Chapter 16

Object suffixes as incorporated pronouns in Seereer

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In Seereer (Atlantic, Senegal), singular pronominal objects are obligatorily marked by an object suffix on the verb. This paper provides the first comprehensive description of this object suffixation pattern, a topic that has been only cursorily described in the extant literature on Seereer (cf. Renaudier 2012). In addition, I provide a preliminary theoretical account of the Seereer object suffix system. I argue that Seereer object suffixes are best analyzed as incorporated pronouns. Evidence for such an analysis comes from the following: (i) an object suffix may never occur with an in situ object DP; (ii) an object suffix may not double an extracted object in relative clauses, wh-questions, or focus constructions; (iii) there is only one object suffix allowed per clause; and (iv) an object suffix may reference either object in a double object construction. I argue that object suffixes raise to Spec-*v*P and are subsequently incorporated in the verb via m-merger (Matushansky 2006, Kramer 2014, Harizanov 2014). This analysis elegantly derives the behaviors listed above. Such an approach also allows us to integrate the Seereer object suffixation data into the broader understanding of cliticization patterns crosslinguistically, thereby enriching our understanding of object marking systems in verbs.

1 Introduction

In Seereer (Atlantic; Senegal), singular object pronouns are marked by a suffix on the verb, as shown in (1). Plural object pronouns are realized as a full pronominal DP (2).[1]

(1) **Singular Object Suffixes**

a. Jegaan a naf-a-**xam**.
Jegaan 3 hit-DV-1SG.OBJ
'Jegaan hit me.'

b. Jegaan a naf-a-**ang**.
Jegaan 3 hit-DV-2SG.OBJ
'Jegaan hit you.'

c. Jegaan a naf-a-**an**.
Jegaan 3 hit-DV-3SG.OBJ
'Jegaan hit him/her/it.'

[1]Plural object pronouns are preceded by the differential object marker *a*. This marker is required with objects that are pronouns or proper names. I will not discuss the differential object marker here.

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(2) **Plural Object Pronouns**

a. Jegaan a naf-a a **in**.
Jegaan 3 hit-DV OBJ 1PL
'Jegaan hit us.'

b. Jegaan a naf-a a **nuun**.
Jegaan 3 hit-DV OBJ 2PL
'Jegaan hit you guys.'

c. Jegaan a naf-a a **den**.
Jegaan 3 hit-DV OBJ 3PL
'Jegaan hit them.'

There are only singular object suffixes; no equivalent plural object suffixes exist in the language. Alongside the suffixes, Seereer has a full set of free pronouns for all person/number combinations. The object suffixes and the free pronouns are shown below in Table 1:

Table 1: Object Suffixes vs. Free Pronouns

	1SG	2SG	3SG	1PL	2PL	3PL
Object Suffix	*-aam*	*-ong*	*-in*			
Free Pronoun	*mi*	*wo'*	*ten(o)*	*in*	*nun*	*den(o)*

In Table 1, the object suffixes are given in their underlying forms. In most cases, these underlying forms are obscured by morphonological processes. For reasons of space I will not discuss these processes here.[2]

Although there is a small amount of published work on Seereer (Faye 1982; McLaughlin 1994; 2000; Renaudier 2012), there is no comprehensive description of the object suffix system. This paper aims to fill this gap. I show that object suffixes are best analyzed as pronouns that are morphologically incorporated into the verb, rather than object agreement. I also sketch a preliminary analysis of the pronoun incorporation process. Building on analyses of pronominal clitics by Harizanov (2014) and Kramer (2014), I propose that object suffixes originate in an argument position as pronouns and undergo head movement to v^0.

The structure of this paper is as follows. In §2, I show that the distribution of object suffixes is identical to the distributio of free object pronouns, and argue that this shows object suffixes to be incorporated pronouns. I then discuss constraints on object suffixation in §3. Based on these facts, I present my analysis in §4. Section §5 provides conclusions.

[2]Though see Renaudier (2012) for discussion of the morphonology of object suffixes in a different Seereer dialect, Seereer-Marlodj.

2 Object suffixes are pronouns

In this section, I show that object suffixes have the same distribution as other object pronouns and are therefore best analyzed as incorporated pronouns. Evidence for this comes from the fact that object suffixes cannot double an *in situ* object DP; that they cannot co-occur with an Ā-moved object; and that they must resume a left-dislocated object.

2.1 Doubling of full NPs

In situ full DP objects can never co-occur with a coreferential object suffix on the verb, as shown by the pair of examples in (3a-b):

(3) a. Mataar a jaw-a [$_{DP}$ **maalo fe**]
Mataar 3 cook-DV rice DET
'Mataar cooked the rice.'

b. * Mataar a jaw-a-**an$_i$** [$_{DP}$ **maalo fe**]$_i$
Mataar 3 cook-DV-3SG.OBJ rice DET
Intended: 'Mataar cooked the rice.'

In (3a), there is a single full, post-verbal full DP object, *maalo fe* 'the rice'. When a object suffix coreferential with *maalo fe* is added to the verb in (3b), the sentence becomes ungrammatical. Seereer is completely invariant with respect to this constraint. As shown in (4), an object suffix can never double any kind of full DP object:

(4) a. * Jegaan a bug-a-**an$_i$** [$_{DP}$ **ya' um oxe**]$_i$. Kinship term
Jegaan 3 love-DV-3SG.OBJ mother 3POSS DET
Intended: 'Mataar loves his mother.'

b. * Jegaan a ga'-a-**xam$_i$** [$_{DP}$ **a mi**]$_i$. Free pronoun
Jegaan 3 see-DV-1SG.OBJ OBJ 1SG
Intended: 'Jegaan saw me.'

c. * Jegaan a ga'-a-**an$_i$** [$_{DP}$ **okoor oxe**]$_i$. Human animate
Jegaan 3 see-DV-3SG.OBJ man DET
Intended: 'Jegaan saw the man.'

d. * Jegaan a ga'-a-**an$_i$** [$_{DP}$ **muus ne**]$_i$. Non-human animate
Jegaan 3 see-DV-3SG.OBJ cat DET
Intended: 'Jegaan saw the cat.'

e. * Jegaan a jik-a-**an$_i$** [$_{DP}$ **mbin ne**]$_i$ Inanimate
Jegaan 3 buy-DV-3SG.OBJ house DET
Intended: 'Jegaan bought the house.'

So, the basic observation is that full, post-verbal DP objects are in complementary distribution with object suffixes. This observation is immediately explained if we assume that object suffixes and full DP objects occupy the same structural position at some point in the derivation. Thus, object suffixes and full DP objects compete for an argument position, as there can only be one argument per structural position. This, in turn, straightforwardly follows if we assume that object suffixes are pronouns that have been incorporated morphologically into the verb.

2.2 Object extraction contexts

Object suffixes are also in complementary distribution with an Ā-extracted object. This is true for all constructions that involve Ā-extraction in Seereer: *wh*-questions, focus clauses, and relative clauses.[3] First, an object suffix cannot co-occur with an extracted object *wh*-phrase, as shown in (5a-b):

(5) a. * **xar$_i$** Ami a jik-u-[**n$_i$**]?
what Ami 3 buy-EXT-3SG.OBJ
Intended: 'What did Ami buy?' Inanimate *wh*-word

b. * **an$_i$** Ami a bug-u-[**n$_i$**]?
who Ami 3 love-EXT-3SG.OBJ
Intended: 'Who does Ami love?' Animate *wh*-word

This constraint is also active in object focus clauses, as shown in (6a-b):

(6) a. * **Jegaan$_{i\text{FOC}}$** Ami a bug-u-[**n$_i$**].
Jegaan Ami 3 love-EXT-3SG.OBJ
Intended: 'It's Jegaan that Ami loves.' DP focus

b. * (a) **wo'$_{i\text{FOC}}$** Ami a bug-[**ong$_i$**].
OBJ 2SG Ami 3 love-2SG.OBJ.EXT
Intended: 'It's you that Ami loves.' Pronoun focus

Finally, in object relative clauses, an object suffix may not double the extracted DP, as seen in (7):

(7) * [$_N$ **maalo**]$_i$ [$_{CP}$ **ne** Ami a ñam-uu-[**n$_i$**]-a]
rice REL.DET Ami 3 eat-EXT-3SG.OBJ-REL
Intended: 'the rice that Ami ate'

The data in (5)-(7) also follow from the idea that object suffixes are underlyingly pronouns that saturate argument positions. An Ā-extracted argument must be generated in an

[3] Evidence that these clauses involve Ā-extraction of the object comes from the fact that the verb takes the final suffix *-u*, which only occurs when Ā-movement has occurred in a clause within which the verb is contained. See Baier (2014) for extensive discussion.

argument position before it undergoes Ā-movement, and this blocks an object suffix from being generated in the same argument position. Note that plural object pronouns, which do not have a suffixal form, are also blocked from co-occuring with an extracted plural DP object:

(8) a. * **aniin**$_{\text{i}}$ Ami a bug-u a **den**$_{\text{i}}$?
who.PL Ami 3 love-EXT OBJ 3PL
Intended: 'Who all does Ami love?' Plural *wh*-word

b. * (a) **nuun**$_{\text{iFOC}}$ Ami a ga'-u a **nuun**$_{\text{i}}$.
OBJ 2PL Ami 3 see-EXT OBJ 2PL
Intended: 'It's you all that Ami saw.' Plural DP focus

So object suffixes have the exact same distribution as free, plural object pronouns in cases of object Ā-extraction. This is further evidence that object suffixes are pronouns that are incorporated into the verb.

2.3 Left dislocation contexts

Object suffixes must double a left-dislocated full DP object. As shown in (9), when the dislocated DP is singular, an object suffix is required on the verb:

(9) a. **maalo fe**, Mataar a jaw-a-**an**.
rice DET Mataar 3 cook-DV-3SG.OBJ
'The rice, Mataar cooked it.' Suffix

b. * **maalo fe**, Mataar a jaw-a-**Ø**.
rice DET Mataar 3 cook-DV
Intended: 'The rice, Mataar cooked it.' No Suffix

Free singular object pronouns may also be dislocated. Resumption by an object suffix is also required in this case:

(10) a. **(a)** mi, Mataar a bug-a-*(**xam**).
OBJ 1SG Mataar 3 cook-DV-1SG.OBJ
Intended: 'Me, Mataar likes.'

b. **(a)** wo', Mataar a bug-a-*(**ang**).
OBJ 2SG Mataar 3 cook-DV-1SG.OBJ
Intended: 'You, Mataar likes.'

Again, the behavior of object suffixes is the same as that of free plural object pronouns. When a plural object DP is left dislocated, a plural pronoun is required as a resumptive, (11a); lack of one results in ungrammaticality (11b):

(11) a. **goor we**, Mataar a ga'-a a **den**.
men DET Mataar 3 see-DV OBJ 3PL
'The men, Mataar saw them.' Pronoun

b. * **goor we**, Mataar a ga'-a **Ø**.
men DET Mataar 3 see-DV
Intended: 'The men, Mataar saw them.' No Pronoun

Left dislocation in Seereer does not involve Ā-movement. Evidence for this comes from the fact that left dislocation does not trigger the presence of the Ā-sensitive final suffix *-u*.[4] Instead, left dislocation involves base generation of a DP in the left periphery and resumption in an argument position in the main part of the clause. Since resumptive elements are usually pronouns (McCloskey 2006), this supports the idea that object suffixes are themselves pronouns. Again, this idea is reinforced by the fact that they pattern identically to free plural pronouns in this construction.

3 Syntactic constraints on object suffixation

In the previous section, I presented distributional evidence that object suffixes are in fact pronouns that end up as a morphological subunit of the verb word. Following this line of thought, I assume that, as pronouns, object suffixes are generated as D heads in object position as the complement to V. This is shown in (12), where 'OS' stands for object suffix:

(12) $[_{VP}$ V $[_{D}$ OS $]]$

Thus, object suffixes are simply generated in argument position like any other object and later become associated morphologically with the verb. But why do object suffixes incorporate into the verb? In this section, I present evidence that object suffixation is constrained by the syntactic structure of the clause and therefore object suffixation is a fundamentally syntactic process. The specific data are derived from the following contexts:

(13) a. The obligatoriness of object suffixes
b. Multiple object constructions: Ditransitives, applicatives, causatives
c. Object suffixes in passive clauses

3.1 Obligatoriness

If there is only one singular object pronoun, it must *always* surface as a suffix, never as a free pronoun, as shown by (14).

(14) a. Jegaan a fal-a-**ang**.
Jegaan 3 kick-DV-2SG.OBJ
'Jegaan kicked you.' Object suffix

[4]For further discussion, see Baier (2014).

b. * Jegaan a fal-a (a) **wo'**.
Jegaan 3 kick-DV OBJ 2SG
Intended: 'Jegaan kicked you.' Free pronoun

Regardless of the presence of other post-verbal constituents, a singular object pronoun must be realized as a suffix. Consider (15), which shows that a free singular object pronoun is impossible in such contexts:

(15) a. Jegaan a fal-a-**ang** faak.
Jegaan 3 kick-DV-2SG.OBJ yesterday
'Jegaan kicked you yesterday.'

b. * Jegaan a fal-a faak (**a**) **wo'**.
Jegaan 3 kick-DV yesterday OBJ 2SG
Intended: 'Jegaan kicked you yesterday.'

c. * Jegaan a fal-a (**a**) **wo'** faak.
Jegaan 3 kick-DV OBJ 2SG yesterday
Intended: 'Jegaan kicked you yesterday.'

Note that, otherwise, objects are generally freely ordered with regards to other post-verbal constituents. As shown in (16), plural object pronouns and full DP objects may precede or follow an adverb such as *faak* 'yesterday':

(16) a. Jegaan a ga'-a (a **nuun**) faak (a **nuun**).
Jegaan 3 kick-DV OBJ 2PL yesterday OBJ 2PL
'Jegaan saw you guys yesterday.' Plural pronoun

b. Jegaan a ga'-a (**otew oxe**) faak (**otew oxe**).
Jegaan 3 kick-DV woman DET yesterday woman DET
'Jegaan saw the woman yesterday.' Full DP

These data are important in that they show that object suffixation is insensitive to linear order. If object were sensitive to linear order, we would expect a clause like (14b), in which an adverbial intervenes between a singular object pronoun and the verb, to be grammatical (as the plural counterpart in (16a) is). However, this order is not possible. Since syntactic operations not sensitive to linear order, this points to a syntactic account of object suffixation.

3.2 Multiple object constructions

Seereer has several types of double object constructions (DOC). Such constructions occur with lexical ditransitive verbs, such as *ci'* 'give'; verbs bearing one of the applicative suffixes *-an* 'benefactive' and *-(i)t* 'instrumental/locative'; and causative verbs derived with the causative suffix *-noor*. Lexical ditransitive verbs and applicative verbs pattern

together with regard to word order and object suffixation, while causative verbs pattern differently than the first two classes with regard to these diagnostics.

Ditransitive verbs and applicative verbs in Seereer are SYMMETRICAL double object constructions (following the terminology of Bresnan & Moshi 1990). When ditransitive and applicative verbs have two full DP arguments and both are post-verbal, these arguments are freely ordered. This is shown for ditransitives in (17) and for the benefacative applicative *-an* in (18). In the following examples, '↔' indicates that the bracketed constituents can be reversed in order:

(17) a. Jegaan a ci'-a [$_{DP}$ okoor oxe]$_{GOAL}$ ↔ [$_{DP}$ atere le]$_{THEME}$.
Jegaan 3 give-DV man DET book DET
'Jegaan gave the man the book.' ✓ GOAL < THEME / ✓ THEME < GOAL

(18) a. a jaw-an-a [$_{DP}$ okoor oxe]$_{BEN}$ ↔ [$_{DP}$ maalo fe]$_{THEME}$.
3 cook-BEN-DV man DET rice DET
'He cooked the rice for the man.' ✓ BEN < THEME / ✓ THEME < BEN

When one of the objects of a ditransitive or applicative verb is a singular pronoun, it *must* be realized as a suffix, as shown for a ditransitive verb in (19).[5] This constraint holds regardless of order, as shown by (19b-c):

(19) a. Jegaan a ci'-a-**ang**$_{GOAL}$ [$_{DP}$ atere le]$_{THEME}$.
Jegaan 3 give-DV-2SG.OBJ book DET
'Jegaan gave you the book.' Object suffix

b. * Jegaan a ci'-a [$_{DP}$ a wo']$_{GOAL}$ [$_{DP}$ atere le]$_{THEME}$.
Jegaan 3 give-DV OBJ 2SG book DET
Intended: 'Jegaan gave the book to you.' Free pronoun

c. * Jegaan a ci'-a [$_{DP}$ atere le]$_{THEME}$ [$_{DP}$ a wo']$_{GOAL}$.
Jegaan 3 give-DV book DET OBJ 2SG
Intended: 'Jegaan gave the book to you.' Free pronoun

When a ditransitive or applicative verb takes two singular object pronouns, either argument may surface as a suffix, as shown in (20a-b).[6] However, there is a *maximum of one* object suffix per verb form; the verb cannot take multiple object suffixes, as shown by (20c):

(20) a. Jegaan a ci'-a-**ang**$_{GOAL}$ [$_{DP}$ a ten]$_{THEME}$.
Jegaan 3 give-DV-2SG.OBJ OBJ 3SG
'Jegaan gave you it.' Goal suffix

[5] For reasons of space, I will use data only from lexical ditransitives for the remainder of this section. The judgements also apply to all applicatives.

[6] In cases where one object is a speech act participant and the other is not, my consultant showed a preference for suffixation of the SAP object. However, this is not a hard and fast constraint. Examples like (20a) are perfectly grammatical.

b. Jegaan a ci'-a-**an**$_{\text{THEME}}$ [$_{\text{DP}}$ a wo']$_{\text{GOAL}}$.
Jegaan 3 give-DV-3SG.OBJ OBJ 2SG
'Jegaan gave it to you.' Theme suffix

c. * Jegaan a ci'-a-**ang**$_{\text{GOAL}}$-**in**$_{\text{THEME}}$.
Jegaan 3 give-DV-2SG.OBJ-3SG.OBJ
Intended: 'Jegaan gave you it.' Two suffixes

So these particular multiple object constructions are symmetrical with regard to object suffixation, in that either object may be realized as an object suffix when they are both singular pronouns.

On the other hand, causatives of transitive verbs derived with the suffix *-noor* are **asymmetrical** double object constructions. Such verbs take two objects: the subject of the caused event (the CAUSEE) and the underlying object of the caused event. With regard to word order, a full DP causee must *always* precede a full DP object, as shown in (21):

(21) a. Jegaan a fal-**noor**-a [$_{\text{DP}}$ okoor oxe]$_{\text{CAUSEE}}$ [$_{\text{DP}}$ naak le]$_{\text{OBJECT}}$.
Jegaan 3 kick-CAUS-DV man DET cow DET
'Jegaan made the man kick the cow.' ✓CAUSEE < OBJECT

b. * Jegaan a fal-**noor**-a [$_{\text{DP}}$ naak le]$_{\text{OBJECT}}$ [$_{\text{DP}}$ okoor oxe]$_{\text{CAUSEE}}$.
Jegaan 3 kick-CAUS-DV cow DET man DET
Intended: 'Jegaan made the man kick the cow.' *OBJECT < CAUSEE

This is the opposite of what we saw for ditransitive and applicative verbs, where either ordering was licit. Also unlike ditransitive and applicative verbs, there is an asymmetry for causative verbs with regards to which argument is able to appear as an object suffix. The causee *must* be an object suffix if it is a singular pronoun, as shown by (22):

(22) a. Jegaan a fal-**noor**-a-**ang**$_{\text{CAUSEE}}$ [$_{\text{DP}}$ naak le]$_{\text{OBJECT}}$.
Jegaan 3 kick-CAUS-DV-2SG.OBJ cow DET
'Jegaan made you kick the cow.' Object suffix

b. * Jegaan a fal-**noor**-a [$_{\text{DP}}$ a wo']$_{\text{CAUSEE}}$ [$_{\text{DP}}$ naak le]$_{\text{OBJECT}}$.
Jegaan 3 kick-CAUS-DV OBJ 2SG cow DET
'Jegaan made you kick the the cow.' Free pronoun

However, the object of the causative verb *cannot* be realized as an object suffix, even if it is the only singular object pronoun in the clause, as shown by (23a):

(23) a. Jegaan a fal-**noor**-a [$_{\text{DP}}$ okoor oxe]$_{\text{CAUSEE}}$ [$_{\text{DP}}$ a wo']$_{\text{OBJECT}}$.
Jegaan 3 kick-CAUS-DV man DET OBJ 2SG
'Jegaan made the man kick the cow.' Free pronoun

b. * Jegaan a fal-**noor**-a-**ang**$_{\text{OBJECT}}$ [$_{\text{DP}}$ okoor oxe]$_{\text{CAUSEE}}$.
Jegaan 3 kick-CAUS-DV-2SG.OBJ man DET
'Jegaan made the man kick you.' Object suffix

Again, this is exactly the opposite of what we saw with ditransitives and applicatives. Like those verbs, however, it is also impossible for a causative verb to take two object suffixes, as shown by (24):

(24) * Jegaan a fal-**noor**-a-**ang**$_{\text{CAUSEE}}$-**in**$_{\text{OBJECT}}$.
Jegaan 3 kick-CAUS-DV-2SG.OBJ-3SG.OBJ
Intended: 'Jegaan made you kick it.' Two suffixes

All of the facts just discussed are summarized in Table 2:

Table 2: Sereer double object constructions

Type	Word Order	Object Suffix	Multiple Suffixes
Ditransitive	SYM	SYM	✗
Applicative	SYM	SYM	✗
Causative	ASYM	ASYM	✗

The differences between symmetrical (ditransitive/applicative) and asymmetrical (causative) double object constructions are a convincing argument in favor of a syntactic account of object suffixation. As we will see below, these differences can be relativized to independent principles of locality in which causatives include a barrier to object suffixation of the internal argument of the causativized predicate, whereas ditransitives and applicatives do not.[7] A non-syntactic account would have to stipulate these differences.

In addition, the general ban on multiple suffixes is an argument against approaches to object suffixation that do not take place in the syntax, as such accounts would have to posit a different set of weak pronouns that occur as suffixes, and a stipulation would be required to block these suffixes from co-occuring. A syntactic approach, on the other hand, can take advantage of the idea that the operation triggering incorporation of a pronoun into the verb only applies once per structure.

3.3 Passives

The final constraint on object suffixation concerns passives. When a ditransitive verb is passivized, one of the underlying objects is promoted to subject, while the other object is left behind in the post-verbal position and treated as an object. Either object may be promoted to subject, as shown in (25):

(25) a. [$_{\text{DP}}$ okoor oxe]$_{\text{GOAL}}$ a ci'-**e** [$_{\text{DP}}$ atere le]$_{\text{THEME}}$
man DET 3 give-PASS book DET
'The man was given the book.' Goal subject

[7] See Baker et al. (2012) for such an approach to similar data in Lubukusu.

b. [$_{DP}$ atere le]$_{THEME}$ a ci'-**e** [$_{DP}$ okoor oxe]$_{GOAL}$
book DET 3 give-PASS man DET
'The book was given to the man.' Theme subject

In (25a), the goal argument is promoted to subject and the theme remains post-verbal as an object. In (25b), the theme is promoted to subject and the goal argument remains behind. When the object that remains post-verbal is a singular pronoun, it *cannot* be realized as a suffix. This is true regardless of which argument it refers to, as shown by (26):

(26) a. * [$_{DP}$ okoor oxe]$_{GOAL}$ a ci'-**e**-**n**
man DET 3 give-PASS-3SG.OBJ
Intended: 'The man was given it.' Goal suffix

b. * [$_{DP}$ atere le]$_{THEME}$ a ci'-**e**-**n**
book DET 3 give-PASS-3SG.OBJ
Intended: 'The book was given to him/her.' Theme suffix

In (26a), the object suffix on the verb corresponds to the theme argument. In (26b), the object suffix on the verb refers to the goal argument. Both examples are ungrammatical. This ungrammaticality is avoided by realizing the pronominal object as a full, free pronoun.

(27) a. [$_{DP}$ okoor oxe]$_{GOAL}$ a ci'-**e** [$_{DP}$ a ten]$_{THEME}$
man DET 3 give-PASS OBJ 3SG
'The man was given it.'

b. [$_{DP}$ atere le]$_{THEME}$ a ci'-**e** [$_{DP}$ a ten]$_{GOAL}$
book DET 3 give-PASS OBJ 3SG
'The book was given to him/her.'

As seen in (27), a post-verbal object in a ditransitive passive is grammatical, while a object suffix is not. This observation is another argument for a syntactic approach to object suffixation, as we expect different voice types to enforce different syntactic constraints. An account that locates object suffixation in a post-syntactic module of the grammar would have to appeal to a stipulation by stating that singular pronouns cannot be realized as suffixes in a structure with a passive. Alternatively, one could say that there is a templatic restriction banning incorporation into a passive verb. A syntactic analysis, on the other hand, can appeal to differences in the structure of active and passive sentences to account for the availability of object suffixation. For instance, perhaps object suffixation is triggered by a head present in the active that is not present in the passive. I now move on to sketching such an approach in section 4.

4 Towards an analysis

Before moving on to my analysis, I present a summary of the generalizations made above concerning object suffixation in (28):

(28) **Characteristics of Object Suffix**

a. There are only singular object suffixes
b. An object suffix may not co-occur with an *in situ* DP.
c. An object suffix may not co-occur with an Ā-extracted object (focus/*wh*-relative)
d. An object must co-occur with a topicalized object.
e. There is a limit of one object suffix per verb.
f. An object suffix is obligatory where possible.
g. An object suffix may refer to either argument in a symmetrical DOC.
h. An object suffix cannot refer to the theme of a causativized transitive verb.
i. An object suffix cannot occur in a passive verb.

In this section, I sketch an analysis that aims to capture the generalizations given above.

The core idea of my analysis is that object suffixation involves head movement of a pronoun (D^0) to the head v^0, which causes it to be morphologically incorporated into the verb. This idea is schematized in (29):

(29) $[_{vP}$ V+v+OS $[_{VP}$ ~~V~~ $[_{D}$ ~~OS~~]]]

There are two questions that must be answered with regards to the structure in (29). First, what triggers movement of a pronominal D^0 to v^0 and why does it only target singular pronouns? Second, why is the head movement impossible in some circumstances, such as when there are multiple objects or when the verb is passive?

Building on analyses of Bulgarian pronominal clitics by Harizanov (2014) and Amharic object suffixes by Kramer (2014), I suggest that incorporation of a pronoun into v^0 is motivated by the operation Agree which is triggered by a probe on v^0. Both Harizanov and Kramer and adopt the conception of head movement developed by Matushansky (2006) in which head movement is taken to be regular phrasal movement to a specifier followed by a special operation M-MERGER which fuses a specifier with its head. They argue that clitic doubling in Amharic and Bulgarian derives from movement of a DP to specifier of v, after which the DP m-merges with v^0. For Harizanov, m-merger of a XP reduces that projection to its label, yielding a complex head. This is shown in (30):

(30) a. $[_{vP}$ DP $[$ v $[_{VP}$ V ~~DP~~]]] DP moves to Spec-vP
MOVE

b. $[_{vP}$ D+v $[_{VP}$ V ~~DP~~ P]]] M-Merger of DP

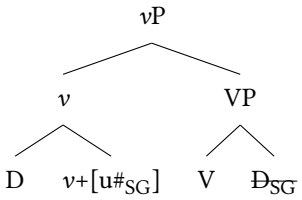
Under this analysis, object suffixation in Seereer occurs because v^0 is equipped with a probe that causes a pronoun to move to its specifier. Later, that pronoun undergoes m-merger with v^0, resulting in morphological incorporation of the pronoun into the verb.

I propose that active v^0 in Seereer is equipped with a NUMBER PROBE ([u#]) that triggers movement of an argument in VP to Spec-*v*P. I follow much work on the operation Agree in assuming that probes can be relativized to search for specific values of a feature (Béjar 2008; Béjar & Rezac 2009; Preminger 2011). In this case, I assume that the number probe on v^0 is relativized to search for singular features. I represent this as [u#$_{SG}$].

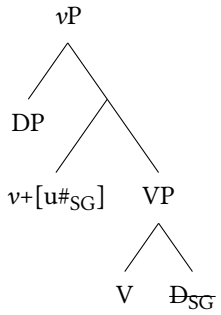
Assuming that the #-probe on v^0 is relativized to search only for singular features immediately derives the fact that only singular pronouns will incorporate into the verb in Seereer, yielding only singular object suffixes. But how do we derive the fact that no doubling of an in situ DP object is possible in Seereer? Recall that the head movement approach I am employing assumes that DPs can undergo m-merger to form a complex head with v^0. Thus, clitic doubling should, in principle, be possible.

I propose that the ability for XPs to undergo m-merger is subject to parametric variation. In languages like Bulgarian it is possible, and therefore clitic doubling occurs. In languages like Seereer, however, it is not possible, and therefore DPs can never be doubled by object suffixes, as these suffixes are impossible to generate. Thus, we have two situations in Seereer, given in (31) and (32).

(31) **Singular Pronoun = m-merger**



(32) **Singular DP = no m-merger**



In (31), the complement of V is a singular pronoun, a minimal D^0, and therefore, object suffixation occurs. In (32), on the other hand, the complement of V is a singular DP. Therefore, m-merger of DP is not possible after it moves to Spec-*v*P and no object suffix surfaces. This derives the fact that there is no doubling of full DPs by object suffixes in Seereer.

A key characteristic of object suffixation in Seereer is that it is obligatory when it is possible, but when it is impossible, no ungrammaticality results. This is problematic for

the idea that suffixation is triggered by Agree, as we would expect sentences without singular objects and active *v* to be ungrammatical. To alleviate this problem, I follow Preminger (2011) in assuming that the failure of a probe to find matching features does not result in crash. Therefore, a #-probe can be present on every active *v*, but derivations without a singular DP object will not crash. This derives the generalization that object suffixes are obligatory when there is a singular object pronoun, but when there is not one, the sentence is fine.[8]

Furthermore, because there is only one #-probe on v^0, only one object suffix is possible on any given verb. Thus, I assume that once the #-probe on v^0 has found a matching singular DP, it does not have to probe further, and is satisfied. Thus, when there are two singular object pronouns in the structure, as in a DOC, the higher object pronoun in the structure is found by the #-probe on v^0, and that pronoun incorporates. The other is left free:

(33) $[_{vP}\ [\ v\ [_{VP}\ D_i\ [\ V\ D_k\ ]]]]$ DP moves to Spec-*v*P

In (33), the #-probe on v^0 finds the higher of two object pronouns, and thus that one is the only one that is incorporated.

Finally, this analysis is able to derive two further constraints on object suffixation. First, because *v* is responsible for encoding the voice of the clause, it is reasonable to assume that the #-probe is limited to certain *v* heads. Namely, passive *v* lacks the #-probe, and therefore, no object suffix is possible in passive structures. Second, the differences between symmetrical DOCs (ditransitives/applicatives) and asymmetrical DOCs (causatives) can be derived by appealing to Phase-based locality (Chomsky 2001; 2008). In causative DOCs, there is a phase boundary between the causee object and the theme object which blocks Agree with the theme. In symmetrical DOCs, on the other hand, there is no such boundary, and therefore both objects can occur as suffixes.

5 Conclusion

In this paper, I have presented a description of Seereer object suffixes, focusing on their distribution and syntactic behavior. On the basis of their distributional characteristics, I have argued that they are best analyzed as pronouns that are morphologically incorporated into the verb. I have further argued that this process of incorporation occurs in the syntax, in that it is constrained by syntactic structure. These constraints include the fact that object suffixation is obligatory; that it cannot occur more than once per verb; that it is sensitive to the voice of the clause; and that it is sensitive to the structure of double object constructions. I have also also sketched an implementation of the syntactic approach based on the idea that active v^0 in Seereer bears a #-probe relativized to search for singular DPs, and that this probe triggers head movement of pronouns to adjoin to v^0.

[8] An alternative would be to posit that the probe is only sometimes present on v^0. However, pursuing this line of thinking would require one to devise a way to enfore the probe's presence when there is at least one singular object pronoun in the structure. I will avoid this discussion here, and leave the comparison of the two analyses to future work.

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Abbreviations

DET	determiner	REL	relative
DV	default vowel	SG	singular
EXT	extraction suffix	1	first person
INF	infinitive	2	second person
OBJ	object	3	third person
PL	plural		

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