



The Syntax of Action Nominalization in Wolof

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Abstract: This paper provides an analysis of action nominalization in Wolof, a language spoken in Senegal. Following the generative grammar approach to language, the nature of this nominalization process is analyzed by making reference to its syntactic properties. The analysis shows that this nominalization has mixed properties as it can be related to both nouns and verbs. This is substantiated by the way it patterns with respect to adjectives, determiners, adverbs, aspect and tense. Specifically, action nominalization in Wolof can be related to a VP, but not a TP/IP.

Keywords: Syntax, Mixed Categories, Morphology, Nominalization, Wolof

1. Introduction

This paper sheds light on action nominalization in Wolof, a language spoken in Senegal. Wolof is an SVO language that belongs to the West Atlantic branch of the Niger Congo language family. The paper contributes to the research in nominalization by providing data from a language genetically not related to the languages most research on nominalization are based on.

Nominalization has been at the center of many researches since Lees [11], Chomsky [3] among others. Early research on nominalization claimed that nouns lack argument structure, that is they do not take arguments (see Higginbotham [9], (Dowty [5])). However, subsequent studies have provided evidence that nouns can take arguments depending on their lexical representation (Grimshaw [6], Hazout [8], Fu et al [7]). It is now widely assumed that nominals denoting an event do have verbal properties. For instance Alexiadou [1] argues that process nominals internally display verbal properties whereas externally they show properties of a noun. She posits that these mixed properties of nominals can be accounted for by the presence of some projections like Voice/v typically related to verbal clauses.

An example of this nominalization process is shown in (1). In (1)b derived from (1)a initial consonant mutation acts as the nominalizer. Apart from this, the latter are followed by the native marker *-u* and a noun class marker, *-m* in this case.

Note that the position of the internal arguments does not change.

- (1) a. Musaa jaay na gerte g -i
Musaa sell PERF peanut CL-the
“Musaa sold the peanuts”
b. n- jaay -u -m gerte g -i
NOM sell -GEN -CL peanut CL-the
“the selling of the peanuts”
c. *Awa n- jaay -u -m gerte g -i
Awa NOM sell -GEN -CL peanut CL-the
“the selling of peanuts by Awa” (intended)

Within the typology of nominalization (Koptjevskaja-Tamm [10] this strategy used in (1)b to form nominals is referred to as “argument-reducing type” because the expression of agents is not allowed in this construction as the ungrammaticality of (1)c shows.

This paper builds on Tamba [17] study on clausal nominalization in Wolof. It provides evidence that this construction patterns like a noun on the surface and can also be related to a VP, but not an IP/TP. To substantiate this claim, it is shown that some types of adverbial modification only associated with verbal clauses i.e. manner and time related adverbs, can occur in this type of nominalization unlike sentential adverbs which are not allowed to occur in this context. In the same way, types of elements typically related to NPs i.e. adjectives and determiners, for instance, can also occur.

2. The Form of the Action Nominal

In Wolof, this type of nominalization process is very complex as it involves various morphemes that can be related to consonant mutation, noun class and, genitivation.

Consonant mutation is a morphological process found in Wolof and in languages closely related languages like Pulaar and Sereer (McLaughlin [12]). For Ndiaye [14], consonant mutation refers to the fact that the initial sound of a word varies based on whether it is a noun or a verb. With action nominal constructions, consonant mutation is mandatory as shown in.

- (2) a. Faatu bind na tééré b-i
Faatu write PERF book CL-DEF
“Faatu wrote the book”
b. Musaa ànd na ci [*(m)- bind -u -m tééré b-i / m-i
Musaa agree PERF with NOM- write -GEN-CL book CL-DEF/ CL-DEF
“Musaa agrees with the writing of the book”
c. *Musaa ànd na ci [m- bind -m tééré b-i]
Musaa agrees PERF with NOM- write -CL book CL- DEF
“Musaa agrees with the writing of the book”

(2) a is the clause from which the complement of the preposition in (2)b is derived. (2) b is ungrammatical¹ without initial consonant mutation. Indeed, this category change from a verb to a noun accounts for the presence of a consonant mutation in this case. In addition, a noun class marker *m-* appears after the noun. As noun class markers occur with nouns, this provides evidence that the word *mbind* ‘writing’ has nominal features. Since definite determiners in Wolof occur postnominally, there is no place for the occurrence of two definite determiners. For this reason, either the determiner for the noun *tééré* ‘book’ (which is *bi*) or the determiner of the action nominal *mbindum tééré* ‘writing of the book’ can be used depending on whether the speaker wants to emphasize the action or the object (See Tamba [17]).

As for (2)c it provides evidence that the genitive suffix *-u* is mandatory as its absence yields ungrammaticality. The nominalization process is similar to typical genitive constructions in Wolof. Examples of typical genitive constructions are shown in (3).

- (3) a. Musaa gis na muus-u -(m)Awa
Musaa see PERF cat-GEN – CL Awa
“Musaa saw Awa’s cat”
b. Musaa gis na n (3)opp-u -(b) Awa
Musaa see PERF ear-GEN -CL Awa
“Musaa saw Awa’s ear”

(3)a and (3)b show that an action nominalization formation in Wolof is similar to the formation of a typical genitive as shown in (3). A similar morphological order (Noun-Genitive-Noun class) can be observed in both (3) and (3)a-b. The noun class following the genitive suffix is optional. These examples show that genitives can be formed with inalienable and alienable possessions in (3)a and (3)b respectively. The

suffix *-u* seems to have a role similar to English *of* in similar contexts. In English, the preposition *of* occurs in a context of nominalization associated with accusative case (Baker and Vinokurova [2]).

3. Verbo-nominal Properties of Action Nominalization

3.1. Nominal Properties

3.1.1. The Syntactic Position of the Arguments

It can be argued that this type of nominal has properties of a noun for various reasons. Indeed, it can occur in contexts traditionally associated with nouns. In addition, just like regular nouns, it can appear as a subject, object and object of a preposition in (4)a, (4)b and (4)c respectively.

- (4) a. Soxna fekke na [càcc -u -m ginaar m-i]
Soxna witness PERF NOM. steal -GEN -CL chicken CL-DEF
“Sokhna witness the stealing of the chicken”
b. [càcc -u -m ginaar m-i] bett na Soxna
NOM. steal -GEN -CL chicken CL-DEF surprise PERF Soxna
“The stealing of the chickens surprised me”
c. Soxna ànd na ci [càcc -u -m ginaar m-i]
Soxna agree PERF with NOM. steal-GEN-CL chicken CL- DEF
“Soxna agrees with the stealing of the chicken”

The fact that the nominalized element can occur in a context where regular NPs are expected substantiates the claim that it has nominal features.

3.1.2. Determiners and Adjectives

This is further supported by the presence of consonant mutation and noun classes which only occur with nominal elements. For this reason, the fact that demonstrative can be used in in (5)b is not surprising.

- (5) a. loxo b-ii / b-ee
hand CL-DEM / CL-DEM_{DIST}
“this/that hand”
b. [m- bind -u -m tééré] m-ii
NOM-write -GEN -CL book CL-DEM
“this writing of the book”

In (6) the nominal status of the clause is further tested with adjectival modification. The category ‘adjective’ is used with caution here. Like in most Niger Congo languages, the category ‘adjective’ is problematic (Seck [16]). Regarding Wolof, McLaughlin [14] argues that ‘lexical items most likely to be adjectives on a semantic basis behave in an overwhelmingly verb-like manner in Wolof’. Indeed, adjectives in Wolof can be inflected for tense, negation and can also appear with aspect as (6) illustrates.

- (6) a. daw b-i gaaw na
run CL-DEF be fast PERF
“The run was fast”
b. m- bind -u -m tééré m-u gaaw
NOM- write -GEN-CL book CL-CONN be fast

¹ Some urban Wolof speakers are not sensitive to the presence/absence of consonant mutation.

“the quick writing of the book”

In (6)a the word *gaaw* “be fast” has properties of both a verb and an adjective hence it is sometimes referred to as verbal adjective. However, what is relevant here is that it can modify NPs as (6)a and (6)b show.

3.1.3. Some Restrictions on the NP

Even though this construction displays properties related to a typical NP, there are some features it is incompatible with. Consider the following data:

- (7)a. *fekke na-ñu a-m/*benn n- jaay-u -m gerte*
witness PERF-3PL a-CL/one NOM-sell -GEN -CL peanut
“They witnessed a selling of peanuts”
b. **ñett -i n- jaay -u -m gerte*
three -PL. AGR NOM- sell -GEN -CL peanut
“three sellings of peanuts”
n- jaay -u -m gerte m -i / g -i
NOM- sell -GEN -CL book CL-DEF/ CL -DEF
“the writing of the/ a book”

In (7)a the NP can occur with an indefinite article but cannot occur with the numeral “one” despite the fact that, in Wolof, the numeral “one” and the indefinite article can be interchangeable in most contexts (Tamba, Torrence & Zimmermann [16]). In the same way, the numeral one is not allowed in this construction; however in (7)c, the definite determiner is allowed.

These differences with respect to the determiner system have been discussed in Grimshaw [6]. Using English, she provides evidence that the difference between nominal referring to a complex event and result nominal lies in the fact that the former can only occur with the definite determiner (but not with the indefinite determiner “a”, the numeral “one”). This is partially true for Wolof as the definite determiner can be used with the action nominal contrary to the numeral “one”. However, in Wolof, the action nominal can occur with the indefinite determiner.

3.2. Verbal Properties

3.2.1. The Arguments of the Nominal

As mentioned earlier, this type of nominalization process yields elements with mixed properties. In this section, I show that there are various features found in regular VP that are found in the related nominal form. Hazout [8], discussing action nominalization in Hebrew, argues that the related nominalization form “inherit the argument structure of the verb”. This can be substantiated by the fact that the nominal typically occur with the same number of arguments as the related verb and allow adverbial modification. Moreover, some affixes generally found with verbs are also found.

In (8) through (11) several types of clauses are used along with their nominal counterparts.

- (8)a. *Awa fecc na Unergative*
Awa dance PERF
“Awa danced”
b. *pecc -u -m Awa*
NOM. dance -GEN -CL Awa
“the dancing of Awa”

- (9) a. *bunt b -i tēj -u na Unaccusative*
door CL-DEF close -RFM PERF
“the door is closed”
b. *tēj -u -m bunt m-i*
close -RFM. GEN-CL door CL- DEF
“the door’s being closed”
(10)a. *Musaa jaay na gerte g -i Transitive*
Musaa sell PERF peanut CL-DEF
“Musaa sold the peanuts”
b. *n- jaay -u -m gerte g-i*
NOM- sell -GEN -CL peanut CL- DEF
“the selling of peanuts does not work”
(11)a. *Awa mey na Ayda xalis Ditransitive*
Awa give PERF Ayda money
“Awa gave Ayda some money”
b. *mey-u -m Ayda xalis*
give-GEN -CL Ayda money
“The giving of Ayda some money”

In (8)- (11) monovalent, bivalent as well as trivalent verbs are used. In each case the verb is used in a regular verbal clause. In (8) and (9), NPs are formed from intransitive verbs. These NPs have the same number of arguments as their verbal counterparts. In (10) a similar situation is noted except that there is a reduction in valency. Indeed, in the presence of an object, the subject cannot surface. Finally in (11)a, a ditransitive predicate is used; in the related NP in (11)b the two objects also surface.

These examples shed light on the fact that the nominal construction has verbal properties as the argument structure of the verb if it is derived from an intransitive verb, but only keeps the object (s) of the verb if it originates from a transitive or ditransitive.

3.2.2. Adverbial and Aspectual Modification

In this section, I show that action nominal construction can occur with adverb and aspect related elements. The following examples target the nominalization of verbs of clauses involving temporal and manner adverbs in (12) and (13) respectively.

- (12)a. *Musaa jaay na dàll y -i démb*
Musaa sell PERF shoes CL-DEF yesterday
“Musaa sold the shoes yesterday”
b. *n- jaay -u -m dàll y -i démb bett na ma*
NOM-sell-GEN-CL shoes CL-DEF yesterday surprise
PERF 1SG
“the selling of the shoes yesterday surprised me.”
(13) *ubbi- u -m bunt b -i nànk*
open-GEN-CL door CL-DEF slowly
“The opening of the door slowly”

When the temporal adverb *démb* “yesterday” in (12)b is used in a clausal nominalization, it yields a grammatical sentence. In the same way, the use of the manner adverb *nànk* ‘slowly’ in (13) is grammatical.

In the next examples, ideophones are used. They are defined by Doke [5] as a “a vivid representation of an idea in sound...a word, often onomatopoeic, which describes a predicate, qualificative or adverb in respect to manner,

colour, sound, smell, action, state or intensity". Torrence [19] characterizes them as some type of adverbs adding emphasis, intensity, manner or extent. According to Creissels [4] one cannot deal with manner adverbs in some African languages without making reference to ideophones. The following adverbs refer to a manner in which an action have been accomplished.

- (14)a. Faatu yàq na kër g -i yaxeeet
Faatu destroy PERF house CL-DEF IDEO
"Faatu destroyed the house completely"
b. yàq- u -m kër g -i yaxeeet
destroy-GEN-CL house CL- DEF IDEO
"The destruction of the house completely"
(15)a. xale b-i ubbi na bunt b-i faax
child CL-DEF open PERF door CL-DEF IDEO
"Faatu destroyed the house completely"
b. ubbi -u -m bunt b -i faax
open-GEN-CL door CL-DEF IDEO
"The opening of the door widely"

In (14) and (15) the use of the ideophones adds a manner component to the meaning. In other words, they give more information about the way the actions were carried. Interestingly, the action nominal can also occur with these ideophones. This is further evidence that these nominal constructions have verbal properties.

Apart from manner and temporal adverbs, aspectual phrases can also modify this type of nominal.

- (16)a. Awa bind na tééré ci ñaar -i waxtu
Awa write PERF book in two -PL hour
"Awa wrote a book in two hours"
b. m- bind -u -m tééré ci ñaar -i waxtu...
NOM- write -GEN-CL book in two -PL hour
"The writing of a book in two hours"

The aspectual phrase *ci ñaar -i waxtu* 'in two hours' gives an idea about the fact the completion of the action. Basically, this sheds more light on the fact that "only when AspectP is present is adverbial manner modification licit" (Alexiadou [1]).

Apart from these adverbs, there is another class of adverbial expressions that cannot occur with these nominals. Indeed, speaker-oriented adverbs are not allowed to appear alongside these nominal constructions.

- (17)a. ci dëgg dëgg, Awa bind na tééré
in be real be real Awa write PERF book
"Frankly, Awa wrote a book"
b. *ci dëgg dëgg m- bind -u -m tééré
in be real be real NOM- write -GEN -CL book
"Frankly, the writing of a book"

In (17) the nominal construction cannot include a speaker-oriented PP. To account for the difference between the behavior of the manner and time adverbs vs speaker-oriented adverbs, Hazout [9] argues that the former are attached to the VP level whereas the latter are attached to the IP/TP level. Alexiadou [1] further argues that aspect phrases are linked to Voice whereas manner and time adverbs are linked to the VP.

3.2.3. Verbal Affixes

The fact that action nominal construction can be related to a VP can be further substantiated by the fact that verbal affixes related to the VP can appear in the nominal construction unlike the ones related to tense.

In what follows, examples of affixes related to the VP (the causative *-al* and the anticausative *-u*) as well as affixes related to the TP (the negation marker *-u* and the past tense *-oon*) are provided.

- (18)a. Ami sore -al na n- jur -am causative
Ami be far -CAUS PERF NOM- be born-3SG_{POSS}
"Ami spaced the births (of her children)"
b. core -al -u -m n- jur y-i baax na
NOM.be far-CAUS-GEN-CL NOM- be born CL-the good
PERF
"Family planning" (lit.: the spacing of the births)
(19)a. bunt b -i tēj -u na Unaccusative
door CL-the close -RFM PERF
"the door is closed"
b. tēj -u -u -m bunt m-i
close- RFM -GEN-CL door CL-the
"the door's being closed"

In (18)b the nominalization process targets a verb that already appears with the causative suffix; the verb *sore* "be far" attaches to the causative suffix *-al*, which changes its meaning to "increase the distance". Then in the nominalization process, through consonant mutation, the initial consonant of the new word changes from *s* to *c*. In (19)b, the anticausative suffix *-u* follows the same pattern as the causative suffix. In the following, verbal affixes referring to the functional head T/I are used.

- (20)a. Musaa jaay -ul dàll y -i
Musaa sell-NEG shoes CL-the
"Musaa has not sold the shoes"
b. *n- jaay -ul -u -m dàll y -i
NOM- sell -NEG -GEN -CL shoes CL-the
"The non-selling of the shoes"
(21)a. Musaa jaay -oon na dàll y -i
Musaa sell -PST PERF shoes CL-the
"Musaa did not sell the shoes"
b. *n- jaay -oon -u -m dàll y -i
NOM- sell-PST -GEN -CL shoes CL-the
"The selling of the shoes"

When a verb carries a negation or a verbal suffix, it cannot be transformed into a nominal construction as the ungrammaticality of (20) and (21) shows.

4. Conclusion

In this paper, the properties of one type of nominal in Wolof, namely action nominal are discussed. This paper has provided evidence that it has mixed properties as it has features of both nouns and verbs by referring to how they behave with respect to adjectives, determiners, aspect and adverbs etc. This has shown that there is an asymmetry regarding the way they occur with some nominal elements as

well as some verbal elements. It can be concluded that these nominals belong to a hybrid class.

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