Chapter 5

Reflexive constructions in Jóola Fóoñi

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The reflexive constructions of Jóola Fóoñi (an Atlantic language spoken in south western Senegal) are characterized by a sharp distinction between subject-object coreference, which requires the use of derived forms of the verb, and other possible coreference relationships within the clause, which are not treated differently from coreference in discourse. Three verbal suffixes are involved in the coding of subject-object coreference, none of which is specialized in reflexive function: *-ɔɔr* (productive in reciprocal function, very marginally involved in reflexivization), *-ɔ* (productive in decausative and quasi-reflexive function, also used to encode reflexivization with body-care verbs), and *-ɔɔrɔ* (the default marker of subject-object coreference, also used to mark self-intensification of the subject).

1 Introduction

Jóola Fóoñi (a. k. a. Diola-Fogny), spoken in south western Senegal by approximately half a million speakers, belongs to the Bak group of languages included in the Atlantic family (see Figure 1).[1]

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[1]Jóola languages can be divided into Central Jóola, a dialect continuum within the limits of which it is difficult (if not impossible) to decide what is a language and what is a dialect, and peripheral Jóola varieties whose status as separate languages is hardly disputable, in spite of their close relationship to Central Jóola, such as Karon, Kwaataay, Mulomp-North, or Bayot. Jóola Fóoñi is part of the Central Jóola dialect continuum.
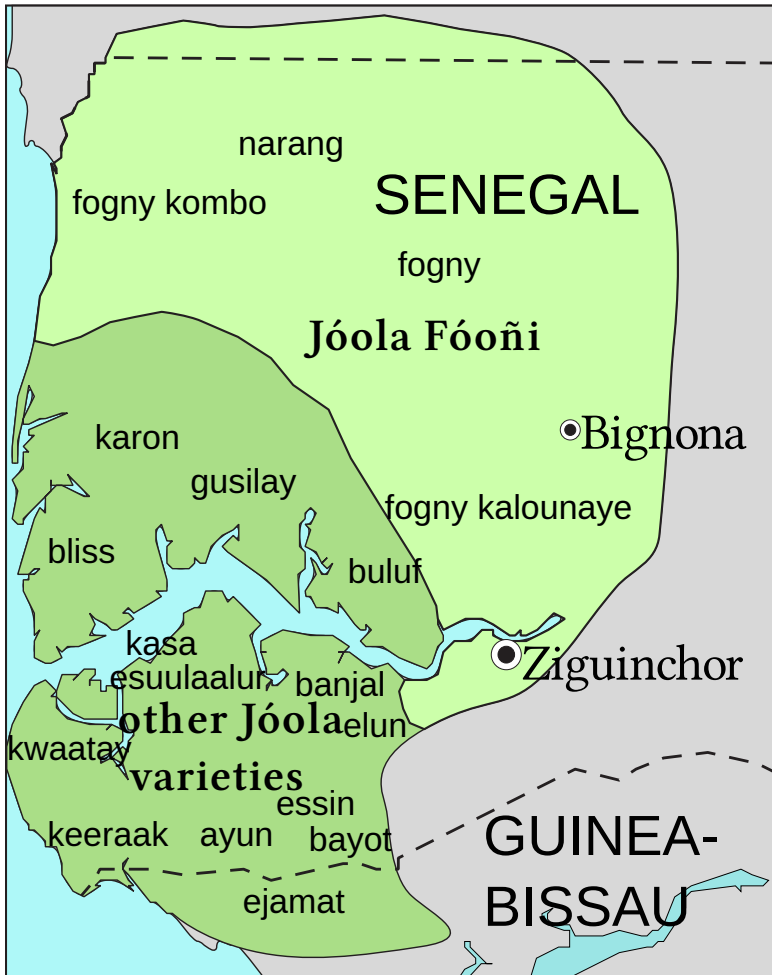
Figure 1: Jóola Fóoñi and the other Jóola languages

Three overall presentations of Jóola Fóoñi grammar are available: Weiss (1939), Sapir (1965), and Hopkins (1995), but none of them includes a discussion of reflexive constructions. The available documentation on the reflexive constructions of Jóola Fóoñi is limited to a few examples of the use of the verbal suffixes *-ɔ* and *-ɔɔrɔ*, designated by Sapir (1965: 51) as "reflexive-descriptive" and "strong reflexive", respectively. In particular, a crucial property of the suffix *-ɔɔrɔ*, namely the possibility of a non-reflexive use in which it marks self-intensification of the subject, has never been acknowledged before.

In a general way, we base our analysis of Jóola Fóoñi on a corpus of more than twelve hours of recorded naturalistic texts of various genres.[2] However, in contrast to other morphosyntactic phenomena on which we already worked, and for which our corpus provided abundant data, it turns out that reflexive constructions are very rare in our corpus, and the analysis of reflexive constructions presented in this paper would not have been possible without systematic recourse to elicitation. In fact, most of the examples we quote have been elicited. For this purpose we used the questionnaire (Janic & Haspelmath 2023 [this volume]).

The article is organized as follows. §2 provides background information on Jóola Fóoñi morphosyntax. §3 describes the general principles underlying the expression of coreference within the clause in Jóola Fóoñi, characterized by a sharp distinction between subject-object coreference, which requires verbal marking, and other configurations, which are not treated differently from coreference in discourse. §4 is on the reflexive and non-reflexive uses of the verbal suffixes involved in the coding of subject-object coreference. §5 gives additional precisions on the relationship between reflexivization and self-intensification, which constitutes a particularly original aspect of Jóola Fóoñi. §6 summarizes the main conclusions.

2 Background information on Jóola Fóoñi morphosyntax

2.1 Clause structure

2.1.1 Transitive-intransitive alignment

Like most of the languages of Subsaharan Africa, Jóola Fóoñi has a straightforward 'nominative-accusative' alignment system making it possible to define a grammatical relation 'subject' on the basis of a set of properties shared by A in the basic transitive construction and the sole argument of semantically monovalent verbs, and a grammatical relation 'object' on the basis of a set of properties that distinguish the P phrase in the basic transitive construction from noun phrases fulfilling other roles.

2.1.2 Subjects, objects and obliques

Subjects and objects are equally unflagged. The most obvious property that distinguishes them is that subjects are indexed by means of verbal prefixes, whereas

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[2]The texts have been transcribed by Boubacar Sambou (a graduate student in linguistics who is also a native speaker of the language), and analyzed by Alain Christian Bassène and Denis Creissels with the help of Boubacar Sambou.

objects are indexed by means of verbal suffixes. Moreover, as illustrated in (1), with the verb forms lending themselves to subject indexation, the prefixed subject index is obligatory (even in the presence of a subject NP) whereas object indexation, conditioned by topicality, is equally optional with all verb forms.[3]

(1) a. *Ɛyɛnɛy   ɛrʊnrʊm   añʊlaw.*
         ɛ-yɛn-ɛ-y   ɛ-rʊn-rʊm   a-ñʊl-a-w
         sɢ-dog(E)-ᴅᴇꜰ-clE sI:clE-bite-ʀᴅᴘʟ sɢ-child(A)-ᴅᴇꜰ-clA
         'The dog bit the child.'

     b. *Ɛrʊmɔɔrʊm.*
         ɛ-rʊm-ɔɔ-rʊm
         sI:clE-bite-I:clA-ʀᴅᴘʟ
         'It (the dog) bit him (the child).'

Subject NPs consistently precede the verb. The unmarked position for object NPs and obliques is after the verb, as in (2a), but in case of focalization (marked by the use of special verb forms also used in relative clauses), they move to clause-initial position, as in (2b).

(2) a. *Nɪjʊjʊk   Musaa.*
         n-ɪ-jʊ-jʊk   Musaa
         ᴘᴘꜰ-sI:1sɢ-see-ʀᴅᴘʟ Moussa(A)
         'I saw Moussa.'

     b. *Musaa   nɪjʊkʊm.*
         Musaa   n-ɪ-jʊk-ʊ-m
         Moussa(A) ᴘᴘꜰ-sI:1sɢ-see-ᴇᴘ-ᴀᴄᴛ$_1$
         'It is Moussa that I saw.'

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[3]Our transcription of the Jóola Fóoñi examples is a broad phonetic transcription that coincides with the official orthography as regards the notation of consonants, but departs from it in the notation of vowels, for which we follow the IPA conventions. This choice is motivated by the fact that the official orthography uses the acute accent to distinguish +ATR vowels from their −ATR counterparts, which may be confusing since accents are more commonly used to indicate word stress or tone. Phonological processes are responsible for variation in the form of some formatives. In particular, ATR harmony is responsible for variation in the vowels of most affixes, as illustrated by the non-subject index of class A, which depending on the context may surface as *-ɔɔl*, *-ool*, *-ɔɔ*, or *-oo*. Consonants in coda position are also often affected by phonological processes, as in *ɛrʊnrʊm* (1a), where the final consonant of *rʊm* 'bite' is modified in contact with the initial consonant of the reduplicative suffix, or in *nɪjʊjʊk* (2a), where the final consonant of *jʊk* 'see' is deleted for the same reasons.

Obliques are easy to distinguish from objects when they are introduced by a preposition, but unflagged obliques are relatively common in Jóola Fooñi. However, their indexation properties distinguish them from objects: some obliques cannot be indexed at all, and for those lending themselves to indexation, contrary to objects, the choice of the index is not sensitive to the gender-number of the NP in oblique role, but only to its semantic role. For example, in (3a), *esukey* 'the village' is not flagged, which could suggest analyzing it as an object, but if it were the case, it should be possible to substitute the class E index *-yɔ* for it, since *esuk* 'village' governs class E agreement. The fact that, in this sentence, *esukey* can only be represented by the locative class index *-bɔ*, as in (3b), shows that it must be analyzed as an unflagged oblique rather than as an object.

(3) a. *Kʊjajaw   esukey.*
      kʊ-ja-jaw   e-suk-e-y
      sI:clBK-go-RDPL sG-village(E)-DEF-clE
      'They went to the village.'

    b. *Esukey,   kʊjajawbɔ.*
      e-suk-e-y   kʊ-ja-jaw-bɔ
      sG-village(E)-DEF-clE sI:clBK-go-RDPL-I:clB
      'The village, they went there.'

In Jóola Fóoñi, there is no strict relative ordering of objects and obliques.

2.1.3 Transitivity prominence

Given that, in Jóola Fóoñi, transitivity is crucial in the conditioning of the expression of coreference within the clause, it is important to mention here that one of the salient typological characteristics of Jóola Fóoñi is its extremely high degree of transitivity prominence (i. e., a very strong tendency to extend transitive coding to verbs whose meaning departs from prototypical transitivity).

Creissels (forthcoming) proposes a questionnaire consisting of 30 verb meanings specially designed to evaluate the cross-linguistic variation in transitive prominence. The verb meanings that constitute this questionnaire are neither among those expressed by transitive verbs in (almost) all the languages for which the relevant data have been checked, nor among those that have a marked tendency to be expressed by verbs assigning other types of coding to their arguments.

Within the limits of this questionnaire, the ratio of transitive coding and other types of coding is for example 29.5 vs. 0.5 for Tswana (Bantu), 23 vs. 7 for Italian,

21 vs. 9 for Yoruba (Benue-Congo), 20.5 vs. 9.5 for Mandinka (Mande), 17 vs. 13 for Basque, 15.5 vs. 14.5 for Russian, 13 vs. 17 for Koroboro Senni (Songhay), and 3 vs. 27 for Akhvakh (Nakh-Daghestanian). Jóola Fóoñi, with a ratio of 29 vs. 1, is among the languages for which this questionnaire indicates an extremely high degree of transitivity prominence.

2.1.4 Multiple-object constructions and the coding of beneficiaries

Another salient characteristic of Jóola Fooñi, which has consequences for the productivity of voice markers in the expression of coreference within the clause, is the remarkable productivity of multiple-object constructions. In particular, double-object constructions are used not only for semantically trivalent verbs such as *sɛn* 'give' or *yisen* 'show', but also for bivalent verbs to which an NP with the semantic role of beneficiary is added.

In contrast to most Atlantic languages, Jóola Fóoñi does not use the applicative strategy to encode beneficiaries,[4] and does not have a benefactive adposition either: in Jóola Fóoñi, beneficiaries are simply encoded as objects that nothing distinguishes from the objects representing the P argument of transitive verbs. This results in the possibility of transitive constructions of semantically monovalent verbs, as in (4) with *jɔn* 'set (speaking of the sun)', and of double-object constructions of semantically bivalent verbs, as in (5) with *wɔnk* 'call'.

(4) a. *Bɐgunɐb*   *di bɔɔnɛ:*   "*Ɛɛnʊjaa*   *pan bʊjɔn,*
    bɐ-gun-ɐ-b   dɩ b-ɔɔnɛ   ɛɛn-ʊ-jaa   pan bʊ-jɔn
    sg-genius(B)-def-clB seq sI:clB-say sI:1sg.say-ep-hyp fut sI:clB-set

    pan bʊjɔn,   *barɛ ɛɛnʊjaa*   *lɛɛ*   *bʊjɔn,*   *lɛɛ*
    pan bʊ-jɔn   barɛ ɛɛn-ʊ-jaa   lɛɛ   bʊ-jɔn   lɛɛ
    fut sI:clB-set but sI:1sg.say-ep-hyp fut.neg sI:clB-set fut.neg

    bʊjɔn."
    bʊ-jɔn
    sI:clB-set

    'Then the genius said: "If I say that it will set (*balaab* 'the sun(B)'), it will set, but if I say that it will not set, it will not set."'

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[4]Jóola Fooñi has a single applicative marker (*-um*) exclusively used to license applied phrases with a prolative, instrumental, causal, motivative or mediative semantic role, which constitutes a typologically unusual situation.

b. *Ɐmooreɐw*   *naanoo:*   *"Añulaw*
   ɐ-moori-ɐ-w   n-aan-ɔɔ   a-ñul-a-w
   SG-marabout(A)-DEF-clA PPF-sI:clA.say-I:clA SG-child(A)-DEF-clA
   ʊmɛ,   *lɛɛ*   *bʊjɔnɔɔ."*
   ʊ-m-ɛ   lɛɛ   bʊ-jɔn-ɔɔ
   DEM-clA-PROX FUT.NEG sI:clB-set-I:clA
   'Then the marabout told her: "This child, he will die by this evening."'
   lit. 'It (*balaab* 'the sun(B)') will not set (for) him.'

(5)   a. *Nɩwɔnwɔnk*   *Musaa*   *añiilaw.*
       n-ɩ-wɔn-wɔnk   Musaa   a-ñul-a-w
       PPF-sI:1SG-call-RDPL Moussa(A) SG-child(A)-DEF-clA
       'I called the child for Moussa.'

   b. *Nɩwɔnkɔɔlɔɔwɔnk.*
       n-ɩ-wɔnk-ɔɔl-ɔɔ-wɔnk
       PPF-sI:1SG-call-I:clA-I:clA-RDPL
       'I called him (for) him.'

Given that non-specific P arguments may simply be left unexpressed, the coding of beneficiaries as objects may give rise to ambiguities of the type illustrated in (6).

(6)   *Pan ɩpɔsɔɔl.*
     pan ɩ-pɔs-ɔɔl
     FUT sI:1SG-wash-I:clA
     'I'll wash him.' *or* 'I'll do the washing for him.'

2.2 Nouns and noun phrases

Jóola Fóoñi has a gender system of the type commonly found in Niger-Congo languages, especially among Bantu and Atlantic languages, characterized by a close relationship (which however does not boil down to a straightforward one-to-one correspondence) between the division of nouns into subsets according to the way they express the singular vs. plural distinction, and their division into subsets according to the agreement marks they control on their modifiers or on the pronouns that resume them.

In Jóola Fooñi, each noun FORM is associated with one of thirteen possible agreement patterns, and genders can be defined as sets of nominal LEXEMES that are associated with the same agreement pattern both in the singular and the

plural. Agreement patterns and genders are conventionally designated here by capital letters that evoke the phonological form of the agreement markers. For example, 'dog' as a lexeme belongs to gender E/S, which means that the singular form *ɛ-yɛn* 'dog' is associated with the agreement pattern E (cf. *ɛ-yɛn ɛ-cɛɛn* 'some dog', *ɛ-yɛn ɛ-cɪla* 'the aforementioned dog', etc., to be compared for example with agreement pattern K in *ka-laak kʊ-cɛɛn* 'some field', *ka-laak kʊ-cɪla* 'the aforementioned field', etc.), whereas the corresponding plural form *sɪ-yɛn* is associated with the agreement pattern S (cf. *sɪ-yɛn sɪ-cɛɛn* 'some dogs', *sɪ-yɛn sɪ-cɪla* 'the aforementioned dogs', etc., to be compared with agreement pattern U in *ʊ-laak ʊ-cɛɛn* 'some fields', *ʊ-laak ʊ-cɪla* 'the aforementioned fields', etc.).

In our terminology, the term 'class' refers exclusively to cells in the morphological paradigm of adnominals and pronouns that can be the target of an agreement mechanism.[5] For example, *ɛ-cɛɛn* is the class E form of the determiner *-cɛɛn* 'some', and *sɪ-cɛɛn* is the class S form of the same determiner.

The inflectional paradigm of adnominals and pronouns consists of 15 cells. 13 of them are involved in one of the 13 possible agreement patterns for noun forms (and are labeled by means of the same capital letter), The remaining two (class D and class N) are only used pronominally or adverbially with meanings that do not refer to any possible controller: vague reference to things for class D, and time for class N. For example, 13 of the 15 possible forms of the indefinite determiner *-cɛɛn* 'some' are found in constructions in which their prefix can be analyzed as an agreement marker (*ɛ-yɛn ɛ-cɛɛn* 'some dog', *a-ñiil a-cɛɛn* 'some child', *u-bɐɐr ʊ-cɛɛn* 'some trees', *kɐ-rumbɐ kʊ-cɛɛn* 'some pot' etc.), but the morphological paradigm of *-cɛɛn* also includes two forms that do not correspond to any noun that could trigger their choice in an agreement mechanism, and can only be used pronominally (*dɪ-cɛɛn* 'something') or adverbially (*nɪ-cɛɛn* 'sometimes').

Gender A/BK (agreement pattern A in the singular, BK in the plural) coincides almost perfectly with the set of nouns denoting humans. The other genders are semantically heterogeneous.

Jóola Fóoñi has an enclitic definite article expressing class agreement with the noun to which it attaches.[6] As illustrated in (7), attributive adjectives agree with their head in definiteness.

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[5]For a detailed criticism of the way the term "class" is traditionally used in descriptions of Niger-Congo languages, the reader is referred to Güldemann & Fiedler (2017).

[6]Depending on the stem to which it attaches, the first formative of the enclitic definite article may surface as *-a-*, *-ɐ-*, *-ɛ-*, or *-e-*.

(7) a. *buбеer   beemek / bubeereb   beemekeb*
      bu-beer   b-eemek / bu-beer-e-b   b-eemek-e-b
      sg-tree(B) clB-big   sg-tree(B)-def-clB clB-big-def-clB
      'big tree'/'the big tree'

    b. *fal   feemek / falaf   feemekef*
      f-al   f-eemek / f-al-a-f   f-eemek-e-f
      sg-river(F) clF-big   sg-river(F)-def-clF clF-big-def-clF
      'big river'/'the big river'

Within noun phrases, the general rule is that modifiers follow their head. However, adnominal possessors differ from the other noun modifiers in that they may optionally precede their head. As illustrated in (8), adnominal possessors that follow their head are usually introduced by the genitive linker *-ati* expressing the gender and number of the head, whereas adnominal possessors preceding their head are obligatorily resumed by an index suffixed to their head.

(8) a. *aseekaw   ati   Musaa*
      a-seek-a-w   ∅-ati   Musaa
      sg-woman(A)-def-clA clA-gen Moussa(A)
      'Moussa's wife', lit. 'the wife that-of Moussa'

    b. *Musaa   aseekɔɔ*
      Musaa   a-seek-ɔɔl
      Moussa(A) sg-woman(A)-I:clA
      'Moussa's wife', lit. 'Moussa his wife'

2.3 Verb forms

With the exception of the imperative, in which the 2$^{\text{nd}}$ person prefix may optionally be deleted, the verb forms of Jóola Fóoñi consist minimally of a stem and a prefix. The stem may be a root (irreducible lexical element), or a root enlarged by one or more derivational suffixes.

According to the nature of their obligatory prefix, verb forms can be characterized morphologically as finite or non-finite:

- in finite verb forms, the obligatory prefix preceding the root is a subject index expressing the person (and in the 3$^{\text{rd}}$ person, the gender and number) of the subject argument;

- non-finite verb forms do not include a subject index, and their obligatory prefix characterizes them as belonging to one of the following three types of non-finite forms: infinitive, participle, or converb.

However, this morphological distinction does not coincide with the syntactic distinction between independent and dependent verb forms.

On the one hand, the relative verb forms, whose use is restricted to relative clauses and clauses in which a noun phrase or adverb is focalized, also include an obligatory subject index. They differ from the independent verb forms in the details of their TAM and polarity inflection. Independent verb forms may include TAM markers preceding the subject index, whereas the inflection of relative verb forms is purely suffixal, and includes a special paradigm of three 'actualizers' (glossed ACT) that have no equivalent in the inflection of independent verb forms.[7]

On the other hand, the non-finite verb forms as defined above, in addition to uses that justify the labels we use to designate them (infinitive, participle, and converb), can also be used by themselves (i. e., without having to combine with an auxiliary) as the nucleus of independent assertive clauses expressing TAM values distinct from those expressed by morphologically finite verb forms.

2.4 Personal pronouns and indexes

The inventory of personal pronouns and indexes is given in Tables 1 and 2. There is a single morphological paradigm of free pronouns, but two distinct paradigms of indexes. The forms given in these two tables are those that can be considered basic; depending on the contexts in which they occur, they may be modified by regular morphophonological processes.[8]

Note that:

- There is no dedicated subject index of 2nd person plural. 2nd person plural subjects are indexed by means of the class J index (*j-*), which can also be used optionally to index 1st person plural subjects instead of the dedicated 1st person plural index *ʊ-*. We do not know the historical explanation of the use of the class J index to represent speech act participants.

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[7]The actualizers characterize the event to which the relative verb form refers as irrealis (ACT_0), realis (ACT_1), or having a close relationship with the time of utterance (ACT_0). The ACT_2 marker *-ñaa* results from the grammaticalization of the adverb *ñaa* 'now'. In its presence, the incompletive aspect is interpreted as expressing present progressive, and the completive aspect is interpreted as expressing recent past.

[8]In particular, in combination with +ATR stems, all the indexes whose underlying form includes a −ATR vowel undergo ATR harmony.

Table 1: 1ˢᵗ and 2ⁿᵈ person pronouns and indexes

	Free pronouns	Subject indexes	Non-subject indexes
1 sg	*inje*	*ɪ-*	*-ɔm ~ -aam*
2 sg	*aw*	*ʊ-*	*-ɪ*
1pl.excl	*uli ~ oli*	*ʊ-*	*-oli*
1pl.incl	*walaal ~ ɔlaal*	*ʊ-...-aal*	*-ɔlaal*
2pl	*mʊyʊʊl ~ mɪyʊʊl*	–	*-ʊʊl*

Table 2: 3ʳᵈ person pronouns and indexes

	Free pronouns	Subject indexes	Non-subject indexes
cl. A	*ɔɔ*	*a-*	*-ɔɔl*
cl. BK	*k-ɔɔ ~ bʊk-ɔɔ*	*k-*	*-ʊl*
cl. E	*y-ɔɔ*	*ɛ-*	*-yɔ*
cl. S	*s-ɔɔ*	*s-*	*-sɔ*
cl. F	*f-ɔɔ*	*f-*	*-fɔ*
cl. K	*k-ɔɔ*	*k-*	*-kɔ*
cl. B	*b-ɔɔ*	*b-*	*-bɔ*
cl. Ñ	*ñ-ɔɔ*	*ñ-*	*-ñɔ*
cl. U	*w-ɔɔ*	*ʊ-*	*-wɔ*
cl. J	*j-ɔɔ*	*j-*	*-jɔ*
cl. M	*m-ɔɔ*	*m-*	*-mɔ*
cl. T	*t-ɔɔ*	*t-*	*-tɔ*
cl. D′	*d-oo ~ r-oo*	*d- ~ r-*	*-do ~ -ro*
cl. D	*d-ɔɔ ~ r-ɔɔ*	*∅-*	*-dɔ ~ -rɔ*
cl. N	*n-ɔɔ*	–	*-nɔ*

- The lack of subject index of class N is due to the fact that there is no noun triggering class N agreement, and class N forms are exclusively used as adverbs.

- Non-subject indexes can be suffixed not only to verbs, but also to nouns (as possessive indexes), to some adnominal particles, and to some adpositions.

- Non-subject indexes suffixed to verbs can index not only objects, but also some obliques. There is however an important distinction: as object indexes, they agree in gender-number with their antecedent, whereas oblique indexes are determined by the function of the oblique phrase they represent (for example, in object function, *esukey* 'the village' – gender E/S – is indexed by the E class index *-yɔ*, whereas the spatial adjunct *dɩ esukey* 'in the village' is indexed by the class B index *-bɔ*).

As illustrated in (9b) (to be compared with the adpossessive construction in 9a), with the exception of the two unanalysable stems *-umbɐ(ɐm)* (1st person singular possessive) and *-uya* (2nd person singular possessive), possessive pronouns (also used as possessive determiners) consist of a class prefix marking agreement with their antecedent or head (the possessee), a stem *-ɔɔl-* (glossed POSS), and a suffixed index representing the possessor.

(9)   a. *ʊwɔsaw   watɩ   fujicelɐf*
         ʊ-wɔs-a-w   w-ati   fu-jicel-ɐ-f
         PL-ear(U)-DEF-clU clU-GEN sG-male.goat(F)-DEF-clF
         'the ears of the male goat'

     b. *wɔɔlʊfɔ*
         w-ɔɔl-ʊ-fɔ
         clU-POSS-EP-I:clF
         lit. 'those of it' (possessee of class U, possessor of class F)

3 Coreference within the clause: general principles

Jóola Fóoñi does not have reflexive pronouns or indexes, and does not have logophorics or long-distance reflexives either. This means that coreference relationships within the clause that do not require verbal marking are not treated differently from coreference in discourse, and the same applies to coreference relationships across clause boundaries in complex constructions.

In the examples of coreference within the clause that we have been able to find in our corpus or to elicit, the subject is most of the time one of the two terms of the clause involved in the coreference relationship, and in all cases, the fact that the subject is involved in a coreference relationship with another term of the clause (object, oblique, or adpossessor) has no incidence on its coding.

The most salient characteristic of Jóola Fóoñi with respect to the expression of coreference within the clause is a particularly clearcut distinction between subject-object coreference and all other possible configurations, including subject-oblique coreference and subject-adpossessor coreference:

- Subject-object coreference obligatorily implies verbal marking by means of voice markers that reduce by one the number of objects with which the verb can combine.

- In all the other possible configurations, there is no verbal marking, and one of the two terms of the clause involved in the coreference relationship is encoded in the same way as if it resumed a referent to be retrieved from a previous sentence.

All the voice markers that may be involved in reflexivization have possible functions other than the marking of reflexivization, and the verb forms they are part of may be ambiguous between a reflexive reading and other interpretations.

Note that, given the very high degree of transitivity prominence of Jóola Fóoñi and the extensive use of multiple-object constructions, subject-object coreference in Jóola Fóñi often corresponds to other syntactic types of coreference in other languages. In particular, with ditransitive verbs, agent-theme coreference and agent-goal coreference are just particular cases of subject-object coreference, and when semantically plausible, are not treated differently from agent-patient coreference with monotransitive verbs. Moreover, the fact that beneficiaries are simply encoded as objects (see §2.1) results in that, in Jóola Fóoñi, auto-benefaction (or agent-beneficiary coreference) is also a particular case of subject-object coreference (see §4.2.4).

Subject-object coreference will be described in detail in §4. For the moment, we limit ourselves to illustrating the following two principles:

- in all the possible coreference relationships within the clause other than subject-object coreference, one of the two terms is encoded by means of pronouns or indexes that are not specialized in the expression of coreference within the clause;

- the possibility of interpreting non-subject pronouns or indexes as having an antecedent within the clause is conditioned by the syntactic hierarchy subject > object > oblique.

In all the examples quoted in the remainder of this section to illustrate coreference relationships within the clause other than subject-object coreference, the pronoun coreferential with another term of the clause can in principle be also interpreted as resuming a referent to be retrieved from the context, although semantically, this latter interpretation is not always equally plausible, and is sometimes totally excluded for semantic reasons.

Example (10) shows that a possessive pronoun modifying an object may have the subject as its antecedent. The same possibility exists for adpossessor indexes attached to objects.

(10) *Nawanwañ*   *kalaakak*   *kɔɔla.*
     n-a-wan-wañ   ka-laak-a-k   k-ɔɔl-a
     PPF-sI:clA-cultivate-RDPL SG-field(K)-DEF-clK clK-POSS-I:clA
     'He$_i$ cultivated his$_{i/j}$ field.'

This configuration (with an object modified by an adpossessor index or possessive pronoun resuming the subject) is in particular the configuration found with body-care verbs in constructions in which the object noun specifies the body part directly affected by the action, and the affected person is encoded as an adpossessor, as in (11). In such constructions, if the affected person is represented by a possessive pronoun or adpossessor index whose person-gender-number features coincide with those of subject, nothing indicates whether it must be understood as coreferential with the subject, or as resuming a referent to be retrieved from the context:[9]

(11)   a. *Nɐciiciik*   *fʊlɛmpɔɔl.*
       n-ɐ-cii-ciik   fʊ-lɛmp-ɔɔl
       PPF-sI:clA-shave-RDPL SG-beard(F)-I:clA
       'He$_i$ shaved his$_{i/j}$ beard.'

   b. *Nakɔkɔf*   *ukamunool.*
       n-a-kɔ-kɔf   u-kɐmun-ool
       PPF-sI:clA-scratch-RDPL PL-leg(U)-I:clA
       'He$_i$ scratched his$_{i/j}$ legs.'

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[9]The object of body-care verbs may also represent the affected person, and in that case, as can be expected from the general rules, coreference with the subject requires reflexive marking on the verb – see §4.3.2.

Example (12) shows that an adpossessor index attached to an oblique may have the subject as its antecedent. In this particular example, a non-coreferential reading is ruled out by semantic considerations.

(12) *Najʊkujʊkʊbɔ*   *dι* *kucilool.*
n-a-jʊk-ιι-jʊk-ʊ-bɔ   dι ku-cil-ool
PPF-sI:clA-see-I:clBK-RDPL-EP-I:clB PREP PL-eye(K)-I:clA
'He_i saw them there with his_i own eyes.'

Examples (13–14) illustrate the possibility that in multiple-object constructions, an adpossessor index or possessive pronoun included in an object phrase has another object as its antecedent.

(13) *Kat* *añulaw*   *ιñaayɔɔl!*
kat a-ñul-a-w   ιñaay-ɔɔl
leave SG-child(A)-DEF-clA mother(A)-I:clA
'Leave the child_i to his_i/j mother.'

(14) *Nιsancɛnɔɔsancɛn*   *mɔɔla.*
n-ι-sancɛn-ɔɔ-sancɛn   m-ɔɔl-a
PPF-sI:1SG-speak-I:clA-RDPL clM-POSS-I:clA
'I spoke with him about him(self).'
lit. 'I told him_i his_i/j (matter).'

Example (15) illustrates the possibility that a possessive pronoun modifying an oblique has an object as its antecedent.

(15) *Nιjʊjʊk*   *ɐkuutɐɐw*   *dι* *ɛlʊʊpɛy*
n-ι-jʊ-jʊk   ɐ-kuutɐ-ɐ-w   dι ɛ-lʊʊp-ɛ-y
PPF-sI:1SG-see-RDPL SG-thief(A)-DEF-clA PREP SG-house(E)-DEF-clE
yɔɔla.
y-ɔɔl-a
clE-POSS-I:clA
'I saw the thief_i in his_i/j house.'

Example (16) shows that an oblique may be the antecedent of a possessive pronoun modifying another oblique.

(16) *Nayabɔyabɔ*   *dɪ*   *ɐniinɐɐw*   *ʋmɛ*
     n-a-yabɔ-yabɔ   dɪ   ɐ-niinɐ-ɐ-w   ʋ-m-ɛ
     ᴘᴘꜰ-sI:clA-get.married-ʀᴅᴘʟ ᴘʀᴇᴘ sɢ-man(A)-ᴅᴇꜰ-clA ᴅᴇᴍ-clA-ᴘʀᴏx

     matɪ   *sikoorɐɐs*   *sɔɔla.*
     matɪ   si-koori-ɐ-s   s-ɔɔl-a
     because.of ᴘʟ-money(S)-ᴅᴇꜰ-clS clS-ᴘᴏss-I:clA

     'She got married with this man_i because of his_i money.'

Finally, examples (17–18) illustrate subject-oblique coreference.

(17) *Najʋjʋk*   *ɛwɛla*   *bajandɪ ɔɔ.*
     n-a-jʋ-jʋk   ɛ-wɛla   bajandɪ ∅-ɔɔ
     ᴘᴘꜰ-sI:clA-see-ʀᴅᴘʟ sɢ-snake(E) near   clA-ᴘʀᴏ

     'He_i saw a snake near him(self)_{i/j}.'

(18) *Najanjam*   *kawɛl*   *bɐlɐmukool.*
     n-a-jan-jam   ka-wɛl   bɐlɐmuk-ool
     ᴘᴘꜰ-sI:clA-hear-ʀᴅᴘʟ sɢ-noise(K) behind-I:clA

     'He_i heard a noise behind himself_i.'

We have not been able to find examples of coreference relationship involving two objects in a multiple object construction, and speakers seem to avoid this configuration, as illustrated for example by the fact that 'X showed Y to self (in the mirror)' is rendered literally as 'X showed Y his/her face (in the mirror)', with the second term of the coreference relationship encoded as an adpossessor.

4 The verbal marking of coreference within the clause

As already mentioned in §3, in Jóola Fooñi, verbal marking by means of voice markers is obligatory in case of subject-object coreference, whereas no verbal marking can be observed in the other possible configurations. In §4.1, we briefly illustrate the reflexive use of the three voice markers involved in reflexive marking (*-ɔɔrɔ*, *-ɔ* and *-ɔɔr*). A detailed description of the reflexive and non-reflexive uses of each of them is provided in §4.2 (*-ɔɔrɔ*), §4.3 (*-ɔ*), and §4.4 (*-ɔɔr*).

4.1 The voice markers involved in reflexive marking

Jóola Fóoñi has six verbal suffixes involved in the marking of valency operations, and three of them are involved in reflexive marking:[10]

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[10]The other three are *-ɛn* 'causative', *-um* 'applicative', and *-ɪ* 'passive'.

- *-ɔɔrɔ* (~ *-ooro* in combination with +ATR verb roots), labeled "strong reflexive" by Sapir (1965);

- *-ɔ* (~ *-o* in combination with +ATR verb roots), labeled "reflexive-descriptive" by Sapir (1965);

- *-ɔɔr* (~ *-oor* in combination with +ATR verb roots), labeled "reciprocal" by Sapir (1965).

The behavior of these three suffixes in the inflected forms of the verb including the reduplicative suffix provides decisive evidence that they must be analyzed as voice markers forming part the verb stem, rather than reflexive indexes.[11] The point is that, as illustrated in (19c) for *-ɔɔrɔ*, they are systematically repeated in the inflected forms of the verb including the reduplicative suffix, like other derivational suffixes forming part of the stem, whereas object indexes occur just once (19a–19b), either before the reduplicative suffix (human object indexes) or after it (non-human object indexes).[12]

(19) a. *Ɛyɛnɛy*   *ɛrʊnrʊmʊfɔ.*
          ɛ-yɛn-ɛ-y   ɛ-rʊn-rʊm-ʊ-**fɔ**
          sɢ-dog(E)-ᴅᴇꜰ-clE sI:clE-bite-ʀᴅᴘʟ-ᴇᴘ-I:clF
          'The dog bit it (*fujicelɛf* 'the male goat').'

      b. *Ɛyɛnɛy*   *ɛrʊmɔɔrʊm.*
          ɛ-yɛn-ɛ-y   ɛ-rʊm-**ɔɔ**-rʊm
          sɢ-dog(E)-ᴅᴇꜰ-clE sI:clE-bite-I:clA-ʀᴅᴘʟ
          'The dog bit him (*añulaw* 'the child').'

      c. *Ɛyɛnɛy*   *ɛrʊmɔɔrɔrʊmɔɔrɔ.*
          ɛ-yɛn-ɛ-y   ɛ-rʊm-**ɔɔrɔ**-rʊm**ɔɔrɔ**
          sɢ-dog(E)-ᴅᴇꜰ-clE sI:clE-bite-ɔɔʀɔ-ʀᴅᴘʟ
          'The dog bit itself.'

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[11]The reduplicative suffix cannot be analyzed as carrying a particular TAM value by itself, but it is an obligatory element of two non-relative forms of the verb expressing completive aspect and habitual aspect, respectively. It disappears in the corresponding relative forms, for example *kʊ-rɛ-rɛg* 'they said'/*kʊ-rɛg-ɛ-rɛg* 'they say (habitually)' vs. *kʊ-rɛg-ʊ-m* 'that they said' (where *-ʊ-* is an epenthetic vowel)/*kʊ-rɛg-ɛ-m* 'that they say'.

[12]In the presentation of the examples, the gloss ʀᴇꜰʟ is avoided, because it might be a source of confusion, given that each of the suffixes involved in reflexivization also has non-reflexive uses.

This unambiguously shows that, according to the classification of reflexiviz-ers put forward by Haspelmath (2023 [this volume]), *-ɔɔrɔ* is a not a reflexive argument marker, since it cannot be described as alternating in the same slots as object indexes. The only possible interpretation of the data in (19) is that, in the morphological structure of verb forms, *-ɔɔrɔ* occupies a stem-internal slot (and is consequently repeated if the stem is reduplicated), as opposed to the stem-external slot occupied by object indexes, which in the same conditions are not repeated. Additional evidence is provided by a number of suffixes whose pres-ence makes evident that *-ɔɔrɔ* does not alternate with object indexes. For example, the negative suffix *-ʊt* follows *-ɔɔrɔ* but precedes object indexes (as in *ɛ-yɛn-ɛ-y ɛ-rʊm-ɔɔrɔ-ʊt* 'The dog did not bite itself' vs. *ɛ-yɛn-ɛ-y ɛ-rʊm-ʊt-ɔɔl* 'The dog did not bite him (the child)'), and the same can be observed in the presence of *-ɛɛn* (past marker), *-ʊlɔ* (venitive marker), *-ɛ* (incompletive marker), or *-aal* (inclusive marker).

As regards their position with respect to the other formatives that constitute the verb forms of Jóola Fóoñi, *-ɔ* and *-ɔɔr* have exactly the same properties as *-ɔɔrɔ*. Accordingly, we conclude that, in the classification of reflexivizers put forward Haspelmath (2023 [this volume]), *-ɔɔrɔ*, *-ɔɔ* and *-ɔɔr* are *bona fide* reflexive voice markers.

In their reflexive function, these three suffixes equally reduce by one the num-ber of objects compatible with the verb in its underived form, and the semantic correlate of this reduction is that the participant roles fulfilled by the subject and (one of) the object(s) in the construction of the base verb are cumulated by a single participant, encoded as the subject of the derived verb. This is illustrated in (20) for *-ɔɔrɔ*, in (21) for *-ɔ*, and in (22) for *-ɔɔr*.

(20)   a.   *Ɐniinɐɐw   basɔfɛ   epimbeney   m'aabʊj*
            ɐ-niine-ɐ-w   ba-sɔf-ɛ   e-pimben-e-y   man a-bʊj
            sɢ-man(A)-ᴅᴇꜰ-clA ᴄᴠʙ-catch-ᴄᴠʙ sɢ-gun(E)-ᴅᴇꜰ-clE ᴄsᴄ sI:clA-kill
            ɐkuutɐɐw.
            ɐ-kuutɐ-ɐ-w
            sɢ-thief(A)-ᴅᴇꜰ-clA
            'The man took the gun and killed the thief.'

        b.   *Ɐniinɐɐw   baraanɛ   bɛɛbɛn   m'aabʊjɔɔrɔ.*
            ɐ-niine-ɐ-w   ba-raan-ɛ   b-ɛɛbɛn   man a-bʊj-ɔɔrɔ
            sɢ-man(A)-ᴅᴇꜰ-clA ᴄᴠʙ-drink-ᴄᴠʙ sɢ-poison(B) ᴄsᴄ sI:clA-kill-ɔɔʀɔ
            'The man committed suicide (lit. 'killed himself') by drinking poison.'

(21) a. *Nan   alaañʊlɔm   bʊtab,*
         n-an   a-laañ-ʊlɔ-m   b-ʊt-a-b
         clN-ʀᴇʟ sI:clA-return-ᴠᴇɴ-ᴀᴄᴛ₁ sɢ-rice.field(B)-ᴅᴇF-clB
         asɛɛkaw   napɔs   añʊlaw.
         a-sɛɛk-a-w   n-a-pɔs   a-ñʊl-a-w
         sɢ-woman(A)-ᴅᴇF-clA ᴘᴘF-sI:clA-wash sɢ-child(A)-ᴅᴇF-clA
         'After returning from the rice field, the woman washed the child.'

      b. *Nan   alaañʊlɔm   bʊtab,*
         n-an   a-laañ-ʊlɔ-m   b-ʊt-a-b
         clN-ʀᴇʟ sI:clA-return-ᴠᴇɴ-ᴀᴄᴛ₁ sɢ-rice.field(B)-ᴅᴇF-clB
         asɛɛkaw   napɔsɔ.
         a-sɛɛk-a-w   n-a-pɔs-ɔ
         sɢ-woman(A)-ᴅᴇF-clA ᴘᴘF-sI:clA-wash-ɔ
         'After returning from the rice field, the woman washed (herself).'

(22) a. *Ŋar fʊmbanjaf   man uguuy   añʊlaw.*
         ŋar   fʊ-mbanj-a-f   man u-guuy   a-ñʊl-a-w
         take sɢ-blanket(F)-ᴅᴇF-clF ᴄꜱᴄ sI:2sɢ-cover sɢ-child(A)-ᴅᴇF-clA
         'Take the blanket and cover the child (with it).'

      b. *Ŋar fʊmbanjaf   man uguuyoor.*
         ŋar   fʊ-mbanj-a-f   man u-guuy-oor
         take sɢ-blanket(F)-ᴅᴇF-clF ᴄꜱᴄ sI:2sɢ-cover-ᴏᴏʀ
         'Take the blanket and cover yourself (with it).'

However, none of these three suffixes is specialized in reflexive marking. More-over, as reflexivizers, they are not interchangeable, and their non-reflexive uses are very different.

4.2 Reflexive and non-reflexive uses of *-ɔɔrɔ*

4.2.1 *-ɔɔrɔ* as the default marker of subject-object coreference

The verbal suffix *-ɔɔrɔ* can be analyzed as the default marker of subject-object coreference, freely available for the transitive verbs that do not belong to a re-stricted semantic class of transitive verbs that regularly mark subject-object coreference by means of *-ɔ* (see §4.3), and are not lexically specified as marking subject-object coreference by means of *-ɔ* or *-ɔɔr* (see §4.3–§4.4).

4.2.2 *-ɔɔrɔ* and the coding of A-P coreference

The reflexive use of *-ɔɔrɔ* has already been illustrated above with *rʊm-ɔɔrɔ* 'bite oneself' in (19c) and *bʊj-ɔɔrɔ* 'kill oneself' in (20b). Examples (23–25) further illustrate the use of *-ɔɔrɔ* to derive intransitive verbs expressing agent-patient coreference, and more generally, coreference between the core arguments of mono-transitive verbs.

(23) *An   acɛsɔɔrʊtɔɔl,   ɔɔ*
       an   a-cɛsɔɔr-ʊt-ɔɔl   Ø-ɔɔ
       person(A) sI:clA-chase.away-NEG-I:clA clA-PRO
       acɛsɔɔrɔɔrɛ.
       a-cɛsɔɔr-ɔɔrɔ-ɛ
       sI:clA-chase.away-ɔɔRɔ-COMPL
       'Nobody chased him away, he himself decided to leave.'
       lit. 'it's him who chased himself away'

(24) *Naŋɔɔlɛnŋɔɔlɛn   apacɛn   bʊkaakʊ,   barɛ*
       n-a-ŋɔɔlɛn-ŋɔɔlɛn   a-pacɛn   bʊk-aa-kʊ   barɛ
       PPF-sI:clA-be.able-RDPL sI:clA-save clBK-other-clBK but
       aŋɔɔlɛnʊt   apacɛnɔɔrɔ.
       a-ŋɔɔlɛn-ʊt   a-pacɛn-ɔɔrɔ
       sI:clA-be.able-NEG sI:clA-save-ɔɔRɔ
       'He was able to save the others, but not to save himself.'

(25) *Anɔɔsan   atɛbɛnɔɔrɔm,   Atɪjamɪt pan awalɛnɔɔl,*
       Ø-anɔɔsan a-tɛbɛn-ɔɔrɔ-m   Atɪjamɪt pan a-walɛn-ɔɔl
       clA-any   sI:clA-lift.up-ɔɔRɔ-ACT₁ God(A)   FUT sI:clA-bring.down-I:clA
       barɛ anɔɔsan   awalɛnɔɔrɔm,   Atɪjamɪt pan
       barɛ Ø-anɔɔsan a-walɛn-ɔɔrɔ-m   Atɪjamɪt pan
       but clA-any   sI:clA-bring.down-ɔɔRɔ-ACT₁ God(A)   FUT
       atɛbɛnɔɔl.
       a-tɛbɛn-ɔɔl
       sI:clA-lift.up-I:clA
       'Whoever exalts himself, God will humble him, but whoever humbles himself, God will exalt him.' (from the Jóola Fóoñi translation of the New Testament)

In our data, the coding of A-P coreference by means of *-ɔɔrɔ* is attested by the verbs listed in Table 3.[13]

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[13]In the case of polysemous verbs, the translation of the base verb given in this table is that corresponding to the meaning of the reflexive derivate attested in our data.

Table 3: Verbs attesting the use of *-ɔɔrɔ* to mark A-P coreference

Reflexive verb	Base verb
bɛbɛn-ɔɔrɔ	*bɛbɛn* 'calm s.o. down'
buken-ooro	*buken* 'hurt s.o.'
bʊj-ɔɔrɔ	*bʊj* 'kill s.o.'
bʊnt-ɔɔrɔ	*bʊnt* 'fool s.o.'
cɛsɔɔr-ɔɔrɔ	*cɛsɔɔr* 'chase s.o. away'
gamɛn-ɔɔrɔ	*gamɛn* 'judge s.o.'
jɛl-ɔɔrɔ	*jɛl* 'insult s.o.'
jʊk-ɔɔrɔ	*jʊk* 'see s.o.'
jʊʊr-ɔɔrɔ	*jʊcɛr* 'look at s.o.'
kambɛn-ɔɔrɔ	*kambɛn* 'lock s.o.'
kɐɐnum-ooro	*kɐɐnum* 'take care of s.o.'
lat-ɔɔrɔ	*lat* 'hate s.o.'
manj-ɔɔrɔ	*manj* 'know s.o.'
maŋ-ɔɔrɔ	*maŋ* 'like s.o.'
nag-ɔɔrɔ	*nag* 'hit s.o.'
pacɛn-ɔɔrɔ	*pacɛn* 'save s.o.'
pɐjul-ooro	*pɐjul* 'separate s.o. out'
rambɛn-ɔɔrɔ	*rambɛn* 'help s.o.'
rʊm-ɔɔrɔ	*rʊm* 'bite s.o.'
sal-ɔɔrɔ	*sal* 'praise s.o.'
tɛbɛn-ɔɔrɔ	*tɛbɛn* 'glorify s.o.'
walɛn-ɔɔrɔ	*walɛn* 'humiliate s.o.'

4.2.3 *-ɔɔrɔ* and the coding of agent-goal coreference

Given the extensive use of multiple-object constructions in Jóola Fóoñi, with ditransitive verbs, agent-goal coreference is a particular case of subject-object coreference, and is consequently productively encoded by means of *-ɔɔrɔ*, examples (26–27).

(26) *Ʊjʊk, aw faŋɪ nʊlanlaañ umɐrulooro.*
ʊ-jʊk aw faŋ-ɪ n-ʊ-lan-laañ u-mɐrul-ooro
sI:2sg-look 2sg.pro self-2sg ppf-sI:2sg-return-rdpl sI:2sg-answer-ɔɔrɔ
'Look, you answered your own question yourself again.'
lit. 'Look, you answered yourself again.'

(27) *Nımammaŋ   man ʊsɛnɔɔrɔ   kʊnak   kufeeji   man*
n-ı-mam-maŋ   man ʊ-sɛn-ɔɔrɔ   kʊ-nak   ku-feeji   man
PPF-sI:1SG-want-RDPL CSC   sI:2SG-give-ɔɔRɔ   PL-day(K) clK-three CSC
ʊwɔnɔɔr   jak.
ʊ-wɔnɔɔr   jak
sI:2SG-think well
'I would like you to give yourself three days to think about it well.'

4.2.4 *-ɔɔrɔ* and the coding of agent-beneficiary coreference

The suffix *-ɔɔrɔ* is also productively used to encode autobenefaction (i. e., agent-beneficiary coreference), examples (28–29). This is consistent with the fact that, in Jóola Fóoñi, beneficiaries are simply encoded as objects.

(28) a. *Nınɔɔmɛ   asɛɛkom   ewoto.*
n-ı-nɔɔm-ɛ   a-sɛɛk-ɔm   e-woto
PPF-sI:1SG-buy-COMPL SG-woman(A)-I:1SG SG-car(E)
'I bought a car for my wife.'

  b. *Nınɔɔmɔɔrɔɛ   ewoto.*
n-ı-nɔɔm-ɔɔrɔ-ɛ   e-woto
PPF-sI:1SG-buy-ɔɔRɔ-COMPL SG-car(E)
'I bought a car for myself.'

(29) a. *Fɔk   ıñɛs   añɔɔlɔm   asɛɛk.*
fɔk   ı-ñɛs   a-ñɔɔl-ɔm   a-sɛɛk
OBLG sI:1SG-look.for SG-child(A)-I:1SG SG-woman(A)
'I must look for a wife for my son.'

  b. *Fɔk   ıñɛsɔɔrɔ   asɛɛk.*
fɔk   ı-ñɛs-ɔɔrɔ   a-sɛɛk
OBLG sI:1SG-look.for-ɔɔRɔ SG-woman(A)
'I must look for a wife for myself.'

4.2.5 *-ɔɔrɔ* as a marker of self-intensification of the subject

As a valency operator, *-ɔɔrɔ* is exclusively used to encode reflexivization in one of the configurations illustrated in the previous sections. However, in addition to its use as the default marker of subject-object coreference, *-ɔɔrɔ* is also productively used as a marker of SELF-INTENSIFICATION OF THE SUBJECT. In this use, *-ɔɔrɔ* has no incidence on the valency properties of the verb to which it attaches, and its

contribution to the meaning of the clause corresponds to that more commonly expressed cross-linguistically by free intensifying self-forms having scope on the subject, as in *John HIMSELF came* or *John came HIMSELF*.[14]

In its function of self-intensification of the subject, *-ɔɔrɔ* can attach to intransitive verbs, as in (30).

(30) *Inje   ɩjawɔɔrɔɛ   bɛɛbɔ.*
      inje   ɩ-jaw-ɔɔrɔ-ɛ   bɛɛ-bɔ
      1SG.PRO sI:1SG-go-ɔɔRɔ-COMPL ALL-I:clB
      'It's me who went there in person.'

With intransitive verbs, the only possible ambiguity is between self-intensification of the subject and autobenefaction.

With transitive verbs, the choice between the possible interpretations of *-ɔɔrɔ* (coreference between the subject and another core argument, autobenefaction, or self-intensification of the subject) is partly conditioned by the presence vs. absence of object NPs or indexes. However, the choice between an autobenefactive reading and a self-intensification reading can only rely on the context, since in the autobenefactive use of *ɔɔrɔ*-verbs, the valency operation is not apparent. For example, in (31a), *kambɛn-ɔɔrɔ* is interpreted as encoding agent-patient coreference ('lock self'). In (31b), the presence of the object index *-kɔ* excludes this possibility, but the first part of the sentence is decisive for the choice between the two possible readings 'close s.th. for self' (autobenefactive) and 'close s.th. oneself' (self-intensification of subject).

(31) a. *Jaw ʋkambɛnɔɔrɔ   dɩ   kalɩmbɩsak   man ʋwʋraŋ.*
          jaw ʋ-kambɛn-ɔɔrɔ   dɩ   ka-lɩmbɩs-a-k   man ʋ-wʋraŋ
          go sI:2SG-close-ɔɔRɔ PREP SG-room(K)-DEF-clK CSC sI:2SG-undress
          'Go and lock yourself in the room to change your clothes.'

      b. *Nɛɛnɔɔ   akambɛn   kajʋnkʋtak,   naanɛ*
          n-ɛɛn-ɔɔ   a-kambɛn   ka-jʋnkʋt-a-k   n-aanɛ
          PPF-sI:1SG.tell-I:clA sI:clA-close SG-door(K)-DEF-clK PPF-sI:clA.tell
          ɩjaw   ɩkambɛnɔɔrɔkɔ.
          ɩ-jaw   ɩ-kambɛn-ɔɔrɔ-kɔ
          sI:1SG-go sI:1SG-close-ɔɔRɔ-I:clK
          'I told him to close the door, and he told me to go and close it myself.'

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[14]On the general question of the relationship between self-intensification and reflexivization in typological perspective, readers are referred to Gast & Siemund (2006), König & Gast (2006), and references therein.

In the case of *rɛg-ɔɔrɔ < rɛg* 'tell', the possibility of a reflexive interpretation is widely attested in our data. In Jóola Fóoñi, as in many other languages, 'think' or 'imagine' can be expressed as lit. 'tell to self', but in (32), the context is hardly compatible with the agent-addressee coreference reading, leaving self-intensification as the only plausible reading.

(32)   *Ʊcɛɛŋɔɔl,   ɔɔ   lɛt   añul,   pan aŋoolɛn*
       ʊ-cɛɛŋ-ɔɔl   Ø-ɔɔ   Ø-lɛt   a-ñul   pan a-ŋɔɔlɛn
       sI:2SG-ask-I:clA clA-PRO sI:clD-not.to.be SG-child(A) FUT sI:clA-be.able
       arɛgɔɔrɔ.
       a-rɛg-ɔɔrɔ
       sI:clA-tell-ɔɔRɔ
       'Ask him, he is not a child, he will be able to tell (it) himself.'

Examples (33–36) provide further illustrations of the role of the context in the interpretation of *-ɔɔrɔ* as expressing autobenefaction or self-intensification of the subject.

(33)   a. *Anaw,   tanɔɔsan ʊlakɔɛ,   ñɛs man*
           an-a-w   t-anɔɔsan ʊ-lakɔ-ɛ   ñɛs man
           person(A)-DEF-clA clT-any   sI:2SG-be-ACT$_0$ try CSC
           ukaanɔɔrɔ   karɛɛs   kajakɛ.
           ʊ-kaan-ɔɔrɔ   ka-rɛɛs   k-a-jak-ɛ
           sI:2SG-make-ɔɔRɔ SG-name(K) clK-PTCP-be.good-ACT$_0$
           'Wherever you may be, try to build a good reputation (for yourself).'

      b. *Nan ʊbajʊt   arambɛna,   fɔk   ʊkaanɔɔrɔ*
           nan ʊ-baj-ʊt   a-rambɛna   fɔk   ʊ-kaan-ɔɔrɔ
           if   sI:2SG-have-NEG SG-helper(A) OBLG sI:2SG-make-ɔɔRɔ
           bʊrɔkab   buya.
           bʊ-rɔk-a-b   b-uya
           SG-work(B)-DEF-clB clB-your
           'If you have nobody to help you, you must do your work yourself.'

(34)   a. *Fɔk   ɩñɛsɔɔrɔ   asɛɛk.*
           fɔk   ɩ-ñɛs-ɔɔrɔ   a-sɛɛk
           OBLG sI:1SG-look.for-ɔɔRɔ SG-woman(A)
           'I must look for a wife (for) myself.'

b. *Ampaɔm   naanɛ   man añɛsɔm*
a-mpa-ɔm   n-aanɛ   man a-ñɛs-ɔm
sG-father(A)-I:1sG ppF-sI:clA.say csc sI:clA-look.for-I:1sG

asɛɛk,   barɛ inje   nɛɛnɔɔ   pan
a-sɛɛk   barɛ inje   n-ɛɛn-ɔɔ   pan
sG-woman(A) but 1sG.PRO PPF-sI:1sG.say-I:clA FUT

ιñɛsɔɔrɔ.
ι-ñɛs-ɔɔrɔ
sI:1sG-look.for-ɔɔrɔ

'My father said he would look for a wife for me, but I told him that I will look for (a wife) myself.'

(35) *Nan   asɛɛkɔm   ʋsumutum,   inje*
n-an   a-sɛɛk-ɔm   ʋ-sumut-u-m   inje
clN-REL sG-woman(A)-I:1sG sI:clA-be.sick-EP-ACT$_1$ 1sG.PRO

kʋsiilooro.
kʋ-siil-ooro
INF(K)-cook-ɔɔrɔ

'When my wife is sick, I do the cooking myself.'

(36) *Elʋʋpɛɣ   yati   ιñaam   umbʋ, inje*
ɛ-lʋʋp-ɛ-y   y-atι ιñaam   ∅-umbʋ inje
sG-house(E)-DEF-clE clE-GEN mother(A) clA-my 1sG.PRO

ιtɛɛpɔɔrɔɛyɔ.
ι-tɛɛp-ɔɔrɔ-ɛ-yɔ
sI:1sG-build-ɔɔrɔ-COMPL-I:clE

'My mother's house, I built it myself.'

However, it may also happen that the lexical meaning of the verb helps to solve the ambiguity. For exemple *manj-ɔɔrɔ* < *manj* 'know' may be used with the reflexive reading 'know oneself', but in (37), the presence of a complement clause excludes this possibility, and the self-intensification reading is the only one really available, since semantically, an autobenefactive interpretation is difficult to imagine.

(37) *Inje   nιmanjɔɔrɔmanjɔɔrɔ   man   ιjɛɛm*
inje   n-ι-manj-ɔɔrɔ-manjɔɔrɔ   m-an ι-ja-ɛ-m
1sG.PRO PPF-sI:1sG-know-ɔɔrɔ-RDPL clM-REL sI:1sG-go-ICOMPL-ACT$_1$

b'ɛɛkaanɛy.

bɛɛ	ɛ-kaan-ɛ-y
ALL	INF(E)-do-DEF-clE

'I myself know how I will do (that).'

4.2.6 The lexicalization of *ɔɔrɔ*-derivates

As a rule, *ɔɔrɔ*-derivates are semantically transparent. In this respect, *-ɔɔrɔ* behaves very differently from the other two suffixes involved in the expression of reflexivization, which have a marked tendency toward lexicalization.

There are, however, a few *ɔɔrɔ*-derivates with a lexicalized meaning. For example, *sɔf-ɔɔrɔ* is attested with two meanings, 'strive to do s.th.' and 'keep from doing s.th.', which cannot be straightforwardly predicted from the meaning of the base verb *sɔf* 'catch', although it is not very difficult to imagine how they developed from 'catch self'.

Tɛb-ɔɔrɔ 'invite oneself' (in the sense of 'go s.wh. without having been called') < *tɛb* 'carry' is another example of lexicalization of an *ɔɔrɔ*-derivate.

4.3 Reflexive and non-reflexive uses of *-ɔ*

4.3.1 The reflexive use of *-ɔ* with body-care verbs

As already illustrated by (21) (reproduced here as 38), the verbal suffix *-ɔ* is used to express a reflexive meaning with body-care verbs, if no particular body part is mentioned and the object represents the person affected by the action (for body-care verbs with a body-part noun in object role, see §3).

(38) a. *Nan   alaañʊlɔm   bʊtab,*

n-an	a-laañ-ʊlɔ-m	b-ʊt-a-b
clN-REL	sI:clA-return-VEN-ACT$_1$	SG-rice.field(B)-DEF-clB

asɛɛkaw   napɔs   añʊlaw.

a-sɛɛk-a-w	n-a-pɔs	a-ñʊl-a-w.
SG-woman(A)-DEF-clA	PPF-sI:clA-wash	SG-child(A)-DEF-clA

'After returning from the rice field, the woman washed the child.'

   b. *Nan   alaañʊlɔm   bʊtab,*

n-an	a-laañ-ʊlɔ-m	b-ʊt-a-b
clN-REL	sI:clA-return-VEN-ACT$_1$	SG-rice.field(B)-DEF-clB

> *asɛɛkaw*   *napɔsɔ.*
> a-sɛɛk-a-w   n-a-pɔs-ɔ
> sg-woman(A)-def-clA ppf-sI:clA-wash-ɔ
> 'After returning from the rice field, the woman washed (herself).'

In our data, the reflexive use of *-ɔ* with body-care verbs is attested by the verbs listed in Table 4.

Table 4: Body-care verbs attesting the reflexive use of *-ɔ*

Reflexive verb	Base verb
bʊŋ-ɔ 'braid (self)'	*bʊŋ* 'braid (s.th., or s.o. else)'
ciik-o 'shave (self)'	*ciik* 'shave (s.th., or s.o. else)'
kaan-ɔ 'put (clothes) on self'	*kaan* 'put (clothes) on s.o. else'
kɔk-ɔ 'tie cloth around the waist'	*kɔk* 'tie (s.th.)'
ñaaw-ɔ 'bathe (self)'	*ñaaw* 'bathe (s.o. else)'
pɔs-ɔ 'wash (self)'	*pɔs* 'wash (s.th., or s.o. else)'

In all cases, it is also possible to have *-ɔɔrɔ* instead of *-ɔ*, as in (39).

(39) *Añulaw*   *nɐrindiiŋ*   *tembe yatι*
      a-ñul-a-w   n-ɐ-rin-diiŋ   tembe y-atι
      sg-child(A)-def-clA ppf-sI:clA-reach-rdpl time(E) clE-gen

      kapɔsɔɔrɔ.
      ka-pɔs-ɔɔrɔ
      inf(K)-wash-ɔɔʀɔ
      'The child is old enough to be able to wash himself.'

The use of *-ɔɔrɔ* instead of *-ɔ* adds to the reflexive meaning an intensifying nuance. Consequently, a possible analysis is that *-ɔ* is still present underlyingly, but for phonetic reasons, the addition of *-ɔɔrɔ* to mark self-intensification of the subject makes it invisible.

4.3.2 The reflexive use of *-ɔ*: isolated cases

In addition to body-care verbs, for which the suffixation of *-ɔ* is the regular and semantically unmarked way to encode subject-object coreference, *-ɔ* is used in reflexive function, without any obvious explanation, in the two verb pairs given in Table 5, one of which is formally an equipollent pair.

There may be other similar cases, but these are the only ones we came across.

Table 5: Other verbs attesting the reflexive use of *-ɔ*

Reflexive verb	Corresponding non-reflexive verb
lɪb-ɔ 'cut self'	*lɪb* 'cut'
rɔɔk-ɔ 'carry on one's head'	*rɔɔk-ɛn* 'load s.th. onto s.th.'

4.3.3 The quasi-reflexive use of *-ɔ*

Jóola Fóoñi has several verbs of spontaneous motion that are formally related to a verb of caused motion in one of the following two ways:

- either the spontaneous-motion verb derives from the caused-motion verb via the addition of *-ɔ* (Table 6),

- or the spontaneous-motion and caused-motion verbs share a root not attested by itself as a verb stem, the spontaneous-motion verb being derived from this root via the addition of *-ɔ*, and the caused-motion verb via the addition of the causative suffix *-ɛn* (Table 7).[15]

Table 6: Spontaneous-motion verbs derived from the corresponding caused-motion verb via the addition of *-ɔ*

Spontaneous-motion verb	Caused-motion verb
fim-o 'turn over on one's stomach'	*fim* 'turn over (pot)'
jup-o 'embark'	*jup* 'load s.th.up, insert into'
lak-ɔ 'sit down'	*lak* 'put (a pot) on the fire'
rup-o 'emerge from'	*rup* 'pull s.th. up'
wɛɛt-ɔ 'lie on back'	*wɛɛt* 'spread out'

This use of *-ɔ* can be deemed QUASI-REFLEXIVE, since the relationship between caused motion and spontaneous motion shares important characteristics with the relationship between two-participant events and the corresponding reflexive events, but nevertheless differs from it in some respects. For example, a person who is standing up cannot be described as performing on him/herself the

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[15]In the case of *wal-ɛn* 'set down', it is interesting to observe the contrast between *wal-ɔ* 'get down' and *wal-ɛn-ɔɔr* lit. 'bring self down' > 'humble self', as in (25).

Table 7: Spontaneous-motion verbs marked by *-ɔ* corresponding to caused-motion verbs marked by *-ɛn*

Spontaneous-motion verb	Caused-motion verb
fint-ɔ 'lie down'	*fint-ɛn* 'make lie down'
ñɪt-ɔ 'climb'	*ñɪt-ɛn* 'hoist up'
pan-ɔ 'move aside (intr.)'	*pan-ɛn* 'move aside (tr.)'
tink-o 'lean (intr.)'	*tink-en* 'tilt, bow'
wal-ɔ 'get down'	*wal-ɛn* 'set down'
yɪt-ɔ 'get up, stand up'	*yɪt-ɛn* 'lift s.th. up'

same action as when raising another person or an object. However, the use of lit. 'raise oneself' in the sense of 'stand up' is attested in a number of unrelated languages, and this extension of reflexive marking to verbs of spontaneous motion has a clear semantic motivation in that a person who is standing up is the instigator of an event whose manifestations concern exclusively his/her own body.

This can be captured by introducing the notion of QUASI-REFLEXIVITY (or AUTOCAUSATIVITY in Geniušienė's (1987) terminology) for the following type of relationship between verbs encoding one- and two-participant events:

- the action performed by the unique participant in the one-participant event manifests itself in the same way and has the same result as if it were the affected participant in the two-participant event;

- the unique participant in the one-participant event acts consciously and voluntarily, but in a way that cannot be assimilated to the action performed by the agentive participant in the two-participant event.

In addition to the motion verbs listed above, the use of *-ɔ* in the verb pairs in Table 8 meets the definition of quasi-reflexivity.

Table 8: Quasi-reflexive uses of *-ɔ* with verbs that are not motion verbs

Quasi-reflexive verb	Base verb
yɔf-ɔ 'hide self'	*yɔf* 'hide s.th. or s.o.'
yokul-o 'take a rest'	*yokul* 'allow s.o. to rest'

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4.3.4 The decausative use of -ɔ

As illustrated by the verb pairs in Table 9, in addition to its reflexive and quasi-reflexive use, the verbal suffix -ɔ is fully productive in decausative (or 'anti-causative') function.

Table 9: Examples of verbs attesting the decausative use of -ɔ

Decausative verb	Base verb
bɛmbul-o 'open (intr.)'	*bɛmbul* 'open (tr.)'
bɛnɛn-ɔ 'increase (intr.)'	*bɛnɛn* 'increase (tr.)'
fʊm-ɔ 'break (intr.)'	*fʊm* 'break (tr.)'
gumbul-o 'diminish (intr.)'	*gumbul* 'diminish (tr.)'
jɪs-ɔ 'tear (intr.)'	*jɪs* 'tear (tr.)'
liw-o 'wake up'	*liw* 'wake s.o. up'
loopul-o 'come off'	*loopul* 'take off'
etc.	

In Jóola Fóoñi, -ɔ is not used productively in passive or resultative function, but it is possible to find sporadic cases of transitive verbs whose ɔ-derivate has a passive or resultative rather than decausative meaning. Those we came across are listed in Table 10.

Table 10: Verbs attesting a passive or resultative use of -ɔ

Passive or resultative verb	Base verb
wot-o 'be known'	*wot* 'know'
kʊr-ɔ 'be well-mannered'	*kʊr* 'educate'
yab-ɔ 'get married (speaking of a woman)'	*yab* 'marry'

4.3.5 Lexicalized uses of -ɔ

The lexicalization of ɔ-derivates can be illustrated by the verb pairs in Table 11.

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Table 11: Examples of verbs attesting lexicalized uses of *-ɔ*

Lexicalized derivate	Base verb
baj-ɔ 'exist' or 'have time'	*baj* 'have'
jam-ɔ 'be famous'	*jam* 'hear'
bɔl-ɔ 'burn self'	*bɔl* 'grill, roast'
kɔk-ɔ 'be unlucky'	*kɔk* 'tie s.th. up'
etc.	

4.4 Reflexive and non-reflexive uses of *-ɔɔr*

4.4.1 The reflexive and quasi-reflexive use of *-ɔɔr*

The reflexive use of *-ɔɔr* has been illustrated by (22), reproduced here as (40).

(40)   a.   *Ŋar   fʊmbanjaf   man uguuy   añʊlaw.*
           ŋar   fʊ-mbanj-a-f   man u-guuy   a-ñʊl-a-w
           take sG-blanket(F)-DEF-clF CSC sI:2sG-cover sG-child(A)-DEF-clA
           'Take the blanket and cover the child (with it).'

       b.   *Ŋar   fʊmbanjaf   man uguuyoor.*
           ŋar   fʊ-mbanj-a-f   man u-guuy-oor
           take sG-blanket(F)-DEF-clF CSC sI:2sG-cover-ɔɔR
           'Take the blanket and cover yourself (with it).'

However, *-ɔɔr* is used only marginally as a reflexive marker, and the possibility of marking subject-object coreference by means of *-ɔɔr* (rather than *-ɔɔrɔ* or *-ɔ*) can only be analyzed as a lexically specified property of a handful of verbs that do not constitute a natural semantic class. In all cases, the *ɔɔr*-verb can also express a reciprocal meaning. We also came across an equipollent pair in which the *ɔɔr*-verb has a reflexive meaning, and three pairs in which the use of *-ɔɔr* can be analyzed as quasi-reflexive (a type of meaning more commonly encoded by means of the suffix *-ɔ* – see §4.3.3). The list of the *ɔɔr*-verbs attested with a reflexive or quasi-reflexive meaning in our data is given in Table 12.

In the case of *sɔntɛn* 'heal s.o.', the addition of *-ɔɔr* gives a reflexive-causative meaning (*sɔntɛn-ɔɔr* 'get treatment for self', cf. French *se faire soigner*), whereas the plain reflexive meaning 'heal self' is regularly expressed as *sɔntɛn-ɔɔrɔ*. Our data include no other verb with the possibility of a similar contrast between *-ɔɔr* and *-ɔɔrɔ*.

Table 12: Reflexive or quasi-reflexive *ɔɔr*-verbs

Reflexive or quasi-reflexive *ɔɔr*-verb	Corresponding non-reflexive-verb
guuy-oor 'cover self'	*guuy* 'cover s.o. or s.th.'
kɔf-ɔɔr 'scratch self'	*kɔf* 'scratch s.o.'
kɔɔrɛn-ɔɔr 'heal self with inhalation'	*kɔɔrɛn* 'smoke an enclosed place'
naan-ɔɔr 'smear one's body'	*naan-ɛn* 'smear'
bɔɔñ-ɔɔr 'curl up'	*bɔɔñ* 'roll up, fold up'
raaw-ɔɔr 'stretch self (arms, legs, etc.)'	*raaw* 'stretch'
tiiw-oor 'turn self over, turn self around'	*tiiw* 'turn s.th. over, turn s.th. around'

4.4.2 Other uses of *-ɔɔr*

As illustrated in (41), *-ɔɔr* is fully productive as a reciprocal marker.

(41) a. *Nan   asaafolim,   naanoli: "Mɪyʊʊ*
          n-an   a-saaf-oli-m   n-aan-oli   mɪyʊʊ
          clN-REL sI:clA-greet-I:1PL.EXCL-ACT$_1$ PPF-sI:clA.say-I:1PL.EXCL 2PL.PRO

          bɛy   jɪjɛɛ   bɛɛt?"
          b-ɛy   jɪ-ja-ɛ   bɛɛt
          clB-which sI:clJ-go-ACT$_0$ ALL
          'After greeting us, he asked us: "Where are you going?"'

      b. *Nan   ʊsaafoorʊm,   naanɔm:*
          n-an   ʊ-saaf-ɔɔr-ʊ-m   n-aan-ɔm
          clN-REL sI:1PL-greet-ɔɔR-EP-ACT$_1$ PPF-sI:clA.say-I:1SG

          "Karɛɛsɪ   bʊʊ?"
          ka-rɛɛs-ɪ   bʊʊ
          SG-name(K)-I:2SG how
          'After we greeted each other, he asked me: "What's your name?"'

The form *-ɔɔr* is also productively used with intransitive verbs to express joint action (as in *jaw-ɔɔr* 'go together' < *jaw* 'go', or *cɪn-ɔɔr* 'live together as neighbors' < *cɪn* 'live at a place').

Finally, the suffix *-ɔɔr* distinguishes itself by the very high proportion of lexicalized verb pairs in which a verb which seems to have been derived via the addition of *-ɔɔr* expresses a meaning whose relationship to that of the base verb is more or less opaque in the present state of the language (see Table 13).

Table 13: Examples of verbs attesting lexicalized uses of *-ɔɔr*

Lexicalized derivate	Base verb
baj-ɔɔr 'be in conflict'	*baj* 'have'
gam-ɔɔr 'lament'	*gam* 'advise'
gɔr-ɔɔr 'move (intr.)'	*gɔr* 'touch'
kaan-ɔɔr 'quarrel'	*kaan* 'do, make'
etc.	

4.5 Summary

Table 14 summarizes the possible uses of the three verbal suffixes of Jóola Fóoñi variously involved in the coding of reflexivization:

Table 14: The possible uses of *-ɔɔrɔ*, *-ɔ* and *-ɔɔr*

	-ɔɔrɔ	*-ɔ*	*-ɔɔr*
reflexive (other than body care)	+	(+)	(+)
reflexive (body care)	−	+	−
quasi-reflexive	−	+	(+)
decausative	−	+	−
passive, resultative	−	(+)	−
reciprocal	−	−	+
joint action	−	−	+
self-intensification	+	−	−

5 Reflexivization and self-intensification

As already discussed above, Jóola Fóoñi has the cross-linguistically exceptional particularity of marking self-intensification of the subject by means of a verbal suffix also acting as a reflexive voice marker.

Jóola Fooñi also has free forms available to express self-intensification of NPs irrespective of their syntactic role, but our data include no example in which one of these self-intensifiers, either alone or combined with a pronoun, could be analyzed as acting as a reflexive pronoun.

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5.1 The adnominal self-intensifier *faŋ*

Jóola Fooñi has a noun *f-aŋ* (gender F/K), glossed 'personnalité, le moi/personal-
ity, the self' in Sapir et al.'s (1993) Jóola-French-English dictionary, which is the
obvious source of the adnominal self-intensifier *faŋ* illustrated in (42). Note that
faŋ as an adnominal self-intensifier is optionally suffixed by an index resuming
the noun or pronoun it intensifies.[16]

(42) a. *Kuliinool   kɔɔkʊ   dɩ*
          ku-liin-ool   k-ɔɔ-kʊ   dɩ
          PL-different.sex.sibling(BK)-I:clA clBK-LCOP-clBK PREP

          bulokɐb,   ampaɔɔl   ɔɔmʊ   dɩ
          bu-lok-ɐ-b   ampa-ɔɔl   Ø-ɔɔ-mʊ   dɩ
          SG-tears(B)-DEF-clB father(A)-I:clA clA-LCOP-clA PREP

          bulokɐb,   ɔɔ   faŋɔɔl   Inaa ɔɔmʊ   dɩ
          bu-lok-ɐ-b   Ø-ɔɔ   faŋ-ɔɔl lnaa Ø-ɔɔ-mʊ   dɩ
          SG-tears(B)-DEF-clB clA-PRO self-I:clA Inaa clA-LCOP-clA PREP

          bulokɐb.
          bu-lok-ɐ-b
          SG-tears(B)-DEF-clB

          'Her brothers are in tears, her father is in tears, and Inaa herself is in
          tears.'

      b. *Inje   faŋ, mɔɔ   nilɐkoumum   taatɛ.*
          inje   faŋ m-ɔɔ   n-i-lɐko-um-u-m   t-aa-t-ɛ
          1SG.PRO self clM-PRO PPF-sI:1SG-stay-APPL-EP-ACT₁ clT-DEM-clT-PROX

          'As for myself, this is why I stayed here.'

      c. *Ʊjɔɔnɛn ʊwʊ   jak, jakʊm ʊgaalɛn   an,   jakʊm*
          ʊ-jɔɔnɛn ʊ-wʊ jak jakʊm ʊ-gaalɛn   an   jakʊm
          sI:2SG-fix clU-DEM well PROH sI:clU-disturb person(A) PROH

          ʊgaalɛn   aw   faŋɩ.
          ʊ-gaalɛn   aw   faŋ-ɩ
          sI:clU-disturb 2SG.PRO self-I:2SG

          'Fix that properly, so that it doesn't disturb anybody, and it doesn't
          disturb yourself.'

Interestingly, in (42c), in spite of the fact that the subject index of class U is
homonymous with the subject index of 2nd person singular, a reflexive interpre-

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[16]The optional suffixation of indexes is also found with other adnominal particles such as *cɛb*
'only' or *buroom* 'all'.

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tation of *jakɔm ʋgaalɛn aw faɲɩ* (that is, 'don't disturb yourself') is excluded, since if it were the case, the verb form should include the suffix *-ɔɔrɔ*.

5.2 The noun *fu-ko* 'head' in self-intensifier function

In Jóola Fóoñi, the noun *fu-ko* 'head' has a grammaticalized use as an adnominal self-intensifier. In this use, *fu-ko* obligatorily combines with an index resuming the noun or pronoun it intensifies, and may optionally be introduced by the comitative-instrumental-locative preposition *dɩ*.

Among Atlantic languages, it is common that the noun 'head' combined with a possessive index or pronoun acts not only as a self-intensifier, as in (43a),[17] but also as a reflexive pronoun, as in (43b).

(43)   Wolof (Atlantic)

    a.   *Waxal   ko   sa   bopp!*
           wax-al ko   sa   bopp
           say-ɪᴍᴘ I:3 sɢ ᴘᴏss.2sɢ head(B)
           'Say it yourself.'

    b.   *Wuude   bi   du   ëwal*
           wuude   b-i   du   ëw-al
           shoemaker(B) clB-ᴅᴇꜰ.ᴘʀᴏх ɴᴇɢ.sI:3sɢ sew.leather-ᴀᴘᴘʟ
           boppam.
           bopp-am
           head(B)-I:3sɢ
           'The shoemaker does not sew leather for himself.'

The case of Jóola Fooñi is very different, since '*fu-ko* 'head' + possessive index or pronoun' in its grammaticalized use can only occur as an emphatic self-intensifier, never as a reflexive pronoun. In all the examples we have in our data, '*fu-ko* 'head' + possessive index or pronoun' combines with a verb form marked by the suffix *-ɔɔrɔ* in self-intensifying function, and just adds some additional emphasis, as in (44b).

(44)   a.   *Ɉaw usiilooro!*
          jaw u-siil-ooro
          go   sI:2sɢ-cook-ɔɔʀɔ
          'Go and do the cooking for yourself!' (autobenefaction)
          or 'Go and do the cooking yourself!' (self-intensification)

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[17]The two sentences quoted in (43) are from Diouf's (2003) Wolof-French dictionary.

b. *Ɉaw usiilooro   fukoi!*
    jaw u-siil-ooro   fu-ko-i
    go   sI:2sɢ-cook-ɔɔʀɔ sɢ-head(F)-I:2sɢ
    'Go and do the cooking YOURSELF!' (emphatic self-intensification)

c. * *Ɉaw usiil   fukoi!*
    jaw u-siil   fu-ko-i
    go   sI:2sɢ-cook-ɔɔʀɔ sɢ-head(F)-I:2sɢ

6 Conclusions

In this article, basing ourselves on a corpus of naturalistic texts of various genres completed by elicitation because of the relative scarcity of reflexive constructions in the corpus, we have analyzed the way Jóola Fóoñi codes coreference within the clause, as well as the non-reflexive uses of the verbal suffixes that have the ability of acting as reflexive voice markers. The main conclusions are as follows:

- Jóola Fóoñi does not have reflexive pronouns or indexes.

- Subject-object coreference requires verbal marking by means of derivational suffixes that reduce by one the number of objects compatible with the verb and imply that a single participant, encoded as the subject, cumulates the semantic roles assigned to the subject and (one of) the object(s) in the construction of the base verb.

- Due to the extensive use of multiple-object constructions, and to the fact that beneficiaries as simply coded as objects, in Jóola Fóoñi, agent-goal coreference and agent-beneficiary coreference are just particular cases of subject-object coreference.

- Coreference relationships within the clause other than subject-object coreference are not treated differently from coreference in discourse.

- Three verbal suffixes may be found in constructions in which they act as reflexive voice markers, but all three also have non-reflexive uses: *-ɔɔr*, whose use in reflexive constructions is marginal, is productively used as a reciprocal voice marker; *-ɔ*, used as a reflexive voice marker with body-care verbs, is also productive in quasi-reflexive (or auto-causative) and decausative function; *-ɔɔrɔ*, analyzable as the default reflexive voice marker, is also fully productive as a marker of self-intensification of the subject.

- Jóola Fóoñi shows that the co-expression of self-intensification and reflexivization, very common cross-linguistically for free self-forms, may also characterize verbal derivational suffixes.

Acknowledgments

Abbreviations

This chapter follows the Leipzig Glossing Rules (Comrie et al. 2008). Additional abbreviations used are:

ACT	actualizer	OBLG	obligative
clX	class X	PPF	pre-prefix
CSC	consecutive	PREP	preposition
EP	epenthetic vowel	PRO	pronoun
HYP	hypothetical	RDPL	reduplicative suffix
I	index (other than subject index cf. sI)	REL	relativizer
		SEQ	sequential
ICOMPL	incompletive	sI	subject index
LCOP	locational copula	VEN	ventive

Capital letters between parentheses immediately after the lexical gloss of nouns (for example, 'woman(A)', or 'dog(E)') or after the gloss INF ('infinitive') indicate the agreement pattern associated to the form in question.

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