

The structural category of past tense *woon* in Wolof

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This article investigates the structural distribution of the past tense morpheme *woon* in Wolof. In negative sentences the verbal suffix is excluded. Following Zribi-Hertz and Diagne 2002, two possible locations in which the feature +PST can be generated are identified: in the head of TP or in Spec of TP, realized as a verbal suffix and an adverb respectively. It is shown that the distribution of +PST is reversed between affirmative and negative contexts. A systematic approach involving contextual allomorphy and a weakened version of the No Lookahead Principle is applied to the Wolof data to explain the absence of the past tense suffix on the verb in negative contexts.

1 Introduction

This article addresses the complementary distribution of two inflectional affixes in Wolof. The two affixes in question are the negative suffix *-ul* and the past tense suffix *-oon*. (To avoid confusion over the various phonetic realisations of these suffixes, I will refer to them using their abstract morphosyntactic features, +Neg and +PST respectively, unless the phonetic content is relevant.) The presence of +Neg on the verb seems to prohibit the appearance of +PST as a verbal affix. What is confusing about this complementary distribution is that Negation, as will be shown later, is higher in the syntactic structure than Tense. Yet it conditions the behaviour of a lower node, Tense, violating the No Lookahead Principle. I argue that the negative suffix *-ul* and the past suffix *-oon* are in complementary distribution at the surface level but the features +Neg and +PST are not incompatible as has been previously assumed (Zribi-Hertz and Diagne 2002).

The next section presents a brief overview of the relevant aspects of verbal morphology in Wolof and the syntactic hierarchy of the inflectional domain. In section 3, I introduce data showing the distribution of negative and past suffixes. Following a discussion of this data, I take a small detour to explain the No Lookahead Principle and Contextual Allomorphy (Bobaljik 2000) in section 4 and then apply these principles to the Wolof data to provide a systematic approach to the complementary distribution of *-oon* and *-ul*.

2 Verbal Morphology

In Wolof, verbs are always inflected for the person and number of the subject and optionally for negation and tense. The only overt tense inflection is the past tense suffix *-oon*, which is, again, optional as time reference in Wolof is given primarily by aspectual relations. Verbs are lexically specified for either perfective or imperfective aspect. Stative verbs are imperfective and receive a progressive (present) reading and non-stative verbs are perfective and receive an accomplished (past) interpretation (Njie 1982; Dunigan 1994; Zribi-Hertz and Diagne 2002; Mc Laughlin 2004). Imperfective aspect is overtly indicated with non-stative verbs by an auxiliary verb *di*.

Inflectional affixes are always suffixes and attach to the verb or the auxiliary *di* via Head Movement of the verb or auxiliary to Pers. All inflectional elements are introduced via functional heads. For our purposes, I adopt a slightly simplified version of the inflectional domain put forth by Zribi-Hertz and Diagne (2002). There are four inflectional heads dominating the verb: Pers > Neg > T > Asp > V. Of these elements, only the verb and the aspectual auxiliary stand as independent words. The ordering of inflectional elements can be seen via the attachment order in example (1) as well as the hierarchical representation in Figure 1.

- (1) Xale yi d-oon-u-ñu lekk ceeb bi
 child DEF.SG IMP-PST-NEG-3PL eat rice DET.SG
 ‘The children would not eat the rice.’

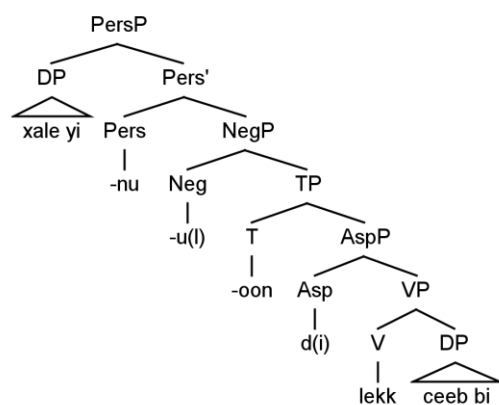


Figure 1.

According to this structure, +PST is generated in T and realized as *-oon*. In the next section, I present data that show this structure is not adequate for Wolof.

3 +PST

The +PST feature is traditionally placed in T. While this is the most logical place, data from Wolof show that the expression of +PST is more complicated than this; +PST can surface as a verbal suffix as in (1) or as an independent word separated from the verb as in (2).

- (2) Lekk-ulo ko woon
 eat-NEG.2SG OBJ PST
 ‘You did not eat it.’
 (Mc Laughlin 2004; 246)

The morphology in (2) clearly shows that the verb has raised to Neg and Pers without the +PST morpheme attaching to the verb. This indicates, unlike the above structure predicts, that in this sentence +PST is not in T since a verb cannot bypass a head position while raising. The presence of the object clitic further reinforces the conclusion that +PST could not have been generated in T as previously assumed.

Zribi-Hertz and Diagne (2002) explain the variable positioning of +PST by proposing that +PST feature is generated in two different positions: either T or the Spec of TP. When generated in T, +PST surfaces as a verbal suffix, *-oon*. When generated in the Spec of TP, +PST surfaces as an adverb, *woon*, uninvolved in verb movement. They further support this proposal by showing that +PST can optionally be expressed twice in the sentence.

- (3) Xale yi lekk-oon-nañu woon ceeb bi
 child DET.SG eat-PST-3PL PST rice DET.SG
 ‘The children had eaten the rice in the past.’

It is clear that there must be two positions for +PST in order to have two realizations of +PST in the sentence.

Zribi-Hertz and Diagne (2002) do not address why +PST can appear as a verbal suffix as in example (1) while other times as an adverb, as in example (2). For their analysis, the position of +PST is a matter of choice, either T or Spec of TP or both. However, looking at the data more closely, the presence of the adverbial +PST is restricted by the presence or absence of the suffix.

3.1 Restrictions on +PST in Spec of TP

There are two possible constructions with +PST in affirmative sentences; +PST can be expressed as i) a suffix on the verb or ii) a suffix on the verb and additionally as an adverb.

- (4) Xale yi lekk-oon-nañu ceeb bi
 child DET.PL eat-PST-3PL rice DET.SG
 ‘The children had eaten the rice.’
 (Zribi-Hertz and Diagne 2002; 828)
- (5) Xale yi lekk-oon-nañu woon ceeb bi
 child DET.SG eat-PST-3PL PST rice DET.SG
 ‘The children had eaten the rice in the past.’
- (6) *Xale yi lekk-nañu woon ceeb bi
 child DET.PL eat-3PL PST rice DET.SG
 ‘The children ate the rice in the past.’

In example (4), +PST is generated solely in T and surfaces as the verbal suffix *-oon*. In example (5), +PST appears twice in the sentence: as the verbal suffix *-oon* and as the adverb *woon*. Example (6) shows that the adverbial form is only permitted when the suffixal form is present. +PST cannot be generated solely in Spec of TP. The distribution of +PST is further restricted in negative sentences.

- (7) *Xale yi lekk-oon-u(l)-ñu ceeb bi
 child DET.PL eat-PST-NEG-3PL rice DET.SG
 ‘The children had not eaten the rice.’
 (Zribi_Hertz and Diagne 2002; 831)
- (8) Xale yi lekk-u(l)-ñu woon ceeb bi
 child DET.PL eat-NEG-3PL PST rice DET.SG
 ‘The children had not eaten the rice.’
 (Zribi-Hertz and Diagne 2002; 831)

Unlike the affirmative example, the +PST morpheme, *-oon*, cannot co-occur with the negative affix, *-ul*, on the verb as shown in (7). There is only one way to express past tense in negative sentences, using the adverbial form *woon*.

There is one exception to this distribution that remains unexplained; *-oon* and *-ul* can co-occur when attached to the imperfective auxiliary *di*. This is the only example which shows both suffixes.

- (9) Xale yi d-oon-u-ñu woon lekk ceeb bi
 child DET.PL IMP-PST-NEG-3PL PST eat rice DET.SG
 ‘The children would not have eaten the rice in the past.’
 (Zribi-Hertz and Diagne 2002; 831)

The verb in (7) is not only lexical but non-stative and thus is inherently marked for perfective aspect. The auxiliary *di* in (9) is, however, marked for imperfective aspect. The hypothesis that aspect restricts the combination of +PST and +Neg is testable using stative verbs, which are lexical but inherently imperfective.

- (10) Xale yi xiifu-ul-ñu woon
 child DET.PL hungry-NEG-3PL PST
 ‘The children were not hungry.’

- (11) *Xale yi xiifu-oon-ul-ñu
 child DET.PL hungry-PST-NEG-3PL

Stative verbs show that the aspectual difference between examples (7) and (9) does not explain the difference in the attachment of *-oon* as they pattern with non-stative lexical verbs. It is worth mentioning that the auxiliary *di* + *oon* is never interpreted as Imperfective Past as its morphological components would suggest. Instead, it gets a conditional reading, ‘would’ as seen in the translation of example (9). The morphological composition of *doon* merits further investigation but will not be addressed further in this article.

In summary, data from affirmative sentences shows that +PST can only be generated in Spec of TP if it is first generated in T while data from negative sentences show that +PST cannot occupy T but must occupy Spec of TP.

+PST	Affirmative	Negative
T	YES	NO
T and Spec of TP	YES	NO
Spec of TP	NO	YES

Figure 2.

The affix/adverb analysis of Zribi-Hertz and Diagne accounts for some of the data presented here but it cannot account for the complementary distribution of +PST and +NEG on lexical verbs. They stipulate that in negative sentences the head position, T, remains empty but do not elaborate on how a node can affect the derivation at lower levels. Strictly speaking, it should not. Tense is generated before Negation, therefore, information of polarity should be of little importance during the fusion of the Tense head. I argue that Negation does not in fact affect the morphosyntactic derivation of tense. When present in the sentence, +PST is

always generated in T and can be reiterated by a second +PST specification in the Spec of TP. The complementary distribution of negation and past tense is the result of allomorphy at the level of vocabulary insertion, which is discussed in the following sections.

4 Contextual Allomorphy

In this section, I stray momentarily from the discussion of Wolof data to describe the No Lookahead Principle (or NLP) and its role in Contextual Allomorphy. Bobaljik (2000) addresses the validity of the NLP as a principle of morphosyntactic derivations. (See Simpson and Withgott 1986 for a more detailed discussion of the NLP.) In its strongest form, the NLP states that morphological derivations are cyclical and only information from earlier cycles in the derivation is available to condition morphophonological processes (such as allomorphy) in later stages. This essentially means that the form of a morpheme added early in the derivation will not be conditioned by another morpheme added later in the derivation. Stem allomorphy, such as the English *receive/recep-tion*, shows that the addition of an affix can condition the form of the root, which violates the NLP. Bobaljik proposes a very specific weakening of the NLP to account for such allomorphy. He asserts that allomorphy resulting from morphosyntactic features is outwards sensitive and the NLP does not apply, while allomorphy resulting from morphophonological features is inwards sensitive and thus follows the NLP.

To support his proposed weakening of the NLP, Bobaljik presents data from Itelman verbal morphology. In Itelman, the verb is inflected for object and subject agreement. The form of the object agreement suffix is conditioned by the features of the subject but the subject prefix is never conditioned by the features of the object. What is crucial from this, is the fact that the more peripheral subject prefix conditions the choice of allomorph for the earlier object suffix. Figure 3 shows the allomorphic variation of the object agreement suffix as presented in Bobaljik 2000 (pg 7).

Itelmen Agreement: 3 Person DO		
Subject	Direct Object	
	3SG	3PL
1SG, PL Impersonal	-čen	-čeʔn
2 SG Real	-(i)n	-(i)ʔn
Irreal	-x(č)	-(x)iʔn
2PL	-sx	-sxiʔn
3SG, PL	-nen	-neʔn

Figure 3.

This type of “outwards sensitive” conditioning is possible because it is triggered by morphosyntactic features. The derivation of the verb is completed with abstract feature bundles and at the end of the derivation each feature bundle is given phonetic content during Vocabulary Insertion. The morphosyntactic features are already present and the NLP does not apply. In addition, Vocabulary Insertion uses up the features of each particular node so they are no longer available to condition allomorphy in later morphemes. Thus, the subject’s features are present to condition the insertion of a particular vocabulary item for the object agreement resulting in allomorphy. However, the object features are not present at the time of insertion of the subject prefix and so the object never conditions its phonetic form in Itelman.

If we apply this weakened version of the NLP to Wolof, we can correctly account for the superficial complementary distribution of +PST and +Neg as a case of contextual allomorphy similar to the Itelman example. I explain this analysis in the next section.

4.1 Contextual Allomorphy in Wolof

It is clear that +PST can be generated in two positions simultaneously as shown in example (5). I have shown that +PST must be generated in T in order for +PST to be generated in Spec of TP. The presence of the adverbial form is predicated the affixal form. In negative sentences however, the morphosyntactic feature, +Neg triggers the selection of a null allomorph for +PST during Vocabulary Insertion much like the subject features described in the Itelman data above. Since +Neg is a morphosyntactic feature generated before Vocabulary Insertion, there is no NLP violation. Thus when +Neg is present on the verb, there will be no overt phonetic realization of past tense. However, the feature +PST is still generated allowing the reiteration of +PST in Spec of TP. The +PST specification located in Spec of TP stays outside the morphological domain and remains thus, unaffected by negation; *woon* surfaces as an adverb indicating the past nature of the event. However, in affirmative contexts, the adverb never surfaces without the suffix because there is no feature to condition the selection of the null allomorph; *-oon* surfaces every time.

The analysis presented has several advantages. First, in specifying that +PST is always generated in T, there is no need to create an empty head position simply to fill the Spec of that head later, as proposed by Zribi-Hertz and Diagne (2002). In addition, it provides a systematic approach to explain the absence of the +PST affix (*-oon*) in negative contexts.

5 Conclusion

My goals in this article have been i) to present a description of the distribution of the past tense suffix *-oon* and adverb *woon* as well as ii) to present an explanation for the complementary distribution of the negative suffix *-ul* and the past tense suffix *-oon*. It has been shown that the feature +PST can be generated in two possible positions: T or Spec of TP. I have further shown that the choice between these two positions is not entirely free; the specification of +PST in Spec of TP is only licit if +PST is first specified in T. I argue that the complementary distribution of the negative suffix and the past tense suffix is only superficial and is the result of contextual allomorphy. The feature +Neg triggers the insertion of a null allomorph for the suffix *-oon* during Vocabulary Insertion. This approach provides a systematic explanation of the absence of the suffix *-oon* in negative contexts and reconciles the behaviour of *-oon* in both affirmative and negative contexts. Not all problematic cases have been addressed here. Further investigation of the auxiliary *di* when combined with the past suffix *-oon* and the negative suffix *-ul* is required.

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