on all lexical items. As suggested in Ekundayo [1976a and 1976b], complex nouns, obtained from a nominalization of the VP outputs of the true syntactic transformations of the standard theory of transformational grammar, cannot possibly have been inserted with non-complex nouns before any of the rules of the transformational subcomponent apply. Nevertheless, the earlier lexical insertion problem still exists, although, owing to the six restrictions now stated, we find that the theoretical problem arising from lexical nominalizability does not now affect all possible Yoruba VP's.

REFERENCES


