

Object Suffixes as Incorporated Pronouns in Seereer*

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1 Introduction

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

(1) Singular Objects 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.'

(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 **nun**
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 are shown along with the free pronouns in Table 1².

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

Table 1: Object Suffixes vs. Free Pronouns

- 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. Today's talk aims to fill that gap in the literature. With regards to the object suffixes themselves, I argue the following:

- Object suffixes are best analyzed as *incorporated pronouns*.
- Pronoun incorporation occurs *in the syntax* and is *triggered by an operation that differentially triggers singular objects*.

*I thank Peter Jenks and Line Mikkelsen for insightful comments, guidance, and discussion on this project, as well as my consultant El Hadji Malick Loum for sharing his language with me. All data in this paper were gathered during the 2012-2013 UC Berkeley Field Methods class and subsequent follow up work with John Merrill in 2013-2014. Abbreviations: AGR = agreement; AUX = auxiliary; C = class; DET = determiner; DV = default vowel; EXT = extraction suffix; FUT = future; IMPF = imperfective; INF = infinitive; LER = left edge pronoun; OBJ = object; PL = plural; PST = past; REFL = reflexive; REL = relative; SBJ = subject; SG = singular; 1 = first person; 2 = second person; 3 = third person.

¹Plural object pronouns are preceded by the differential object marker *a*. This marker is required with objects that are pronouns or proper names.

²See the Appendix for a description of the morphological behavior of the object suffixes.

2 Object Suffixes are Pronouns

- In this section, I present evidence that object suffixes have the same distribution as other pronominal objects and are therefore best treated as a pronouns that have been incorporated into the verb.

2.1 Doubling of Full NPs

- *In situ* full DP objects can never occur with an object suffix on the verb:

(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.’

- 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
 Mataar 3-love-DV-3SG.OBJ mother 3POSS DET
 Intended: ‘Mataar loves his mother.’

Kinship term

b. *Jegaan a-ga’-a-**xam**_i [DP **a mi**]_i
 Jegaan 3-see-DV-1SG.OBJ OBJ 1SG
 Intended: ‘Jegaan saw me.’

Pronoun

c. *Jegaan a-ga’-a-**an**_i [DP **okoor oxe**]_i
 Jegaan 3-see-DV-3SG.OBJ man DET
 Intended: ‘Jegaan saw the man.’

Human animate

d. *Jegaan a-ga’-a-**an**_i [DP **muus ne**]_i
 Jegaan 3-see-DV-3SG.OBJ cat DET
 Intended: ‘Jegaan saw the cat.’

Non-human animate

e. *Jegaan a-jik-a-**an**_i [DP **mbin ne**]_i
 Jegaan 3-buy-DV-3SG.OBJ house DET
 Intended: ‘Jegaan bought the house.’

Inanimate

- By the criteria of complementary distribution, the fact that an object suffix can never double an *in situ* DP object points to the DP and the object suffix being the same kind of syntactic element, namely an argument of the verb.

Hypothesis: Object suffixes are incorporated pronouns.

2.2 Left dislocation contexts

- Further evidence for the pronoun incorporation analysis comes from contexts where a full DP object is left dislocated. If the dislocated DP is singular, an object suffix is required on the verb:

(5) 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- \emptyset
 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.

- (6) 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.’

- When a plural DP object is left dislocated, a full free plural object pronoun is required; lack of one results in ungrammaticality:

- (7) 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 \emptyset
 men DET Mataar 3-see-DV
 Intended: ‘The men, Mataar saw them.’ No Pronoun

- The distribution of singular object suffixes in (5) and (6) is identical to the distribution of the plural object pronoun in (7). This supports the idea that **object suffixes are pronouns**. The difference in surface realization of the resumption is due to the fact that singular pronouns incorporate, while plural pronouns do not.

2.3 Object extraction contexts

- Object suffixes are in complementary distribution with an extracted full DP object. This is true for all constructions that involve extraction in Seereer: *wh*-questions, focus clauses, and relative clauses.
- An object suffix may not occur with an extracted object *wh*-phrase:

- (8) 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 (9):

- (9) a. * **Jegaan_{iFOC}}** 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’_{iFOC}}** 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:

(10) * [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’

- Each of these constructions involves \bar{A} -movement of the extracted object from its base position inside DP³. The idea that object suffixes occupy the same position as full DP objects in the syntax explains why they cannot double an \bar{A} -moved object and therefore supports the incorporation analysis

2.4 Summary

- The data discussed above are summarized in Table 2:

Environment	Object Suffix?
DP object	✗
Dislocation	✓
Extraction	✗

Table 2: Basic Distribution of OS

- From these data, I conclude the following:

Seereer object suffixes are pronouns that have been incorporated into the verb.

3 What Drives Incorporation?

- Questions:** Why does pronoun incorporation only occur with *singular object pronouns*? At which level of structure does incorporation take place?
- As pronouns, I assume object suffixes are items of the category D that originate in an argument position, namely the complement of V, as shown in (11):

(11) [VP V [D OS]]

- Hypothesis 1:* Pronoun incorporation is a **morphophonological** process. The object suffixes are weak pronouns that are prosodically deficient. Therefore they must be incorporated into the verb to be licensed.

- Here I take ‘prosodic deficiency’ to mean that object suffixes do not project a phonological word (Selkirk 1995). They become phonologically dependent on the verb, causing the suffix to incorporate into the prosodic constituent projected by the verb:

(12) [VP V [D OS]] → [[_ω V] -OS]

- A similar analysis has been argued to right for object markers in the Kordofanian language Moro (Jenks and Rose to appear).
- **Prediction A:** The verb should be able to bear multiple object suffixes when there are multiple singular objects.

³See (Baier 2013) for relevant diagnostics and discussion.

- **Prediction B:** If free singular pronouns are *ever* able to serve as objects, they should be in free variation with object suffixes in at least some contexts.
- *Hypothesis 2:* Pronoun incorporation is a **syntactic** process, but the operation which leads to incorporation differentially targets singular pronouns (or perhaps singular DPs).
 - One possibility is that pronoun incorporation is (syntactic) cliticization. Following Kramer (to appear) and Harizanov (to appear), I take this to mean that the object suffix moves from its base position to adjoin to a functional head, perhaps v^0 :

(13) [_{VP} V+v+OS [_{VP} \forall [_D OS]]]
 - **Prediction:** Object suffixation should be sensitive to the syntactic structure of the clause. Specifically, it should be sensitive to the content of the head that triggers incorporation.
- To test these two hypothesis, I examine data from the following sources:
 - The obligatoriness of object suffixation (3.1).
 - Multiple object constructions: Ditransitives, applicatives, causatives. (3.2).
 - Object suffixes in passive clauses (3.3).
- I argue that the data from the above contexts show that **Hypothesis 2** is correct- pronoun incorporation is syntactic.

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 in (14):

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

b. *Jegaan a-fal-a (a) wo’
 Jegaan 3-kick-DV OBJ 2SG
 Intended: ‘Jegaan kicked you.’ Free pronoun
- Objects are generally freely ordered with regards to other post-verbal constituents in Seereer. As shown in (15), plural object pronouns and full DP objects may precede or follow an adverb such as *faak* ‘yesterday’:

(15) a. Jegaan a-ga’-a (a **nun**) faak (a **nun**)
 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
- Regardless of the presence of another post-verbal constituent, a singular object pronoun must be realized as a suffix. Consider (16), which shows that a free singular object pronoun is impossible in such contexts.

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

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

- The ordering of the post-verbal constituents does not matter; a suffix is always required in these cases, as shown by (16c).
- If pronoun incorporation were a morphophonological process deriving from the deficiency of singular pronouns, we might expect the pronoun to incorporate into the constituent immediately to its left in (16a). But this is impossible:

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

- A syntactic account to these data can appeal to there being an operation that is insensitive to linear order or presence of other post-verbal constituents.

3.2 Multiple object constructions

- Seereer has several types of verbs that take multiple objects. They are:
 - **Lexical ditransitives:** Non-derived verbs that take two objects such as *asci* 'give'.
 - **Applicatives:** Verbs derived with the applicative suffixes *-an* 'benefactive' and *-(it)* 'instrumental/locative'.
 - **Causatives:** Verbs derived with the causative suffix *-noor*.
- Lexical ditransitives and applicative verbs pattern together with regards to word order and object suffixation. Causatives pattern differently. I examine each in turn.

3.2.1 Ditransitives and applicatives

- Ditransitive and applicatives are **symmetrical** double object constructions (following the terminology of Bresnan and Moshi 1990).
- When ditransitive and applicative verbs have two full DP arguments, they are freely ordered. This is shown for ditransitives in (18) and for the benefactive applicative *-an* in (19):

- (18) 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
- b. Jegaan a-ci'-a [DP atere le]_{THEME} [DP okoor oxe]_{GOAL}
 Jegaan 3-give-DV book DET man DET
 'Jegaan gave the book to the man.' THEME > GOAL
- (19) a. Jegaan a-jaw-an-a [DP otew oxe]_{BEN} [DP maalo fe]_{THEME}
 Jegaan 3-cook-BEN-DV woman DET rice DET
 'Jegaan cooked the rice for the woman.' BEN > THEME
- b. Jegaan a-jaw-an-a [DP maalo fe]_{THEME} [DP otew oxe]_{BEN}
 Jegaan 3-cook-BEN-DV rice DET woman DET
 'Jegaan cooked the rice for the woman.' 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 (20)⁴.

- (20) 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 (21a-b). However, there is a *maximum of one* object suffix per; the verb cannot take multiple object suffixes, as shown by (21c):

- (21) 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
- b. Jegaan a-ci'-a-**an**_{THEME} [DP a wo']_{GOAL}
 Jegaan 3-give-DV-3SG.OBJ OBJ 2SG
 'Jegaan gave it to you.' Theme suffix
- c. *Jegaan a-ci'-a-**ang**_{GOAL}-**in**_{THEME}
 Jegaan 3-give-DV-2SG.OBJ-3SG.OBJ
 Intended: 'Jegaan gave you it' Two suffixes

3.2.2 Causatives

- Causatives of transitive verbs derived with *-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. A full DP causee must *always* precede a full DP object:

- (22) a. Jegaan a-fal-**noor**-a [DP okoor oxe]_{CAUSEE} [DP naak le]_{OBJECT}
 Jegaan 3-kick-CAUSE-DV man DET COW DET
 'Jegaan made the man kick the cow.' CAUSEE > OBJECT
- b. *Jegaan a-fal-**noor**-a [DP naak le]_{OBJECT} [DP okoor oxe]_{CAUSEE}
 Jegaan 3-kick-CAUSE-DV COW DET man DET
 Intended: 'Jegaan made the man kick the cow.' *OBJECT > CAUSEE

- Unlike ditransitive/applicative verbs, there is also an asymmetry in 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 (23).

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

⁴For the rest of this section, I show only data from lexical ditransitives. The judgements also apply to all applicatives.

- b. *Jegaan a-fal-**noor**-a [DP a wo']_{CAUSEE} [DP naak le]_{OBJECT}
 Jegaan 3-kick-CAUSE-DV OBJ 2SG COW DET
 'Jegaan made you kick the the cow'

Free pronoun

- 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:

- (24) a. Jegaan a-fal-**noor**-a [DP okoor oxe]_{CAUSEE} [DP a wo']_{OBJECT}
 Jegaan 3-kick-CAUSE-DV man DET OBJ 2SG
 'Jegaan made the man kick the cow.'

Free pronoun

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

Object suffix

- Finally, like ditransitives and applicatives, it is impossible for a causative verb to take two object suffixes:

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

Two suffixes

- The characteristics of double object constructions are summarized in Table 3:

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

Table 3: Sereer Double Object Constructions

- The inability of a verb to take multiple object suffixes is a strong argument against a morphophonological approach, since we would expect all weak singular pronouns to incorporate.
 - For ditransitives, we would have to stipulate that only one object pronoun could be merged as a weak pronoun.
 - For causatives, on the other hand, we would have to stipulate that only the causee could be merged as a weak pronoun.
- To explain the ban on multiple suffixes, a syntactic account could posit that the operation of incorporation can apply only once per verb. Differences between symmetrical and asymmetrical DOCs could then be relativized to independent principles, such as locality (see Baker et al. 2012 for such an approach to similar data in Lubukusu).

3.3 Passives

- In the passive of ditransitives, one of the underlying objects is promoted to subject. The other is left post-verbal and treated like an object.

- (26) a. [DP okoor oxe]_{GOAL} a-ci'-e [DP atere le]_{THEME}
 man DET 3-give-PASS book DET
 'The man was given the book.'

Goal subject

- 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

- When the object that is left behind in a passive ditransitive is a singular pronoun, it *cannot* be realized as a suffix. This is true regardless of which argument it refers to:

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

Goal suffix

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

Theme suffix

- Instead, the remaining object *must* be realized as a full, free singular pronoun:

(28) 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.'

- A morphophonological account would have to appeal to a stipulation by stating that weak pronouns cannot be merged in a structure with a passive. Alternatively, one could say that there is a templatic restriction banning incorporation into a passive verb.
- A syntactic approach, on the other hand, could posit that the structure responsible for triggering pronoun incorporation in active verbs is simply lacking in the passive.

3.4 Summary

- A summary of all the data discussed so far in this talk is given in (29):

(29) **Characteristics of Object Suffix**

- There are only singular object suffixes
- An object suffix may not cooccur with an *in situ* DP.
- An object must double with a topicalized object.
- An object suffix may not double an \bar{A} -extracted object (focus/*wh*relative)
- An object suffix is obligatory where possible.
- An object suffix may refer to either argument in a symmetrical DOC.
- An object suffix cannot refer to the theme of a causativized verb.
- An object suffix cannot occur in a passive verb.
- There is a limit of one object suffix per verb.

4 Discussion

- A major generalization that emerges from the data discussed in Section 3 is the following:

Generalization: Object suffixation is obligatory when it is possible.

- Object suffixation is *impossible* in the following contexts:

- When there is a full DP object in a monotransitive.
- When there is already one object suffix on the verb.
- When the verb is passive.
- When the object in question is the underlying object of a causative construction.

- Recall our two hypotheses from the beginning of Section 3, repeated here. I compare the two below.
 - *Hypothesis 1*: The object suffixes are weak pronouns that prosodically deficient and they must be incorporated into the verb to be licensed.

$$(30) \quad [{}_{VP} V [{}_{D} OS]] \rightarrow [[{}_{\omega} V] -OS]$$

- *Hypothesis 2*: Pronoun incorporation is a **syntactic** process, but the operation(s) which lead to incorporation differentially targets singular pronouns.

$$(31) \quad [{}_{VP} V+V+OS [{}_{VP} \cancel{V} [{}_{D} \cancel{OS}]]]$$

4.1 Hypothesis 1

- The first hypothesis holds that pronoun incorporation is a morphophonological process driven by the prosodic deficiency of singular pronouns when they are in object position.
- There are multiple problems with such an account. First, one must stipulate that there are two types of singular pronoun in Seereer:
 - A ‘strong’, free series of pronouns.
 - A set of ‘weak’ singular pronouns that incorporate into the verb to become suffixes.
- One would also have to stipulate that the weak series is limited to object positions. These suffixes never surface referencing a subject or with prepositions.
- In addition, the generalization above cannot be derived without further stipulating what type of objects positions weak pronouns cannot be found in. Specifically, one would have to say that weak pronouns are blocked:
 - When there is another singular pronoun.
 - When the verb is passive.
 - When they function as the underlying object of a causative.
- Assuming that the ‘weak’ and ‘strong’ versions of a pronoun are different syntactic items, these stipulations create a massive look ahead problem in the syntax.
- Finally, the obligatoriness of object suffixes when there is only one singular object pronoun remains unexplained under such an account:
 - If ‘strong’ singular pronouns are licensed in any object position, why are they not allowed to surface when there is only one object?
 - The morphophonological account predicts free variation between an object suffix and an object pronoun in such contexts.

Conclusion: Hypothesis 1 is untenable.

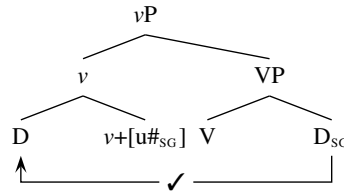
4.2 Hypothesis 2

- The second hypothesis holds that pronoun incorporation is a syntactic process, derived by some operation(s) in the syntax, perhaps via head movement of the pronoun to adjoin to v^0 , as shown in (32):

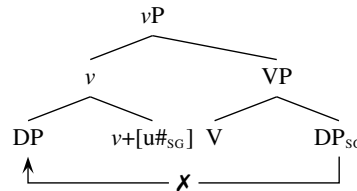
(32) [_{VP} V+v+OS [_{VP} ~~V~~ [_D ~~OS~~]]]

- Such an approach fares much better with the observed data. There are two core questions that must be answered:
 - Why does object suffixation only occur with singular pronouns?
 - What blocks object suffixation in contexts where it is blocked?
- With regards to the first question, I propose that, in Seereer, active v is equipped with a number probe ($\#$ -probe) relativized to search for singular features: [$u\#_{SG}$].
 - This probe triggers head movement of its goal.
 - I assume that pronouns are minimal D^0 which may undergo head movement, and therefore move to v .
 - On the other hand, full DPs cannot undergo head movement because they are maximal projections.

(33) **Singular Pronoun = head movement**



(34) **Singular DP = no head movement**



- Following (Preminger 2011), I further posit but that failure for 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 they are possible.
- The analysis also derives the complementary distribution of full DP objects and object suffixes. Object suffixes are only generated when a singular pronoun is merged.
- With regards to the second question, the account just sketched derives blocking of the object suffixes in the following way:
 - Because there is only one $\#$ -probe on v , only one object suffix is possible on any given verb.
 - 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.
- I will leave for later work differences between symmetrical DOCs and asymmetrical DOCs. One promising idea is that in asymmetrical DOCs, there is a phase boundary between v and the underlying object, preventing probing of that phrase (see Baker et al. 2012 for one such approach).

5 Conclusions

- In this talk, I have presented a description of Seereer object suffixes, focusing on their distribution and syntactic behavior.
- I have shown that object suffixes are best analyzed as incorporated pronouns.
- I have further shown that pronoun incorporation is triggered by a syntactic process which differentially targets singular DPs. I have sketched an implementation of this approach based on the idea that v bears a #-probe relativized to search for singular DPs.

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Appendix: The Morphology of Object Suffixes

- A templatic representation of the Seereer verb is presented in Table 4. Object suffixes fall towards the right edge of the verb.

SBJ.AGR-	V	-EXT	-ASP	-T	-NEG	-FS	-OS	-1/2.SBJ.AGR	-REL
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Table 4: The Seereer Verb

- The underlying forms of the three object suffixes is given in Table 5:

1SG	2SG	3SG
<i>-aam</i>	<i>-ong</i>	<i>-in</i>

Table 5: Object Suffixes

- Every finite verb must have a **final suffix**, of which there are two: the default vowel *-a* and the extraction suffix *-u*, which is found in contexts of \bar{A} -movement. When suffixed to a finite verb form, object suffixes interact with the final vowel present, as shown in Table 6:

Verb Form		1SG	2SG	3SG
Default	V- <i>a</i>	V- <i>axam</i>	V- <i>aang</i>	V- <i>aan</i>
Extraction	V- <i>u</i>	V- <i>axam</i>	V- <i>ong</i>	V- <i>un</i>

Table 6: Final Suffixes + Obj. Suffixes

- As can be seen from the verb template in Table X, 1SG and 2SG subject agreement morphemes are suffixes. This is only the case in finite verb forms. When there is both an object suffix and subject agreement suffix, they also interact. These interactions are shown in Table 7:

Verb Form		1SBJ>2OBJ	1SBJ>3OBJ	2SBJ>1OBJ	2SBJ>3OBJ
Default	V- <i>a</i>	V- <i>aaxong</i>	V- <i>aanum</i>	V- <i>axamo</i>	V- <i>aano</i>
Extraction	V- <i>u</i>	V- <i>ong</i>	V- <i>anum</i>	V- <i>axamo</i>	V- <i>ano</i>
Subject Suffix		<i>-um</i>		<i>-o</i>	

Table 7: Subject Suffixes + Obj. Suffixes

- In non-finite verb forms, there is no final suffix. However, the verb still takes an aspect suffix, marking either perfective (*-Ø*) or imperfective (*-aa*). Object suffixes also interact with these suffixes, and yield the forms in Table 8:

Verb Form		1SG	2SG	3SG
Perfective	V- \emptyset	V- <i>aam</i>	V- <i>ong</i>	V- <i>in</i>
Imperfective	V- <i>aa</i>	V- <i>am</i>	V- <i>ang</i>	V- <i>an</i>

Table 8: Aspect Suffixes + Obj. Suffixes