Possessive voice construction in Wolof

Sylvie Voisin

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Possessive voice in Wolof: A rara type of valency operator

1 INTRODUCTION

The purpose of this paper is to describe an uncommon valency operator in Wolof, the verbal morpheme –le which encodes a possessive relation between the subject and the object of a derived verb. After a brief presentation of background information to facilitate the discussion, internal possessive constructions in Wolof will be presented. First, the particularities of the “le-construction” will be compared to different strategies of external possession construction observed in different languages following the typology proposed by Payne & Barshi (1999). Second, the “le-construction” will be compared to the Japanese possessive passive, as well as to double derivation constructions, such applicative-passives in other languages. Finally, even if the possessive construction –le in Wolof, and external possession constructions or derivations including passive share some characteristics, I will concluded that this valency operator in Wolof is specific and will propose a hypothesis of its emergence.

2 WOLOF BACKGROUND INFORMATION

Wolof is a West Atlantic language spoken in Senegal and also in Gambia and Mauritania. As many Niger-congo languages, Wolof has a nominal class system. It is reduced in comparison with other Atlantic languages. It is compounded of 8 consonants for singular and 2 consonants for plural:
- singular: $b$, $k$, $l$, $w$, $m$, $g$, $s$ and $j$
- plural: $y$ and $n$

In this system, the consonants are used as support for determinant markers and can’t be analyzed as affixed class markers (*n-göor ; göor n-i “the men” ; göor n-ale “these men”).

Wolof has also a complex verbal inflexion system, including focus marking (Subject Emphatic, Verbal Emphatic and Object Emphatic).

The distinction between subjects and objects (without any distinction between transitive and intransitive subjects) involving contrasts in both constituent order (relatively rigid SVOX constituent order) and indexation of arguments in the verb form, but no case contrast. There is no class concordance between the nuclear function and the corresponding clitics. The subject clitics are combined with TAM morphemes and the object clitics have the following forms:

<table>
<thead>
<tr>
<th>1S</th>
<th>ma</th>
<th>1P</th>
<th>nü</th>
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</thead>
<tbody>
<tr>
<td>2S</td>
<td>la</td>
<td>2P</td>
<td>leen</td>
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<tr>
<td>3S</td>
<td>ko</td>
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Table 1 – object clitics

The system of verb suffixes coding valency changes is complex. Verbal suffixes encoding valency changes are:

- medio-passive: $-u$
- causative: $-e$, $-al$, $-le$, $-lu$, $-loo$
- applicative: $-e$, $-al$
- co-participative: $-e$, $-oo$, $-ante$, $-andoo$, $-aale$
- antipassive: $-e$
- possessive: $-le$

Table 2 – System of valency changes

1 The Wolof examples used here are extracted from various sources. The main sources are two dictionaries Wolof-French (Fal, Santos and Doneux 1990, Diouf 2001) and two story books (Keteloot L. & Dieng, B. 1989; Kesteloot, L. & Mbodj, C. 1983).
This system of valency alternations calls for some remarks. First, notice that a passive derivation is missing in this inventory. Second, Wolof includes in its system a derivation –le that I call possessives. This suffix will be detailed in the following sections. Third, even if most of these derivations are common cross-linguistically, Wolof uses different markers for encoding the same valency modifications: the causative is expressed by five different markers, the applicative by two and the co-participative by five. In each voice alternations, the suffixes are specialized either for different meanings, or for different verbal classes.

For example, causative suffixes can be divided in two classes of derivation according to verbal classes: (i) –e and –al for intransitive verbs, (ii) –loo, –lu and –le for dynamic verbs. But, in these sub-classes, each morpheme has a specific meaning, so the values of causation are different and the syntactic structures of the causative proposition may also be different.

The suffix –e is a lexicalized causative suffix for some unergative verbs, like génn ‘go out (intr.)’ / génn-e ‘go out (tr.)’ or some inaccusative verbs, like aay ‘be forbidden’ / aay-e ‘forbid’.

(1) a. Dox timis aay na.
   walk dusk be.forbidden P3S
   Walking during the dusk is forbidden.
   
   b. Aay-e nañu ku fi dugg.
      be.forbidden-CAUS N3P PRO here go.into
      We forbid anyone to enter here.

The derivation –al is a very productive causative derivation. It is compatible with all unaccusative verbs for product transitive causative counter-parts (bax ‘be boiled’ / bax-al ‘to boil’, wex ‘be white’ / wex-al ‘to whiten’).

a. Tan mi dal na ci médd mi.
   vulture DEF alight P3S LOC carrion DEF
   The vulture alighted on the carrion.
   
   b. Mu né ñu dal-al leen fii.
      N3S say N3P put.down-CAUS O3P here
      He says that they put them here.

The suffix –loo is the most common causative derivation. It is used with unergative and transitive verbs with an indirect causative meaning.

a. Tere nañu ku gor garab.
   forbid P3P PRO cut.down tree
   We forbade anyone to cut down trees.
   
   b. Ku la gor-loo suma dékku?
      REL O2S cut.down-CAUS POSS1S hut
      Who made you cut my hut?

The suffix –lu is used only on transitive verbs. It introduces a new argument, the causer, in subject position, but this derivation deletes also the causee. In other words, the –lu suffix has a double effect on the valency of the derived verb: an augmentation on subject position (causer) and a reduction on object position (the former subject, the causee). Thus, the result of this derivation on transitive verbs is a transitive verb with new grammatical relations. In (4)a., ñaw ‘to sew up’ has an agentive subject keen and a theme object mbubb. When it is derived with the suffix –lu (4)b., the

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3 By dynamic we understand all verbs with an agent subject, intransitive and transitive verbs.
4 The notions of unaccusative and unergative are taken from Relational Grammar developed by Perlmutter & Postal (1984) to divide intransitive verbs into two groups: those which have a patient subject – unaccusative verbs -; and those which have an agent subject – unergative verbs.-.
subject is the causer of the event and the theme is the object, but the former subject (the cause/agent) canʼt appear (4)c. In some sentences, the whole construction has a specific meaning, the causer is perceived as being the beneficiary of the event.

(4) a. Kenn ñaw-agul mbubb mi.
   nobody sew.up-NEG3S booboo DEF
   Noone sew the booboo yet.

b. Dama-y ñaw-lu roob.
   EV1S-INACC sew.up-CAUS dress
   I am making sew up the dress. (or I am getting the dress sown)

   I am making sew up the dress by Mamadou.

The suffix –le combines with unergative verbs and on transitive verbs. It introduces a new argument in subject position. This derivation has a relatively rare meaning, forming exclusively an associative causation. Traditionally, causative derivation is divided into two semantics groups: direct and indirect causation. Shibatani and Pardeshi (2001) show that these meanings constitute a semantic continuum, where the associative meaning is an intermediary sense between direct causation and indirect causation. In other words, associative causation is more frequently conveyed by a causative morpheme also coding direct or indirect causation. But, in some languages as in Wolof, this meaning has its proper marker.

(5) a. Tabax naa kër-am.
   build P1S house-POSS3S
   I built his house.

b. Tabax-le naa ko kër-am.
   build-CAUS P1S O3S house-POSS3S
   I helped him build his house.

Note that the causative derivation –le is different from the possessive le-derivation presented in this study. In possessive le-construction, the possessive relationships are induced, whereas in causative –le, if there is a possessive relationship between two entities, possession is obligatory marked by the internal possessive marker. Without this marker, the possession is not clear. For example, Tabaxle naa ko kër gi means “I helped him build the house”, the house can be possessed by me, by him or by somebody else.

Thus, each suffix has a particular effect, and the specific meaning is linked to particular verbal classes. The same distinction is established when different suffixes are listed for a specific voice. In some cases a diachronic hypothesis can be made for the emergence of this plurality of forms, but synchronically all these derivations co-occur. Evidence for a diachronic hypothesis can be observed in co-occurrence patterns. Compounded suffixes can be used on class a verbal class, but each derivation that make ups the compound can not be used alone on this kind of verb. For example, the derivation –lu is presented by Church (1981) as the fusion of an applicative derivation –al and the medio-passive derivation –u.


The applicative derivation –al adds a beneficiary object (7). On this new derived verb, the adjunction of medio-passive –u involves the deletion of the agent participant (the subject) and the
The meaning of this double derivation had been reinterpreted with a causative signification, described sometimes as a benefactive-causative. This composition can only be conceived of as the result of a diachronic process.

### 3 POSSESSIVE CONSTRUCTIONS

In Wolof, a possessor-possessum relationship can be expressed, as in other languages, by different strategies. Possession is built with the possessive lexical predicate *am* ‘have’ (9), *moom* ‘to own’ (10) and *yor* ‘to have with oneself’.

(9) Moo am xale.
    ES3S have child
    She has a child.

(10) Ku moom fas wii
    INTER own horse DEM
    Who owns this horse?

(11) Su yor-oon caabi ji, jox ma ko.
    HYP have.with-PAS key DEF give O1S O3S
    If he had the key with him/on him, he would have given it to me.

*Moom* and *yor* are used essentially for alienable possession, while *am* conveys both alienable and inalienable possession, ‘*Am na kër yu bare*’ ‘He has several houses’; ‘*Am na ñetti doom*’ ‘He has three children’.

Possessive predicates can combine with the suffix –e. The derivational –e morpheme present on these verbs is not productive; it operates only with possessive predicates. It doesn’t change the argument structure, but introduces a temporary possession.

(12) Mën-ul ñów, moo am-e xale bi.
    can-NEG3S come ES3S have-e child DEF
    She can’t come, she is the one who has the child.

Possession can also be expressed by a genitive construction, as illustrated in (13) or by a possessive determiner (cf. Table 3).

(13) Woto-u Sàmba bi (> Wotoo Sàmba bi)
    car-CONN Samba DEF
    The car of Sàmba.

| sama woto | my car | suñu woto | our car |
| sa woto  | your car | seen woto | your car |
| woto-am > wotoom | his/her car | seen woto | their car |

Table 3 – Possessive determiner
Against this background, we now turn to the possessive –le construction, the main topic of this paper. The derivation –le involved in this construction is included in the voice system and the features of the construction lead us to connect it to external possession constructions.

4 POSSESSIVE DERIVATION

The verbal possessive marker –le is a valency changing suffix. It increases the argument structure of the verb. Appearing on an intransitive verb, it derives a transitive verb with the following argument structure:
– an additional argument with the semantic role of possessor is introduced in the subject position;
– the object of the derived possessive verb cumulates the role of possessor, and the semantic role assigned to the subject in the non-derived construction.

(14) a. Woto bi gaaw na.
car DEF be.fast P3S
The car is fast.

b. Sàmba gaaw-le na woto.
Sàmba be.fast-POSS P3S car
Sàmba has a fast car.

c. Sàmba moo ko gaaw-le.
Samba ES3S O3S be.fast-POSS
Samba has a fast one.

In example (14)a., the subject is a patient/theme argument of which a state is predicated by the monovalent verb gaaw ‘to be fast’. In (14)b., the same verb gaaw contains an additional morpheme, the suffix –le. The same participant woto bi occurs with the same semantic role of patient. However, a new argument Sàmba is introduced in the sentence. Thus, the derivation –le changes the grammatical relations. The patient-subject woto is demoted to object position and shares all the features of an object, it can be pronominalized with ko (14)c.. The object woto receives an additional meaning of possessor. Sàmba is the new argument introduced in the subject position, and its semantic role is possessor. It can not be regarded as the agent, as it has no effect on the state of the patient woto.

The valency-increasing effect of the derivation –le differs from causative and applicative markers, which constitute the commonest types of valency-increasing operators. Sàmba in (14)b. is not a causer, as is the new argument added by causative derivation. Even if the system of voice in Wolof also has a causative suffix –le, this causative derivation has an associative semantics, as we have seen in example (5). Moreover, woto, in example (14)b., is neither a beneficiary, nor a comitative, nor an oblique argument promoted as the object of a clause, as it is the case in applicative constructions.

Now, if we go back to the features of the possessive construction with –le, we can also remark that the possessive relation between the two arguments of the derived verb does not involve any possessive morphology. Thus, the derivation –le builds a possessor-possessum relationship without specific possessive morphology, except the suffix –le itself.

This derivation is only possible with a limited class of intransitive verbs that can be characterized as unaccusatives, since a common feature of all those verbs compatible with the possessive –le is the non-agentivity of the subject. However, if most unaccusative verbs accept this marker, –le seems to be more productive with verbs expressing quality, as rafet ‘be beautiful’, dee ‘be dead, die’, baax ‘be good’ etc.
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(15) Baax-le na ay tééré.  
be.good-POSS P3S INDEF book  
He has good books.

(16) Góor gii, moo dee-le jabar.  
man DEM ES3S die-POSS wife  
This man’s wife is dead. (This man became a wiow.)

(17) Maa réer-le xar.  
ES1S be.lost-POSS sheeps  
I lost my sheep. (I’m the one who lost a sheep.)

5 EXTERNAL POSSESSION CONSTRUCTIONS AND OTHER POSSESSIVE CONSTRUCTIONS

The features of –le constructions can be compared with so-called external possession, i.e.

"[…] constructions in which a semantic possessor-possessum relation is expressed by coding the possessor (PR) as a core grammatical relation of the verb and in a constituent separate from that which contains the possessum (PM)." (Payne et Barshi, 1999: 3).

If we look again at the example (14), repeated in (18), the possessor Sàmba - the subject - and the possessum woto ‘car’ - the object - are two distinct constituents, treated as nuclear arguments of the verb gaaw-le.

(18) Sàmba gaaw-le na woto.  
Sàmba be.fast-POSS P3S car  
Sàmba has a fast car.

However, even if the construction of Wolof possessive verbs shares some features with the possessor-possessum relation described by Payne & Barshi in the external possession construction (EPC), it is nevertheless distinct from the different strategies of external possession used by different languages. In their typology, Payne & Barshi (1999) describe four different strategies:

- incorporation;
- possessor raising;
- applicative voice;
- EPC without any morphological marker, including the so-called ‘double unaccusative’ in Sinitic languages

5.1 Incorporation

In EPC with incorporation, such as in Guaraní (19) and (20), the possessor is encoded as the subject of the clause and the possessum is incorporated in the verb.

Guaraní (spoken in Paraguay, Velázquez-Castillo, 1999: 78)

(19) Che akā-jere.  
1INACT head-turn  
To me turns head = I’m dizzy

(20) Hetymā-po’is  
3INACT=leg-thin  
S/he had the legs thin (=thin legs)

5.2 Possessor raising

The term ‘possessor raising’ or ‘dative construction’ is commonly used for dative clitic constructions in Romance languages, such as French (21), Spanish (22) and Romanian (23). In Romanian, we can see that ‘dative constructions’ are not restricted to alienable possession. In this construction, the possessor is an argument of the verb distinct form the possessum. In French (21),
the possessor vous ‘you’ is the dative argument and the possessum the object argument of the verb couper ‘cut’.

French

(21) Il vous coupe les cheveux.
He cuts your hair.

Spanish

(22) Me da vueltas la cabeza.
To me turns head = I’m dizzy.

Romanian (Timoc-Bardy, 1996: 242)

(23) Îi pleac trenu-l
(he) him leave train-the
His train is leaving.

5.3 Applicative voice

EPC can be found in applicative clauses. In some languages, the applicative derivation does not require an internal possessive marker, as in Mohawk (24). In other languages, an internal possessive marker must encode the possessive relationship between the two nuclear arguments, see example (25).

Mohawk (Baker, 1999: 293)

(24) Wa-hi-'sere-ht-ôhare-'s-e'
I washed his car (better: I washed the car for him)

Oluta Popoluca (Zavala, 1999: 340)

(25) a. ø=?o:k-u=k  tan=majaw
B3(ABS)=die-CMPL=ANIM  A1(POSS)=wife
My wife died.

b ta=küj-kō:k-ü-w=ak  tan=majaw
B1(ABS)=APPL2-die-INV-CMPL=ANIM  A1(POSS)=wife
My wife died on me (or I got affected by the fact that my wife died)

In Wolof, the applicative derivation can be linked to possession relationship. With transitive verbs, the applicative marker –al adds a new object. When this object is a beneficiary, it can be the possessor of the ‘patient’ object. Nevertheless, in this case, as in Oluta Popoluca, the possessor-possessum relationship must be expressed by an internal possessive marker, the possessive determiner sama ‘my’ (26).

(26) Mamadu seet-al na ma sama jabar.
mamadou look.for-APPL  P3S 1S POSS1S wife
Mamadou has looked for my wife for me.

5.4 EPC without morphological strategy and ‘double unaccusative’

EPC without morphological marking is the last strategy. It presents many similarities with the –le constructions. In some languages, monovalent verbs can have a transitive structure with a meaning of possession without resort to any particular morphology.

In Ilkeekonyokie (a dialect of Maasai) (27), the subject encoded by the prefix āa- must be interpreted as the possessor of the object entítō ‘girl’. This possessive interpretation is induced only by the transitive use of monovalent verbs. Payne & Barshi (1999: 4) point out that, in this language, all monovalent verbs (derived or not) can appear in this type of construction.
Maasai, Ilkeekonyokie dialect (Payne et Barshi, 1999: 4)

(27) áá-yshú  en-tító.
3>1-be.alive  FEM.SG-girl.NOM
My girl is alive (with presumably positive effect on me).
(28) k-áa-ból  îl-páyyán  În-káa-yshú.
DSCN-3>1-open  MASC.SG-man.NOM  FEM.SG-mouth.ACC
The man will open my mouth. (litt. The man will open me the mouth.)

These EPC share some features with –le constructions. There is no internal possessive morphology and these constructions are restricted to monovalent verbs. But they differ by the absence of restriction on a specific verbal class, and by the absence of verbal derivation.

‘Double unaccusative’ constructions in Sinitic languages are also reminiscent of the Wolof constructions. Hilary Chapell (1999: 205) notes that ‘double unaccusative’ constructions are restricted to unaccusative verbs. She describes this construction as syntactically ‘aberrant’: “[...] syntactic construction where the rules of grammar, narrowly understood, are violated: in the double unaccusative, intransitive process verbs take two arguments, one more argument than the verb valency should allow. [...] The two arguments of the intransitive verb designate possessor and possessum.” (1999: 195)

Taiwanese Southern Min (Chapell, 1999: 204)

(29) l pài  tioû  tò-kha.
3SG  lame  PRES  left-leg
He has gone lame in the left leg.

Cantonese Yue (Chapell, 1999: 207)

(30) Kûi3  sei2  joh2  taaî3  taaî2.
3SG  die  PERF  wife
He was bereaved of his wife. (litt. He died wife.)

Thus, as is the case with the le-construction in Wolof, the two arguments of the clause are in the syntactic position of subject and object. Subject and object arguments are respectively, the possessor and the possessum. But, contrary to Sinitic and Maasai languages, in Wolof, the possessive constructions are not syntactically ‘aberrant’ because they are morphologically marked by –le. The external possession le-construction, in distinction to all strategies described, shows a specific morphology.

Now, the question is what kind of marker is this morpheme? Can we see in the –le suffix a complex verbal derivation which, in particular conditions, for example with unaccusative verbs, would take a possessive interpretation, as found in some languages with passive voice?

5.5 External possession resulting from passive voice or applicative-passive derivation

In this section, two uses of passive derivation in different languages will be examined: a) a specific use of the –(r)are suffix in Japanese, sometimes called the possessive passive or adversity passive, and b) a double derivation with the passive, similar to the applicative-passive derivation in Tswana. In these possessive passives in Japanese, the passive derivation does not have its canonical function and this specificity allows possessive interpretations.

Except for jau² ‘run, leave’ in Cantonese.
5.5.1 Non canonical voice strategy: the possessive passive in Japanese

When the passive suffix -(r)are is used with unaccusative verbs, a possessive relationship is established between the subject of the passive clause and the dative argument (prior subject) or affected relationship.

Japanese (Martin, 1959: 400-401)

(31) Watakushi-wa hón-o tor-are-máshi-ta. me-TOP book-ACC. take-PASS-POLI-PAST
I had my book taken.

Japanese (Gunji, 1987: 63-64)

Susan was acquitted by the court.

b. Tomio-wa Susan-ni keimusyo-ni ik-are-zunisun-da. tomio-TOP susan-DAT jail-to go-PASS-do.without-PAST
Tomio was not adversely affected by Susan’s going to jail.

(33) Susan-wa Noami-ni nak-are-ta. susan-TOP noami-DAT cry-PASS-PAST
Susan was adversely affected by Noami’s crying.

5.5.2 Double derivation: applicative-passive constructions

In Tswana, a double applicative-passive derivation on intransitive verbs produces an intransitive clause with an oblique argument introduced by ke ‘by’. With some verbs, a possessive relationship is established between the subject and the oblique.

Tswana (Creissels, CP)

(34) Batho ba shelwa ke mantlo. 2people SC2 burn.APPL.PSF by 6house
People’s houses are burning.

To summarize, on the one hand the le-construction in Wolof presents features of EPC. There is no internal possessive marker(s) in the clause. The possessor and the possesum are in different nuclear argument positions, respectively subject and object. The best syntactic test revealing that the possesum is an object in Wolof is pronominalization (cf. (14)), remember that there is no passive derivation in this language. The restriction on intransitive verbs connects the le-constructions to the “double unaccusative” (Sinitic languages) and EPC without a morphological strategy (Maasai). But, the verbal derivation –le in Wolof removes this construction from strategies of EPC, since the verbal derivation –le is not an applicative marker\(^3\). On the other hand, the comparison with possessive passive of Japanese and double applicative-passive derivation shows that possessive relationship between different arguments of the clause can be produced by passive or compounded derivation. But in this case, the linking between grammatical relations and the pair possessor-possesum is different from the one that occurs in le-construction. In Japanese, if the possesum is an accusative/object argument, the possessor is a subject/dative. In Tswana, the possessor has the subject function, but the possesum is demoted to oblique by passive derivation. Moreover, the absence of passive derivation in Wolof has been pointed out and the –le suffix can not be related to the medio-passive derivation –u ~ –ku. Even though a synchronic passive derivation is absent in Wolof, a hypothesis of complex derivation will be developed in the next section.

\(^3\) Applicative markers, in Wolof, are –al and –e.
6 EVOLUTIONAL HYPOTHESIS OF THE –le MORPHEME

The comparison with possessive passive and applicative-passive constructions leads us to consider the present form –le, in Wolof, as the possible result of the grammaticalization of a double applicative-passive derivation. But, synchronically, the mere fact that Wolof does not have a passive derivation makes it impossible to analyze the valency change encoded by the possessive suffix as a combination of applicative and passive, as it seems to be the case in Tswana. A plausible diachronic explanation is however that Wolof possessive –le results from the grammaticalization of a complex marker where the second marker is *-e, at a stage of evolution when passive in Wolof was coded by a suffix *-e.

6.1 Passive derivation in Atlantic languages

Doneux and Podzniakov (personal communication) have reconstructed a suffix *-i in Proto-Atlantic as a passive derivation. In some Atlantic languages, for example in different dialects of Diola, the reflex is –i (see Sapir (1965) for the Diola-Fogny and Bassène (2006) for the Diola-Banjal).

Diola-Banjal (Bassène, 2006: 226)

(35) a. Atejo na-jug-e figen si-bé sasu.  
Atejo s3s-voir-TAM hier CL4-vache CL4.DEM4  
Atejo has seen the cows yesterday.

b. si-bé sasu su-jug-i figen.  
CL4-vache CL4.DEM4 CL4-voir-PSF hier  
The cows have been seen yesterday.

In others languages like Singandum (a dialect of Sereer), Buy or Peul, the passive suffix is –e6. All of these languages are classified in the North Branch of the Atlantic family, as is Wolof.

Peul, dialect spoken in East-Niger (Labatut 1982)

(36) a. ngelooba monn-at Iisa  
camel annoy-TAM lissa  
The camel is annoying Iisa.

b. Iisa monn-ete  
lisa annoy-TAM.PASSIVE  
lisa is being annoyed.

So, the existence of a passive derivation –e in an earlier period in Wolof is conceivable. Some traces of this derivation are maintained in Wolof. For example we have already seen one derivation –e, that is specific to the possessive verbs and encodes temporary possession, in the same way that ser and estar do in Spanish. Ser is the copula used in possessive construction, but estar can be used to means a temporary possession, note that estar is also the copula expressing resultative states.

In the system of voices, several derivations involve a reduction of valency or a remodelling of grammatical relations7:

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6 In Peul, the passive derivation is combined with TAM markers and presents –a ~ –e variations. (Labatut, 1982: 270)
7 In some cases voices which have a decreasing effect, such as middle or reciprocal, are described as voices where arguments receive a new syntactic function and this modification of valency involves the reorganization of grammatical relations. But, this kind of description focusses on syntactic effect and hides semantic aspects of valency changes. In the reciprocal, for example, the reduction of syntactic valency is not correlated with the same reduction in semantic valency. The former object, at the same time that it is promoted to subject function, takes a new semantic role of agent, but it maintains its first semantic role of patient. And the former subject which keeps its syntactic function (subject) and its semantic role of agent, receives a new semantic role of patient. Consequently, this kind of voice is best described in
co-participative -e, -oo (<*u-e), -ante (<*ant-e), -andoo (<*ànd-u-e), -aale (<*aal-e)
antipassive -e

All of these voice markers include a suffix –e⁸. Alone, this suffix has two functions: antipassive and reciprocal.

The antipassive (AP) effect is linked to transitive (37) and ditransitive (38) verbs with recipient objects. When these verbs are derived by –e, the object/recipient is obligatorily deleted, but this deletion not mean that no recipient is implied in the process, similarly to AP in ergative languages, the AP derivation conveys a habitual or general meaning.

(37) a. Xaj bi du mât-e.
dog def. ENég3S bite-AP
The dog doesn’t bite.
b. *Xaj bi du matte xale yi
The dog doesn’t bite the children.

(38) a. Alal du jox-e màqaama.
fortune ENég3S give-AP prestige
Fortune doesn’t give one prestige.
b. *Alal du joxe màqaama sàcc bi.
Fortune doesn’t give the prestige to the thief.

With naturally reciprocal events as defined by Kemmer (1993), this derivation has a reciprocal function. The reduction of verbal valency can be observed either through the plurality of the subject (40) or the demotion of the object to an oblique function, see the clitic preposition ag ‘with’ (41)⁹.

(39) Lu mu daj, sànni la ko.
REL N3S meet throw O2S O3S
Anything that he meets, he throws it to you.

(40) Ñu daj-e foofu ci pénc mi.
N1P meet-REC there LOC square DEF
We meet there at the square.

(41) Ñu daj-e=eg ay waxambaane yu takku,
N3P meet-REC-with INDEF comrade CONN be.numerous
They met up with several comrades.

The other co-participative derivations also contain –e. Combined with other morphemes, –e produces different meanings such as distributive actions (–andoo¹¹) (42).

(42) Ñoo dugg-andoo kàrce.
ES1P enter-DISTR army
We went into the army at the same time.

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8 For more details on co-participative voices in Wolof, see Creissels & Voisin (to appear).
9 Naturally reciprocal events are events that are either necessarily (e.g. ‘meet’) or, or else very frequently (e.g. ‘fight’, ‘kiss’) semantically reciprocal. (Kemmer, 1993: 102)
10 Wolof is an ‘and-language’ in the terminology of Stassen (2000). In its vernacular varieties, the coordination of noun phrases in subject function is impossible (in urban variety, probably due to the influence of French, this kind of coordination is attested). Thus, if the speaker wants to present the participants in reciprocal actions as distinct entities, the best construction is to introduce the second participant into a prepositional phrase ak ~ ag.
11 The suffix –andoo is the result from the grammaticalization of –ànd-u-e ‘go.with-MEDIO.PASSIVE-e.'
This suffix \(-e\) corresponds to the Plurality of Relations marker\(^{12}\) (PR) described by Lichtenberk, (2000) for Oceanic languages. This term refers to a morphological marker which is used to encode reciprocal and certain other situations, but not reflexive situations. These others functions are: chaining, collective, converse, distributed, repetitive, depatientive, middle, kinship relations, and collective plurals. In Wolof, \(-e\) encodes reciprocal and depatientive (our antipassive) and with others morphemes:
- \(-ante\) encodes reciprocal situations with verbs denoting non naturally reciprocal events,
- \(-ando\) encodes simultaneous distributed situations,
- \(-oo\) encodes non simultaneous collective situations, and
- \(-aale\) encodes distributed situations.

6.2 Hypothesis of grammaticalization: \(-le < -al-e\)

The former section presented a proposal aimed at resolving the problem of the identity of the suffix \(-e\) present in the \(-le\) possessive marker, given the absence of passive derivation in Wolof. However, the identity of the \(-l\) or \(-al\) suffix has not yet been treated. In the presentation of causative markers, it was shown that some causative derivations are complex and that this complexity involves a suffix \(-al\), systematically reduced to \(-l\) in the compounded suffixes (cf. Church’s hypothesis for causative \(-lu\)). In the current system of valency changes, two suffixes both have a form \(-al\) and an effect of valency-increasing: a causative and an applicative suffix. Thus, one can ask does the suffix \(-al\) contained in the possessive \(-le\) derivation result from the causative or applicative derivation?

To answer this question, several characteristics can be explored. Presenting the \(le\)-construction as the result of the grammaticalization of several voice markers entails, on the one hand, explaining the syntactic configuration of the \(le\)-construction through a double reorganization of grammatical relations, and on the other hand, providing sound justification for the possessive reinterpretation of the \(le\)-construction through voice blending.

For the syntactic configuration of \(le\)-constructions, the option adopted here is that the suffix \(-e\) is responsible for the remodelling of grammatical relations and it can have a canonical or non-canonical use as in Japanese, and either the causative or the applicative derivation is responsible for the increasing valence of the intransitive verb.

On one hand, several arguments enter in favour of applicative derivation. First, only the applicative derivation seems to be related to EPC constructions, and this derivation has effects similar to those of the non-grammaticalized double derivations in Tswana and other Bantu languages. Second, Payne & Barshi (1999:17) note that even if a causative analysis might be suggested: “the difficulty of a causative analysis, however, is that clear causative morphology is not known to surface in EPCs (and to our knowledge, a causative solution for EP has never been proposed in the literature for any language).” Third, if transitivity of the possessive construction results from the two following operations on valency: augmentation via applicative or causative and reduction (or remodelling of grammatical relations) via passive (or more specifically in Wolof, by plurality of relations marker), then the possessive meaning is more difficult to explain in \(le\)-construction with causative than with applicative derivation. Indeed, if something has some quality and, in the same time, someone receives some emotional or psychological effects of this quality, then one possible reinterpretation is that the human being is the possessor of the thing, and the meaning of benefit is more probably conveyed by the benefactive applicative, than by a causative derivation.

\(^{12}\) For Lichtenberk, the link between reciprocal function and these others situations is what he calls plurality of relations.

“There is plurality of relations in an overall situation (event, state, etc.) if what can be considered to be basically one and the same relation holds more than once either between one or more participants and the event/state they are involved in, or between the relevant entities.” (Lichtenberk, 2000: 34)
Since syntactic reorganization with the applicative derivation is obligatory linked to an objectal augmentation of valency, the PR derivation might be responsible for the promotion of the new object to subject position and consequently the demotion of the former subject. But, this demotion is not correlated with an oblique function, as in the Japanese possessive passive where the possessum has an object function.

(43) Woto bi gaaw na.
The car is fast.

*Woto bi gaaw-al na Sàmba.
The car is fast for Sàmba.

Sàmba gaaw-al-e na woto bi.  
Sàmba has a fast car.

This is the single plausible reorganization to explain the subject function of the possessor with applicative derivation. The possessive interpretation is induced from the benefactive meaning of the applicative derivation –al. But, in Wolof applicative derivations are incompatible with unaccusative verbs. Woto bi gaaw-al na Sàmba means may be ‘The car has made Samba fast’ or something else, but never ‘The car is fast for/to Samba’.

Several arguments, however, enter in favour of a causative derivation playing a role in the system of voice in Wolof. First, there is already one causative suffix –le. This derivation has an associative meaning (cf. example(5)) and it is used only on dynamic verbs. Second, double applicative derivation and the plurality of relations marker with an AP function is attested in Wolof with dynamic verbs.

We have seen that the use of –e (with an AP function) is possible only with transitive verbs constructed with a recipient object, but is fully productive with ditransitive verbs, in particular with ditransitive verbs derived by means of the applicative marker –al.

(44) a. Togg naa yàpp wi.  
cook  P1S  meat  DEF  
I have cooked the meat.

  b. Togg-al naa la yàpp wi.  
cook-APPL  P1S  O2S  meat  DEF  
I have cooked the meat for you.

  c. Togg-al-e naa yàpp wi.  (> Toggale naa yàpp wi)  
cook-APPL-PR  P1S  meat  DEF  
*I have cooked the meat (for people).

And, as we can see, in this double derivation, the suffix –al keeps its form, it is not reduced in –l.

Third, the applicative derivation is never compatible with stative verbs, only the causative derivation –al is employed with this verbal class. The possessive meaning is difficult to explain through a causative derivation, probably because it is conveyed by the plurality of relation marker, but at the same time, this marker must involve the non-interpretation of causation.

(45) Woto bi gaaw na.
The car is fast.

Sàmba gaaw-al na woto bi.  
Sàmba makes the car is fast.

Sàmba gaaw-al-e na woto bi.  
Sàmba has a fast car.
While, syntactically, a double derivation involving applicative in the *le*-construction in Wolof is difficult to establish, a causative derivation is plausible. Semantically, the plurality of relations marker can be responsible for the abandon of the direct causative interpretation normally linked with *al* causative. *Sàmba* is reinterpreted as the endpoint of the event and not as the initiator.

7 CONCLUSION

The *le*-construction shares with EPC several features. The possessor and the possessum are in different core arguments of the derived verb, respectively the subject and the object. The possessive relationship established between the subject and the object is expressed only by the verbal derivation –*le*.

We compared the *le*-construction to EPC strategies. The strategy closest to Wolof is the strategy without morphology (Maasai and Sinitic languages), essentially because the composition of suffix –*le* is synchronically not clear. It presents the same form as the associative causative –*le*, but apparently it shares no syntactic and semantic effects with this causative derivation. We also presented two kinds of voice derivation. The possessive passive in Japanese has the particularity to function with intransitive verbs. In this non-canonical use, the passive derivation builds a transitive clause where the two arguments maintain a possessive relationship. In Tswana, a double applicative-passive derivation creates the same effect. On this basis, a diachronic hypothesis has been proposed for the verbal derivation –*le*.

Despite the absence of passive derivation in Wolof, some remnant of an ancient passive derivation *—j* has been presented. The different functions of this trace lead us to identify it as a plurality of relations marker. Indeed, in its antipassive function, the derivation –e gives a habitual or general meaning of the process, and in this way it conveys the meaning that the process on every potential recipient is the same. With its reciprocal function, the plurality of relations can be seen in that the relation between the A participant and the B participant is the same as the relation between the B participant and the A participant. But, with reciprocal function –e needs an added morpheme –*ant* to function with non naturally reciprocal events. With other morphemes, the plurality of relations marker encodes collective and distributed actions.

The second morpheme involving in the possessive –*le* had two possible sources: causative or applicative. With respect to strategies of EPC and double applicative-passive in Tswana, the applicative derivation should have been preferred. But, for the system of voice in Wolof, it appears more probable that the possessive construction is the counterpart of the associative causative derivation with unaccusative verbs¹³.

To summarize, the possessive marker in Wolof is the result of the grammaticalization of a causative marker – with an associative and direct meaning – and a plurality of relations marker. This diachronic hypothesis explains the syntactic organization of the possessive construction. The causative derivation adds a causer subject and the theme argument, of which a state is predicated, is demoted to a syntactic object. On this basis, the plurality of relations marker has a remodelling effect on semantic role. The subject is reinterpreted as the endpoint of the event and not as the initiator. Consequently, the causative meaning falls. The possessive meaning conveys by the whole construction is perhaps due to the associative meaning sometimes linked with the causative derivation –*al*. Or, as in the EPC strategy without morphology, the possessive relationship can be simply induced by the non-canonical use of unaccusative verbs (i.e. they are used as transitive verbs). Indeed, with the PR effect, the derived verb is still non-dynamic, and yet has a subject who presents many features of agent. In the same way, this diachronic hypothesis can explain why, with dynamic verbs, the causative meaning of causative –*le* (‘help, assist’) is fuzzy. The subject, as in

¹³ As Payne & Barshi (1999) note that “For the External Possessive Relation to assume a transitive subject relation is extremely rare cross-linguistically, and even where it does occur, it may mostly surface with rather stative transitive predicates.”
possessive constructions, looses its role of initiator of the action and is reinterpreted only as an associative-agent participant to the process Sàmba bey-le na ko tool yi ‘Sàmba helped him cultivate the fields’, and the dynamicity of the verb involves also that it is not interpreted as an endpoint participant.

Thus, the particularity of Wolof is to have developed a specific marker for possessive constructions from a causative derivation, and the syntactic configuration of these constructions permits including them into EPC. Finally, the absence of such markers in others world languages can be explained first, by the absence of a causative marker in the expression of EPC and secondly, the voice system of Wolof. This complexity is not specific to the Atlantic family as a whole but is a language specific property of Wolof.

**LIST OF ABBREVIATIONS for example in Wolof**

AP=antipassive; APPL=applicative; CAUS=causative; DEF=definite determiner; DEM=demonstrative; DISTR=distributive marker; ES1S=Subject Emphatic 1st person singular; ES3S=Subject Emphatic 3rd person singular; EV1S=Verbal Emphatic 1st person singular; HYP=hypothetic; INACC=imperfective (inaccompli); INDEF=indefinite determiner; INTER=interrogative; LOC=locative preposition; MDP=medio-passive; N3P=Narrative 3rd person plural; N3S=Narrative 3rd person singular; NEG=negative; O1S=object clitic 1st person singular; O2S=object clitic 2 person singular; O3P=object clitic 3rd person plural; O3S=object clitic 3rd person singular; P1S=perfect 1st person singular; P3S=perfect 3rd person singular; PAS=past tense; POSS=possessive voice; POSS3S=possessive determiner 3rd person singular; PR=plurality of relation marker; PRO=pronoun; REC=reciprocal; REL=relative marker.

**REFERENCES**


