

Anaphora in the African Languages - Questionnaire

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PART 2 An inventory of reflexive and reciprocal strategies

In this section, we compile an inventory of strategies for coreference in your language. At this point we are only attempting to get a brief overview of the strategies and so we only want from you a few exemplars of each strategy. The properties of each strategy will be investigated in more detail in the following sections.

By the end of this section you should have a small number of sentences, each of which uses a different way to express a reflexive relationship. For English, for example, we might get John saw himself, and John washes as two forms of the reflexive strategy (where the second is more lexically restricted) and one form for the reciprocal strategy The children like each other.

Pay special attention to parts of a strategy that appear to be optional. In such cases you should list two strategies, one with and one without the "optional" element.

For example, Javanese has two reflexive constructions, awak + pronoun + dewe and awak + pronoun. It would be incorrect to treat them as a single construction in which dewe is optional: on close inspection the two forms turn out to have very different properties. Hence, any "optional" elements in your language should be studied under the assumption that we are dealing with different strategies.

2.1 Coreference in a single clause

2.1.1 "Primary" reflexive strategy - Translate the following example to your language, and indicate the element (if any) that expresses the reflexive relationship. If the verb see is somehow unusual in your language, use a more typical transitive verb instead.

1a) Jôn à m̄ ye zhì nyor
Jôn C1.3SG.SM PST3 see C1.3SG.POSS.PRN body.
John saw his body.
John saw himself.

KS: I have a general question about the gloss for pronominal possessives – is there any reason to assume that they are adjectival? I notice that the POSS here is c1, whereas when the antecedent is plural, the POSS agrees with c6 for ‘bodies’.

1b) Jôn à m̄ ye nyor zhì
Jôn C1.3SG.SM PST3 see body C1.3SG.POSS.FOC.PRN.
John saw his body.
John saw himself.

Comment: The translation reflects some semantic meaning as to “see physically” which can be contrasted with “see psychologically” as in (1c).

Comment: Note that there is a discrepancy with the Subject marker (SM) as they don’t match with the noun class distinction especially when preceded by personal pronouns or some plural nouns. The class distinction can be easily done with possessive adjectives and other possessives.

1c) Jôn à m̄ ye zhii tu njep ŋge’.
John C1.3SG.SM PST3 see C1a.3SG.POSS.PRN head PREP trouble.
John saw himself in trouble.

Comment: The translation in 1c is different from the body-part usage in 1b. The translation reflects a semantic meaning to “see psychologically” which can be contrasted with “see physically” as in (1b):

1d) Jôn à m̄ ye nyor nje rcerlir.
John C1.3SG.SM PST3 see body PREP mirror.
John saw his body in a mirror.
John saw himself in a mirror.

Comment: This shows that the possessor can be omitted and the reading can still be reflexive.

KS: When the possessive morpheme is omitted, can the understood possessor be someone other than the subject?.

2.1.2 Is there another way, or are there other ways, to express coreference in A1 (that is, with the verb see held constant)? If so, give examples of their use now, and label them (use Strategy B, C, or choose your own labels). For example, in German both Hans und Maria sehen sich and

Hans und Maria sehen einander are possible with a reciprocal reading (although the sich strategy also allows a reflexive reading). Hold off on presenting reciprocal strategies - we have a special section for that.

2a) Jôn à m̄ ye nè li r̄lir.
 Jôn à m̄ ye nè li r-lir.
 John C1.3SG.SM PST3 see PREP C5.3SG.POSS.PRN C5-eye.
 John saw (it) himself.

2b) Jôn à m̄ ye nè mi m̄mir
 Jôn à m̄ ye nè mi mm-ir
 John C1.3SG.SM PST3 see PREP C6.3SG.POSS.PRN C6-eyes.
 John saw (it) himself.

Comment: The reflexive is done with the use of the body part where the object is implied in the sense that another subject(s) is excluded from participating in the action.

KS: Would it be correct to say that in these cases, the reading is adverbial, since what John sees is not himself, but whatever he sees, he sees it exclusively?

2.1.3 Other verb types - Do any of the following (or any other verbs you can think of) involve a strategy that you have not listed already? If so, give an example now and label it with a new name (or letter).

3a) Jôn ke sù'si nyor
 John ASP.HAB wash body
 John washes himself.

3b) Jôn ke sù'si zhii nyor
 John ASP.HAB wash C1.3SG.POSS.PRN body
 John washes himself.

KS: When you consider other verbs that are not 'self-directed', as washing can be, is there a difference in the ability to omit the possessive pronominal adjective? So, for example, when 'kill' is used in a reflexive sentence, can it appear in a sentence like (3a) in place of 'wash' as easily as it appears with (3b)? Maybe you address this later, but it something I would like to explore if there is such a difference, and in particular, I would want to have, if (3a) is limited to a subset of potentially transitive verbs, a list of those verbs.

FN: When I consider other verbs, the possessive pronominal adjective can be left out except when the object is possessed by the subject. For a verb like kill, the reflexive sentence will appear with the use of the body part 'hand'. KS: If John kills himself, he presumably does not kill his hand, but he may do it himself. Would we see 'John kill his head his hand'?

3c) Jôn ke sù'si nyor zhii
 John ASP.HAB wash body C1.3SG.POSS.FOC.PRN
 John washes himself(not another).

3d) Jôn ke sù'si zhii nyor nè zhii bo.
 John ASP.HAB wash C1a.3SG.POSS.PRN body PREP C1a.3SG.POSS.PRN hand
 John washes himself (without the help of another)

Comment: Limbum construction for exclusive subject is truly grammaticalised and not comparable to the English expression *with my own hands* which can also be used to mark exclusive subject, as can *with my own eyes* when sight is involved. Limbum had taken such a construction a few steps further in that it can be used for in principle with every action and as a consequence, there is a default body part 'hand' for when no obvious body part is involved.

4a) Meri à lee ε
 Mary C1.3SG.SM cut vowel echo
 Mary cut herself. [accidentally]

4b) Meri à lee nyor.
 Mary C1.3SG.SM cut body
 Mary cut herself. [accidentally]

4c) Meri à see nyor
 Mary C1.3SG.SM cut body
 Mary cut herself. [accidentally with a small instrument]

4d) Meri à gwàr nyor.
 Mary C1.3SG.SM cut body
 Mary cut herself. [accidentally with a big instrument]

Comment: (4c, d) can occur with possessive adjectives when the action is not accidental.

5a) Rìtu zhi ce koo Jôn.
 Shame C7.3SG.SM ASP.CONT catch John.
 John is ashamed of himself.

5bi)? Rìtu zhi ce koo Jôn nè zhii tu.
 Shame C7.3SG.SM ASP.CONT catch John PREP C1a.3SG.POSS.PRN head
 John is ashamed of himself.

5bii) ** Jôn rìtu zhi ce koo nè zhii tu.
 John shame C7.3SG.SM ASP.CONT catch PREP C1a.3SG.POSS.PRN head
 John is ashamed of himself.

6) Jôn à jepsi zhii tu.
 Jôn à jep-si zhii tu.
 John C1.3SG.SM confuse-CAUS C1a.3SG.POSS.PRN head
 John destroyed himself.

Comment: We cannot omit the possessive pronoun adjective for a reflexive reading. The above meaning gives room for the interpretation that someone or some external circumstances caused John to destroy himself. The addition of the body part ‘hand’ is still possible and it will then mean that John is responsible for his personal destruction.

KS: what is at stake is whether the body part without the possessive is a separate strategy from the body part with the poss-pron-adj. If so, I would say that a verb like 'wash' in Limbum allows these two strategies and some other verbs don't, or perhaps the body part strategy that does not use 'body' but a specific body part cannot omit the poss-pron-adj. As you can see, I am interested in some fine-grained generalizations.

7) Sèc bàni i.
 Sèc bà-ni i.
 3PL.INCL hate-RCM vowel echo
 We hate ourselves.

Comment: The RCM morpheme permits various interpretations but the basic notion is bi-partisan. With some verbs, the morpheme –se is used for multi-party reciprocal action.

KS: There is no SM here?

8a) Woowèc a ke nàa wap btu
 Woowèc a ke nàa wap b-tu
 3PL 3PL.SM ASP.HAB praise C2.3PL.EXCL.POSS.PRN C2-heads
 They praise themselves

Comment: With personal pronouns, it is not possible to group the SMs into noun classes but the possessive pronominal adjectives that modify the object agree with the subject and the object classes. KS: Would it be correct to add that ‘If the subject were a plural like ‘the boys’ then the SM would be c2.’

8b) Woowèc a ke nàani.
 Woowèc a ke nàa-ni
 3PL. 3PL.SM ASP.HAB praise-RCM
 They praise themselves.

KS: Is it possible for this to have a distributed reflexive reading, e.g., each of them saw himself, as opposed to the group reading where the group (‘they’) saw themselves as a group?

2.1.4 Obliques and other argument types - In the preceding examples, the coindexed arguments were subject and object. Many languages use a different coreference strategy for oblique arguments. Does yours? Consider a variety of oblique objects (dative, genitive, etc., as appropriate for your language), as well subcategorized prepositional arguments (e.g., English Karl counted on himself) and finally prepositional adjuncts (e.g., Sally saw a snake near her/herself).

9a) Jôn à de' a Mèrì
 John C1.3SG.SM speak CONJ Mary.
 John spoke to Mary.

KS: Could this be translated as “John spoke with Mary”, or would that be said differently? In English, ‘spoke to’ does not necessarily reply that Mary responded, whereas she can be assumed to be a respondent when it is ‘speak with’.

9c) Jôn à de' Merì.
 John C1.3SG.SM speak Mary
 John scolded Mary.

Comment: The verb meaning changes in accordance with the context.

Strategy already used above for the following:

- b) John spoke about himself. (subject/PP argument)
- c) John told Mary about himself. (same, with intervening NP)
- d) Bill told us about ourselves. (object/argument)

Difficult to translate the following; gave the children herself or themselves?

- e) Mary gave the children themselves. (ind.object/object)

10a) Merì à m̀ ye ɲwà' mbe ɲì ye
 Mary C1.3SG.SM PST3 see book LOC back 3SG.OBJ.PRO
 Mary saw a book behind her (another). (subject/locative)

10b) Merì à m̀ ye ɲwà' mbe yě ɲì
 Mary C1.3SG.SM PST3 see book LOC 3SG.OBJ.POSS back
 Mary saw a book behind her (Mary). (subject/locative)

11a) Jôn à m̀ yuu ɲwà' nè zhii tu
 John C1.3SG.SM 3PST buy book BEN C1a.3SG.POSS.PRN head
 John bought the book for himself. (benefactive)

11b) Jôn à m̀ yuu ɲwà' nè zhii tu-nyor
 John C1.3SG.SM PST3 buy book BEN C1a.3SG.POSS.PRN head-body.
 John bought the book for himself. (benefactive)

Comment: The use of *zhii tu-nyor*, as opposed to *zhii tu*, indicates emphasis.

12a) Ètà kòŋ zhii nyor.
 Etta like C1.3SG.POSS.PRN body
 Etta likes her body.

12b) Ètà kòŋ zhii tu
 Etta like C1a.3SG.POSS.PRN head
 Etta likes herself.

12c) Ètà ke wepsi zhii tu.
 Èta ke wep-si zhii tu.
 Etta ASP.HAB scare-CAUS C1a 3SG.POSS.PRN head
 Etta scares herself.

Comment: KS: Since these two examples are not cases where the body part is part of an adverbial phrase, it is especially interesting that different body parts are used to support the reflexive reading in these two cases. Are these sentences unacceptable if *tu* is used in (12a) and *nyor* is used in (12b)? FN: The meaning in (12a) is geared towards the physic whereas (12b) is geared towards behavior or things that have to do with the mind. Thus they will be unacceptable if there is switch as you have suggested.

12d) Ètà ke fa ɲge' nè zhii tu.
 Etta ASP.HAB give trouble PREP C1a.3SG..POSS.PRN head.
 Etta worries herself.

2.1.5 Person and number - Consider the preceding sentences with first and second person subjects, and also with plurals. Also check for differences between full NPs, overt third person pronouns, and null subjects/objects (if your language allows them). Some of you may speak a language that distinguishes singulars, plurals and duals, and if so, please check for the dual reading. Do any of these allow the use of a strategy we have not yet seen? If so, name each new strategy and give an example here.

13a) Mè m̀ ye nè la rlr.
 Mè m̀ ye nè la r-lir.
 1SG PST3 see PREP C5.1SG.POSS.PRN C5-eye
 I saw myself.

Comment: This means seeing something in the sense that one can give an eye witness account.

13b) Wè lɛɛ ɛ
2SG cut vowel echo
You cut yourself [accidentally].

Comment: KS: Can this verb be used transitively, e.g., 'You cut the tree/the fish'? If this is possible with a direct object, then Limbum has a missing object strategy for this verb, and perhaps there are other verbs for which this is possible.

FN: If this verb is used transitively, the sentence will no longer carry the accidental reading.

13c) Sèè be sù'si visèè mnyor.
Sèè be sù'si vi-sèè m-nyor
1PL.INCL FUT1 wash C6.1PLINCL.POSS.PRN C6-bodies
We will wash ourselves.

13d) Wèè be kù jà' wee btu.
Wèè be kù jà' wee b-tu.
2PL.EXCL FUT1 must help C2.2PL.EXCL.POSS.PRN C2-heads
You must help yourselves.

Comment: Take note of the multi-subject agreement here i.e plural subjects and plural body parts.

2.1.6 Strategies for other clausemate environments - If there are any additional reflexive strategies known to you (from grammars, or from your linguistic knowledge), list them now. Name each new strategy with a short name or label, and give one example.

Take a few minutes to consider other variations on the sentence types which might involve a special strategy. Some possibilities:

(a) Is there any strategy which is only possible with some special aspectual class of a verb? Some examples:

14) Unique emphatic Pronoun

14a) E fà' nsuu mimnji'.
E fà' nsuu mi-mnji'.
3SG work farm 3SG.UNI.EMP
He ploughed the farm alone/himself

14b) Mè koo mamnji'
Mè koo ma-mnji'
1SG catch 1SG.UNI.EMP
I caught (it) alone/myself.

15) Focal Pronouns

15a) E dù zhiiyu
E dù zhii-yu
3SG go 3SG.FOC.PRO
He has gone (him)

15b) Mè zhe yaayu.
Mè zhe yaa-yu
1SG eat 1SG.FOC.PRO
I have eaten ((it) me)

16) Unique acquired possessive pronoun

16a) A yaa mbàa tàra'mè.
Is C7.1SG. POSS.PRN money 1SG.UNI.ACQ.POSS.PRO
It is my personal money.

16b) A yòo ndap tàra'wè a?
Is C1.2SG.POSS.PRN house 2SG.UNI.ACQ.POSS.PRO Q
Is it your personal house?

KS: Another way to phrase this in English would be 'is it your own house?' Would you use this same unique pronoun for something like "the men make their own beer", which would not mean the beer they own, but that the men are the makers of the beer?

17) Anaphoric Relativisers

- 17ai) A rkòŋ cà na a?
 A r-kòŋ cà na a?
 Is C5-spear ANA.DET DEM.PROX Q.
 Is this the spear (you talked about)?
- 17aii) A rce m̀ m̩ yuu nà.
 A r-ce m̀ m̩ yuu nà.
 Is C5.3SG.ANA.REL 1SG. PST2 buy ANA.DET.
 It is the one I bought.
- (17bi) A ma mkuu na wɛɛ.
 A ma m-kuu na wɛɛ.
 Is C6.1SG.POSS.PRN C6-beans DEM.PROX all
 These are all the beans I have.
- (17bii) A mce ẁ m̩ kap ha'ntì nà a?
 A m-ce ẁ m̩ kap ha'ntì nà a?
 Is C6.3PL.ANA.REL 2SG PST3 harvest last week ANA.DET Q,
 Are they those ones you harvested last week?

- 18) Pità rìŋ zhii ndèe
 Peter know C1.3SG.POSS.PRN behavior
 Peter knows himself.
- 19) Pità ke jàasi zhii tu.
 Peter ASP.HAB criticize C1a.3SG.POSS.PRN head
 Peter (habitually) criticizes himself.

KS: Why does the gloss have C1a here instead of C1? FN: Class one nouns are divided into 1 and 1a. There is some tonal differences with the forms.

- 20) Pità be kù nàa zhii tu.
 Peter FUT1 EVI. praise C1a.3SG.POSS.PRN head
 Peter is likely to praise himself.

(b) Do quantificational constructions involve a separate strategy?

Comment: In Limbum, quantificational constructions involve the use of verbal suffixes. In single-argument clauses or intransitive clauses –ŋger and –se are used to mark plurality of subjects or plurality of result on subjects whereas the –shi and –ni suffixes are used for multi-argument or transitive clauses to mark plurality of subjects or plurality of result of action on an object. But, only –ŋger and –shi can sometimes be used in quantificational constructions that produce anaphoric effects.

- 20a) Mmbùu mke'ke' mi b̩'ŋger e.
 Mm-bùu m-ke'ke' mi b̩'-ŋger e.
 C6-eggs C6-small C6.3PL.SM break-INTR.PLU. vowel echo
 The small eggs (two or more) are broken.
- 20b) Rbùu rke' rli b̩'ti i.
 R-bùu r-ke' rlii b̩'-ti i.
 C5-Egg C5-small C5.3PL.SM break-INTR. vowel echo
 The small egg is broken.
- 21a) Mwɛɛ mi ceeshi cè'
 M-wɛɛ mi cee-shi cè'
 C6-cats C6-3PL.SM cut-TRN.PLU. cloth
 The cats have cut the cloth (into more than two pieces).
- 21b) Rwɛɛ rli teni cè'
 R-wɛɛ rli te-ni cè'
 C5-cat C5-3PL.SM cut-TRN.DU cloth
 The cat has cut the cloth (into two pieces).

KS: Is the –ni here the same one that is used for reciprocals?

KS: I would like to see examples like the 'All the men criticized themselves' with the verbal markers you describe.

The following examples cannot reveal quantification in Limbum.

- A7a) Muumbaṅrù wewɛ à kè' zhii tu.
 Boy every C1.3SG.SM look C1a.3SG.POSS.PRN head
 Every boy looked at himself.
- b) Byenṅge wewɛ a suŋ àmbò Jôn nè mò' ba mò'.
 Women all 3PL.SM tell PREP John PREP one CONJ one
 All the women described John to themselves.
- c) Cicà wewɛ à suŋ rli rlii nè Bob.
 Teacher every C1.3SG.SM tell C5.3SG.POSS.PRN name PREP BOB.
 Every teacher introduced himself to Bob.
- d) Boomo' a m̃ ku ja' ba wap btu.
 Boomo' a m̃ ku ja' ba wap b-tu.
 Children INDF 3PL.SM PST3 only help FOC C2.3PLPOSS.PRN C2-heads
 Some children only help themselves.

(c) If your language has a system of grammaticized honorifics, do some types of honorific allow a strategy that has not been listed yet? The Yoruba example below allows several plural interpretations, as given below, but it can also mean "He (honorific) saw himself", although it is not otherwise singular.

- 22a) * Woowèè a m̃ yɛ yàp nyor
 3PL 3PL.SM PST3 see C1.3PL.EXCL.POSS.PRN body
 They saw their body.

Comment: The honorific form woowèè is used when referring to chiefs or kings. **a** can also be used as it is also a subject pronoun.

- 22bi) Woowèè a m̃ yɛ wap mnyor
 Woowèè a m̃ yɛ wap m-nyor
 3PL. 3PL.SM PST3 see C6.3PL.INCL.POSS.PRN C6-bodies
 They saw themselves.

Comment: The honorific form woowèè is used when referring to chiefs or kings. **a** can also be used as it is also a subject pronoun.

KS: If the subject were the noun phrase "the chief", would the *a* still be used as the SM? If so, is the *c6* possessive still used?

- 22bii)? Woowèè a m̃ yɛse mnyor
 Woowèè a m̃ yɛ-se m-nyor
 3PL. 3PL.SM PST3 see-PLU.RCM C6-bodies
 They saw themselves.

Comment: KS: Is *-se* the plural form of the reciprocal? Is it then the presence of *m-nyor* that makes the reflexive reading possible?

FN. Is *-se* is the plural form of the reciprocal when reference is made to more than two subjects. It is the presence of the *-se* that makes reflexive reading possible.

KS: But is the reciprocal reading also OK here?

- 22c) Woowèè a m̃ yɛ-ni i.
 Woowèè a m̃ yɛ-ni i
 3PL. 3PL.SM PST3 see-DU.RCM.vowel echo
 They saw each other.

KS: Is it correct to say that this sentence can only refer to a situation where there are just two individuals?

(d) The above were all tensed main clauses. Experiment with placing both coreferring arguments in various types of subordinate clauses, as your language allows. For example, consider tensed complements, subjunctives, infinitivals, purpose clauses, or any other embedding construction your language provides. (But keep both coreferent arguments in the same clause). Only provide examples corresponding to the sentences in A9 if any translation reveals a new strategy (which you should name).

- 23) Sol à làa ene Alis kòŋ zhii tu.
 Sol C1.3SG.SM say 3SG.SP.INTRO Alice love C1a.3SG. POSS.PRNhead

Sol says that Alice loves herself.

- 24) Sol à m̀ r̀ò ene Alis naatu.
 Sol à m̀ r̀ò e-ne Alis naa-tu.
 Sol C1.3SG.SM PST3 require 3SG.COMP Alice praise-head
 Sol required that Alice praise herself.

KS: This looks like yet another strategy, insofar as *naatu* seems to treat the *tu* as either an affix or an incorporated noun. Below in (25b) this verb is also possible with *zhii tu* as the object. Is there a reason for choosing the incorporation strategy over the *zhii tu* strategy? In both (25b) and (27b) you mark these as ? - why do you find you use these forms?

FN: Maybe it is another strategy. The verb *nàatu* – ‘praise oneself’ has the body part *tu* – ‘head’ affixed the verb “raise”. When ‘body’ is affixed to the same verb, it becomes ‘be proud’. I can list a series of verbs whereby body parts are affixed to some root to obtain other meanings. I use the forms in 25b and 27b because *nàa* means praise but it is more appropriate to use *nàatu* for praise onself.

- 25a) Sol à m̀ kwà’ ene Alis à ba nàatu
 Sol à m̀ kwà’ e-ne Alis à ba nàa-tu
 Sol C1.3SG.SM PST3 think 3SG.COMP Alice C1.3SG.SM MOD praise-head
 Sol thought Alice should praise herself.

- 25b) ? Sol à m̀ kwà’ e-ne Alis à ba nàa zhii tu
 Sol C1.3SG.SM PST3 think 3SG.COMP Alice C1.3SG.SM MOD praise C1a.3SG.POSS.PRN head
 Sol thought Alice should praise herself.

- 26) Sol à làa nè Alis e-ne e ce naa-tu.
 Sol C1.3SG.SM say PREP Alice 3SG.SP.INTRO 3SG.ANA.PRO ASP.CONT praise-head
 Sol asked Alice to praise herself.

- 27a) Sol ce k̀òŋ à rnàatu.
 Sol ce k̀òŋ à r-nàa-tu.
 Sol ASP.CONT want INF INF-praise-head
 Sol wants to praise himself.

- 27b) ? Sol ce k̀òŋ à rnaa zhii tu.
 Sol ce k̀òŋ à r-naa zhii tu.
 Sol ASP.CONT want INF INF-praise C1a.3SG. POSS.PRNhead
 Sol wants to praise himself.

- 28) Sol ce k̀è’ ene Alis naatu.
 Sol ce k̀è’ ene Alis naa-tu.
 Sol ASP.CONT expect CONJ Alice praise-head
 Sol expects Alice to praise herself.

- 29) Sol à yu’ àmb̀ò Alis ce nàatu.
 Sol à yu’ àmb̀ò Alis ce nàa-tu.
 Sol C1.3SG.SM hear as Alis ASP.CONT praise-head
 Sol heard Alice praising herself.

2.2 Ordinary (potentially independent) pronouns

Even if pronouns are never used as reflexives, we want to apply the tests of this questionnaire to them as well, since knowing what is not possible is also useful to us. Please test them now in all the local environments, even if they fail, unless you have already named them as a strategy because they succeed in local coreference environments. For this section, please translate all the sentences, indicating the acceptability of the results.

2.2.1 First, show that the pronouns can be independent by using them in a sentence where they do not have an antecedent. In the paradigms below, for example, the first sentence provides a context, and, for A10a,b the pronoun appears in the second sentence without an antecedent in that sentence, but referring to Abraham. The same test is made with first and second person pronouns in (A10c). If it is more convenient for you to construct your own sentences, feel free to do so.

- 30a) E ke zhe baa àmnsòŋ.
 E ke zhe baa à-m-sòŋ.
 3SG ASP.HAB. eat fufu ASSO-C6-teeth
 He eats fufu without stew.
- 30b) Mè m̩ de' wèr Abràham nèŋkùr. E m̩ ye Lela.
 1SG. PST2 speak ASSO Abraham yesterday. 3SG. PST2 see Lela.
 I spoke with Abraham yesterday. He saw Lela.
- 31a) M be f̩ dù ntaa àyàŋse.
 1SG. FUT2 go market tomorrow.
 I will go to the market tomorrow.
- 31b) Abràham yû? M̩ ba ye ye àm̩ ntaa.
 Abraham be where? 1SG. PST1 see 3SG.OBJ LOC market.
 Where is Abraham? I saw him in the market.
- 32a) Wè m̩ ye bii ka' njoke?
 2SG. PST2 see dance NEG Q.
 Why did you not watch the dance?
- 32b) Wèr à ba ye wè. Wè ba ye m̩/ wèr a?
 1PL 1PL.SM PST1 see 2SG. 2SG. PST1 see 1SG /1PL Q
 We saw you. Did you see me/us?

Comment: Limbum pronouns are independent.

2.2.2 If your language has more than one type of pronouns (e.g., null, clitic and non-clitic pronouns, strong, or stressable pronouns, etc.), list each type with examples. It is helpful for us to have full paradigms for subject, object and indirect object pronouns (only if indirect object pronouns are different from object pronouns) as well as possessive pronouns and pronouns in prepositional phrases. Keep in mind that pronouns and agreement are not always easy to distinguish when the pronoun is mixed in with the verb morphology. Some languages will have an agreement morpheme that can cooccur with a pronoun in subject or object position, and in some cases the pronoun (or any full noun phrase) and the agreement are mutually exclusive. Please inform us as to the situation in your language for each argument position (subject, object, indirect object, possessive, prepositional object...)

33) Personal Pronouns

1SG	m̩, 'mè	I/me
2SG	à, wè	you
3SG	e, ye	she/he/her/him
1PL	wèr	we/us
2PL	wèe	you
3PL	Woowèe, a	they/them
DU	sò	us

DU.PL EXCL wèr ye – me + him (excl you) wèe ye – you + him (excl. me)
 1PL INCL sèe – us (excl them)
 1PL.EXCL Complex form: wèr woowèe – us (excl. you) + them
 1PL. INCL Complex form: sèe woowèe – us + them
 2PL. Complex form: wèe woowèe – you (pl excl me) + them

Cliticization of Speech Introducers

- 33a) Mè laa menè m̩ be no ba mdip.
 Mè laa m̩-nè m̩ be no ba mdip.
 1SG. say 1SG-SP.INTRO 1SG.ANA FUT1 drink FOC. water.
 I said that I will drink water instead.
- 33b) Wè laa wene à be no mru' lè?
 Wè laa w̩ -ne à be no mru' lè?

2SG say 2SG-SP.INTRO 2SG.ANA FUT1 drink wine Q.

Did you say that you want to drink wine?

- 33c) Woowèe a laa ane a be no mrù'.
 Woowèe a laa a-ne a be no mrù'.
 3PL 3PL.SM say 3PL-SP.INTRO 3PL.ANA FUT1 drink wine
 They said that they [themselves] will drink wine.

Cliticization of Conjunction/Complementizers

- 33d) Wèr woowèe à m̄ sèesi werne wèr be dù wee
 Wèr woowèe à m̄ sèesi wer-ne wèr be dù wee
 1PL EXCL 1PL.SM PST3 arrange 1PL.COMP 2PL FUT1 go hunt.
 We (+ them) arranged that we (+ them) will go on a hunt.

- 33e) Wèr woowèe à m̄ sèesi werne woowèe a v̄.
 Wèr woowèe à m̄ sèesi wer-ne woowèe a v̄.
 1PL EXCL 1PL.SM. PST3 arrange 1PL.COMP 3PL FUT1 3PL.SM come.
 We (+ them) arranged that they should come.

KS: Unless it is in your grammar, which I will have to go back and consult, what do you take to be the difference between speech introducers and complementizers?

Cliticization of WH-questions

- 33f) M̄ be gèe meke àgho
 M̄ be gèe me-ke àgho
 1SG. FUT1 do 1SG-Q ASSO.
 What will I do with it?

- 33g) E m̄ bipshi, wè laa weke
 E m̄ bipshi, wè laa we-ke
 3SG PST2 ask 2SG say 2SG.-Q.
 When he asked you, what did you say?

KS: Is the word corresponding to 'what' the last one, and if so, is it correct that it agrees with the subject of 'say'?

Possessive marking with tones on pronouns

1SG. m̄

2SG w̄

3SG ȳ

1PL w̄r,

2PL w̄e

3PL w̄p

Dual. s̄

PL INCL s̄e

- 34) E cu sè'ni mbe ȳ ndàp
 1SG live now PREP 3SG.TON.POSS house.
 He is now living in his house.

Possessive pronoun

1SG. Singular forms: yàa, rlaa, yaa – mine

Plural forms: bwaa, mmaa, yaa - mine

2SG. Singular forms: rloo, yòo - your

Plural forms: yoo, bwoo, mmoo - your

2PL. Singular forms: yèe, , rlee – your

Plural forms: yee. yee, mmee, bwee – your

3SG. Singular forms: rlii, zhii – his/her/it

Plural forms: bvii, mmii, zhii – his/her/it

3PL. Singular forms: yàp, rlap - their

Plural forms: yap, bwap, mmap - their

DU Singular forms: rlisò, zhìsò – our

Plural forms: bvisò, zhisò, mmisò – our

SG.INCL Singular forms: rlisèè, zhìsèè – our

Plural forms: bvisèè, zhisèè, mmisèè – our

35) Rlisèè rli yu be ndùŋ

C5.SG.INCL.POSS.PRO C5.SG.SM be LOC ceiling.

Ours is on the ceiling.

Possessive Adjectives

Person	1SG.	2SG	1 + 2SG	3SG	1PL	2PL	3PL	1 + 2.PL
Class1/1a	yàa	yòo	zhìsò	zhìi	yèr	yèe	yàp	zhìsèè
Class 2	waa	woo	visò	vi	wer	wee	wap	visèè
Class 5	la	lo	lisò	li	ler	lee	lap	lisèè
Class 6	ma	mo	misò	mi	mer	mee	map	misèè
Class7/7a	yàa	yòo	zhìsò	zhìi	yèr	yèe	yàp	zhìsèè
Class 10	yaa	yoo	zhisò	zhii	yer	yee	yap	zhisèè

Possessive focused adjectives

Person	1SG.	2SG	1 + 2SG	3SG	1PL	2PL	3PL	1 + 2.PL
Class 1/a	yàa	yòo	zhìsò	zhìi	yèr	yèe	yàp	zhìsèè
Class 1b	wàa	wòo	wèe	zhìi	wèr	wèe	wàp	zhìsèè
Class 2	bwaa	bwoo	bvisò	bvii	bwer	bwee	bwap	bvisèè
Class 5	rlaa	rloo	rlisò	rlii	rler	rlee	rlap	rlisèè
Class 6	mmaa	mmoo	mmisò	mmii	mmer	mmee	mmap	mmisèè
Class 7/a	yàa	yòo	zhìsò	zhìi	yèr	yèe	yàp	zhìsèè
Class10	yaa	yoo	zhisò	zhii	yer	yee	yap	zhisèè
	waa	woo	zhisò	zhii	wer	yee	wap	zhizii

36) E lør yaa ŋwà'.

3SG take C1.1SG.POSS.PRN book

He has taken my book (offered)

37) E lør ŋwà' yaa

3SG take book C1.1SG.POSS.FOC.ADJ

He has taken my book (personal)

2.2.3 Null arguments - If your language allows argument drop (null pronouns, or pro-drop) as a pronominalization strategy in simple (single clause) sentences, then name it here as an additional pronominalization option. This kind of argument drop does not have to be interpreted as reflexive (as in the case of English John washed), but rather it is the sort of argument drop that could be used where there is not necessarily an antecedent in the sentence, but the interpretation is like that of an independent pronoun. Provide an examples for each grammatical function that can be dropped. In Japanese, for example, null arguments are possible for both subject and object arguments, but none of the examples in (A10e-f) are possible in English. If your language allows the pronouns to drop for any of these grammatical functions (subject, object, prepositional object), but the range of pronominal interpretations is limited, please comment. (If agreement plays a role with respect to when a pronoun can be missing, please say so, even though your answer to this may overlap with your answer to 2.2.2.)

38) Pro-drop with rising tone.

38a) E fa mè nô

3SG give 1SG drink

He gave me (and) I drank (it)

38b) E nòŋsi à zhê

3SG keep 2SG eat

If he keeps (it) eat (it).

KS: Where is 2sg in the translation? Is it 'If he keeps it, you eat it?'

39) Pro-drop with low tone

39a) A ka' koo à be'tì.
2SG COND take 2SG turn upside down
If you take (it), turn (it) upside down.

KS: Is it correct to say that this is a conditional followed by an imperative?

39b) À ka' koo à baabà.
2SG. COND take 2SG carry on the back
If you take (it), carry (it) on your back.

40) Pro-drop with vowel echo

40a) Hal à lip i
Hal C1.3SG.SM hit vowel echo
Hal hit (it).

40b) Hal à bɛ' ɛ.
Hal C1.3SG.SM break vowel echo
Hal has broken (it)

If your language does not allow null arguments, then just translate these sentences, star them, and move on.

2.2.4 The use of otherwise independent pronouns for clausemate anaphora

Even if your language has a special strategy for local anaphora, as English does (e.g., the use of pronoun-*self*), we still need to know whether or not a simple pronoun, a pronoun that could be used in contexts like those in (A10a-c), could also be used to form a reflexive reading.

41) Ali à m̃ nàa ye.
Ali C1.3SG.SM PST3 praise 3SG.OBJ
Ali praised him. (him is not Ali)

42) Ali à m̃ kòŋ ye.
Ali C1.3SG.SM PST3 like 3SG.OBJ
Ali liked him. (him is not Ali)

43) Ali à m̃ ye ye.
Ali C1.3SG.SM PST3 see 3SG.OBJ
Ali saw him. (him is not Ali)

44) Ali à m̃ làa nè ye.
Ali C1.3SG.SM PST3 talk PREP 3SG.OBJ
Ali talked to him. (him is not Ali)

45) Ali à m̃ tuusi ŋwà' nè ye
Ali C1.3SG.SM PST3 send book PREP 3SG.OBJ
Ali sent a book to him. (him is not Ali)

46) Ali à m̃ jà' ye.
Ali C1.3SG.SM PST3 help 3SG.OBJ
Ali helped him. (him is not Ali)

47) Ali à m̃ bɛ̀ ye.
Ali C1.3SG.SM PST3 surprise 3SG.OBJ
Ali surprised him. (him is not Ali)

48) Ali à m̃ yuu ye ŋwà'
Ali C1.3SG.SM PST3 buy 3SG.OBJ book

Ali bought a book for him. (him is not Ali)

49) Ali à m̀ b̀' ɲwà' àmbò ye.
Ali C1.3SG.SM PST3 read book PREP 3SG.OBJ
Ali read a book about him (him is not Ali)

50a) Ali à m̀ ye ɲwà' àgee ye.
Ali C1.3SG.SM PST3 see book LOC 3SG.OBJ
Ali found a book near him. (him is not Ali)

50b) Ali à m̀ ye ɲwà' a yě geɲ.
Ali C1.3SG.SM PST3 see book PREP 3SG.OBJ.POSS LOC
Ali found a book near him (Ali).

In English, none of (A10g-n) are acceptable if *him* = Ali, rather all speakers find that *him* must refer to someone other than Ali. Most English speakers, though not all, accept (A10l, m) with *him* = Ali. Try to use verbs close to these and use pronouns corresponding to the direct object (or object markers, if that is what your language uses for direct object pronouns) and determine if the pronoun you use can form a reflexive reading (=Ali) or not in these cases or not. It is especially important to keep in mind that we also need translated examples that show what is not possible, when that is the case.

2.3 Reciprocal Readings

The previous sections asked about strategies for reflexive coreference. We now consider reciprocals. Please keep in mind that we are still just compiling an inventory of strategies and we shall explore details later. As before, remember to treat "optional" morphemes as evidence of distinct strategies.

2.3.1 If you have already listed a reflexive strategy that can also have reciprocal meaning, provide an example here with a reciprocal translation.

51) Jôn ba Pità a ce cepni.
Jôn ba Pità a ce cep-ni.
John CONJ Peter 3PL.SM ASP.CONT insult-DU.RCM.
John and Peter are insulting each other.

2.3.2 As a means of assessing what sorts of reciprocal strategies your language contains, consider these typical sorts of reciprocal sentences in English. If a new strategy is involved (a special reciprocal form, or affix, or clitic or argument drop, or verb form, etc.), name it and give an example. (For argument drop, consider English *They argued*, which can be understood to mean that 'they argued with each other').

52) Byènge anà a ke yeni.
Byènge anà a ke ye-ni.
Women ANA.DET 3PL.SM ASP.HAB see-DU.RCM
The women see each other.

KS: Is the 'one-CONJ-one' strategy possible here? Is it possible with a preceding preposition in addition to *-ni* on the verb?

FN: The 'one-CONJ-one' strategy is possible only when the subjects are more than two. It is not possible with a preceding preposition in addition to the verb suffixes.

53) Boombaɲrù a m̀ sù'si mò' ba mò'.
Boo-mbaɲrù a m̀ sù'si mò' ba mò'.
Children-male 3PL.SM PST3 wash one CONJ one
The boys washed each other.

Comment: This example could be formulated with the *-ni* strategy only if the the subject is understood to be two boys.

54) Mmbaɲrù a m̀ shà' tu ese mò' ba mò'.
M-mbaɲrù a m̀ shà' tu ese mò' ba mò'.
C6-Men 3PL.SM PST3 comb head PREP one CONJ one
The men combed each other's hair.

KS: If you were to use the *-ni* strategy here could you omit *ese...mò'*? Could they be used together?

FN: Yes!.They cannot be used together with this verb, but with others they can.

55) A m̩ seni.

A m# se-ni.
 2PL PST2 argue-DU.RCM.
 They argued with each other.

56) Boombaŋrù a m̄ tani.
 Boo-mbaŋrù a m̄ ta-ni.
 Children-male 3PL.SM PST3 kick-DU.RCM
 The boys kicked each other.

57) A bàni i.
 A bà-ni i.
 3PL hate-DU.RCM. vowel echo
 They hate each other.

2.3.3 Oblique arguments - Continue looking for new reciprocal strategies by translating sentences like those in (A12), which involve reciprocals embedded in prepositional phrases. If your language has prepositions and these examples do not translate as having reciprocals embedded in prepositional phrases, then please provide examples from your language that do.

58) Mmbaŋrù a m̄ dùŋshi Bîl nè mò' ba mò'
 Males 3PL.SM PST3 introduce Bill PREP one CONJ one
 The men introduced Bill to each other.

59) Ŋgàrjèr a ce de' e.
 Ŋgà-rjèr a ce de' e.
 People-travel 3PL.SM ASP.CONT talk vowel echo
 The travelers spoke to each other.

KS: This appears to be an inherently reciprocal verb which requires no reciprocal marking. Would you agree with that assessment?

FN: I agree that it is an inherently reciprocal verb, which does not require reciprocal marking.

60) Ŋwèrfè'shì à yu'shi bkifèr ese mò' ba mò'.
 Ŋwè-rfè'shì à yu'shi b-kifèr ese mò' ba mò'.
 Person-preach C1.3SG.SM listen-PLU C2-stories PREP one CONJ one.
 The priests heard stories about each other.

61) A nòŋsi bkèe kùntombì mò' ba mò'.
 A nòŋ-si b-kèe kùntombì mò' ba mò'.
 3PL keep-CAUS C2-presents LOC one CONJ one
 They left presents in front of each other.

Also consider other verbs that have unusual argument structures in your language.

2.3.4 Other persons and numbers, etc. If another, so-far unknown strategy is used in some persons or numbers, or special aspectual classes etc., name it here.

62) Wèr à m# yeni
 Wèr à m# ye-ni
 1PL 1PL.SM PST2 see-DU.RCM
 We saw each other.

63) Wèe t#r à rjà'se mnyor.
 Wèe t#r à r-jà'-se m-nyor.
 2PL have INF INF-help-PLU.RCM C6-bodies
 You (PL.) must help each other.

Comment: The *-ni* (Dual Subj) / “one CONJ one” strategy can be used here but the “bodies’ will be excluded. The body strategy is preferred because of the physical action involved. If we add a POSS. ADJ here, we may have to delete the *-se* suffix and the reading will become reflexive rather than reciprocal.

KS: Please provide sentences for all the variants you describe. This is very interesting.

64) Sèe be sù'si bvisèe mnyor.
 Sèe be sù'si b-visèe m-nyor.
 1PL.INCL FUT1 wash C2-1PL.INCL.POSS.PRN C6-bodies
 We will wash ourselves.

65) Woowèe a ke kũ jàani.
 Woowèe a ke-kũ jàa-ni.
 3PL 3PL.SM ASP.HAB criticize-DU.RCM
 They always criticize each other.

66) Ku' boombaṅrù a m̄ ce tani.
 Ku' boo-mbaṅrù a m̄ ce ta-ni.
 ADJ children-male 3PL.SM PST3 ASP.CONT kick-DU.RCM
 Many boys kicked each other.

2.3.5 Other clause types, and other strategies: Briefly consider various types of reciprocal embedded clauses; if a new coreference strategy can be used with some of them, name it here. Also consider if there may be a reciprocal strategy not identified by the preceding questions. Use the following sentences as models, but if there is nothing new to be found this way, do not bother to translate them and move on.

A14a) Sôl à làa ene boobyenḡe a koṅni i.
 Sôl à làa e-ne boobyenḡe a koṅ-ni i.
 Sol C1.3SG.SM say 3SG.SP.INTRO girls 3PLSM love-DU.RCM vowel echo
 Sol says that the girls love each other.

b) Sôl à m̄ tà' ene boobyenḡe a ce naani
 Sôl à m̄ tà' e-ne boobyenḡe a ce naa-ni
 Sol C1.3SG.SM PST3 require 3SG.COMP girls 3PLSM ASP.CONT praise-DU.RCM
 Sol required that the girls praise each other.

c) Sôl à m̄ kwà' ene boobyenḡe a ba ce naani
 Sôl à m̄ kwà' e-ne boobyenḡe a ba ce naa-ni
 Sol C1.3SG.SM PST3 require 3SG.COMP girls 3PLSM MOD ASP.CONT praise-DU.RCM
 Sol thought the girls should praise each other.

d) Sôl à m̄ làa nè boobyenḡe ene a ce naani
 Sôl à m̄ làa nè boobyenḡe e-ne a ce naa-ni
 Sol C1.3SG.SM PST3 say PREP girls 3SG.SP.INTRO 3PL ASP.CONT praise-DU.RCM
 Sol asked the girls to praise each other.

ei) Boobyenḡe a ce ròò à màani.
 Boobyenḡe a ce ròò à r-nàa-ni.
 Girls 3PL.SM ASP.CONT want INF. INF-praise-DU.RCM
 The girls want to praise each other.

KS: Is this sentence possible if we add *mnyor* to the end of it, or would it just sound redundant or emphatic? What about if we added '(their heads)'?

eii) Boobyenḡe a ce ròò à màase mnyor
 Boobyenḡe a ce ròò à r-nàa-se m-nyor
 Girls 3PL.SM ASP.CONT want INF. INF-praise-PLU.RCM C6-bodies
 The girls want to praise each other.

KS: Isn't 'praise' a verb that takes a simple reflexive with the 'head' body part? When the RCM.pl affix is used, does it require the 'bodies' form to get the 'praise each other' reading?

f) Sôl ce kè' ene boobyenḡe a naani
 Sôl ce kè' e-ne boobyenḡe a naa-ni
 Sol ASP.CONT expects 3SG.COMP girls 3PLSM praise-DU.RCM
 Sol expects the girls to praise each other.

- g) Sôl à yu' àmbò boobyenḡe a ce nàani.
 Sôl à yu' àmbò boobyenḡe a ce nàa-ni.
 Sol C1.3SG.SM hear CONJ girls 3PL.SM ASP.CONT praise-DU.RCM
 Sol heard the girls praising each other.

2.4 Other types of local coreference

Possessives, alienable and inalienable - Please translate these sentences and provide the best gloss that you can. Is one of the strategies described above used?

- 67a) Pôl à b̥si blaba'.
 Pôl à b̥-si b-laba'.
 Paul C1.3SG.SM lost-CAUS C2-shoes
 Paul lost his shoes.

- 67bi) Pôl à b̥si bvi blaba'.
 Pôl à b̥-si bvi b-laba'.
 Paul C1.3SG.SM lost-CAUS C2.3SG.POSS.PRN C2-shoes
 Paul lost his (another's/ allocated Paul's) shoes.

- 67bii) Pôl à b̥si blaba' bvii
 Pôl à b̥si b-laba' bvii
 Paul C1.3SG.SM lost-CAUS C2-shoes C2.3SG.POSS.FOC.ADJ
 Paul lost his (Paul's) shoes.

- 68) Pôl à ba naa bo.
 Paul C1.3SG.SM PST1 raise hand
 Paul raised his hand. (e.g., in class)

- 69) Pôl à s̥e bo
 Paul C1.3SG.SM cut hand
 Paul cut his hand. (e.g., accidentally)

- 70a) Pôl à m̥ fyɛ'shi bo.
 Paul C1.3SG.SM PST3 examine hand
 Paul examined his hand.

- 70b) Pôl à m̥ fyɛ'shi bo zhii
 Paul C1.3SG.SM PST3 examine hand C1a.3SG.POSS.FOC.ADJ
 Paul examined his hand.

- 71a) Pôl à tee ntukùu.
 Paul C1.3SG.SM cut toe
 Paul stubbed his toe.

- 71b)? Pôl à tee ntukùu zhii.
 Paul C1.3SG.SM cut toe C1a.3SG.POSS.FOC.ADJ
 Paul stubbed his toe.

2.4.2 Reflexives and reciprocals in nominals - Some languages use a different affix or form to establish a reflexive relationship inside of a nominal. Identify any strategies that can apply to nouns rather than verbs. (Other possibilities: self-destruction, self-help, etc.)

- A16) Ntee zhi m̥ yaḡ Merì nè ḡkurntee Andrù.
 Heart C1a.3SG.SM PST3 pain Mary PREP self-confidence Andrew
 Andrew's self-confidence annoyed Mary.

- A17a) Andrù à suḡ rli rlii, cicà à yu' rbòḡ

Andrew C1.3SG.SM tell C5.3SG.POSS.PRN name teacher C1.3Sg.SM feel fine.

Andrew's introduction of himself impressed the teacher.

Nsuŋ àmbò zhii tu à ba yuu ghagha' nè Andrù.

N-suŋ àmbò zhii tu à ba yuu gha-gha' nè Andrù.

C1-tell PREP C1a.3SG.POSS.PRN head C1.3SG.SM be thing critical PREP Andrew

Andrew's evaluation of himself was too critical.

Wap btaŋ nè mò' ba mò' bvi raa ka'

C2-3PL.POSS.PRN instructions PREP one CONJ one C2.3PL.SM clear NEG

Their instructions to each other were not clear.

d) Yàp nsuŋ àmbò mò' ba mò' à ba nè rbòŋtuŋwè sê.

Yàp n-suŋ àmbò mò' ba mò' à ba nè r-bòŋ-tu-nwè sê.

C1.3PL.POSS.PRN C1-tell PREP one CONJ one C1.3SG.SM be PREP C5-generosity INTEN.

Their evaluations of each other were too generous.

Comments: Limbum does not have any reflexives or reciprocals in nominals.

KS: Please give me an idea with examples of how these meanings would be gotten across.

FN: Actually it was necessary. With these, the distinction between 'one CONJ one', the POSS.PRN and body parts becomes clearer. But it is not yet clear to me why some verbs may prefer the *-se* suffix for plurality of more than three whereas others take the "one CONJ one" strategy. Empirical work needed for this.

2.4.3 Something we haven't thought of? - Please bring to our attention any other sort of local coconstrual between arguments of a predicate that you think is relevant.

A. Reference to relative subject of the antecedent and not the antecedent itself

This is a discourse anaphoric effect, which I will not pursue further here.

B. Reference to part and not the whole antecedent (bound pronoun)

Examples as with complex forms: see (33d) and ((33e) above

C. Reference to indefinite Subjects.

This also has to do with discourse anaphora.

2.4.4 It would be useful to us if you could provide a list of the different strategies so we are both clear as to which ones you distinguish. This you may revise on the basis of new ones you come across in filling out the form, if there are any.

Pronominal Strategies

1. Personal Pronouns

1a. Personal Pronouns

1b. cliticization of Speech introducers

1c. cliticization of Conjunctions (Complementizers)

1d. cliticization of some wh questions

2. Focal Pronouns

3. Possessive pronouns

4. Unique acquired possessive pronouns

5 Possessive adjectives

6. Possessive focused adjectives

7. Tonal possessive marking

8. Pro-drop marking

8a. Rising tone

8b. Low tone

8c. Vowel echo (see below for association with 'anaphoric determinants)

9. Unique emphatic Pronouns

Comment: KS: Apart from the one that means 'alone', I wonder if we might similarly class the ones that I suggested might be like 'with his own hand/eyes/ears'? FN: We may do so. The only difference is the emphasis. Also take note of the fact that the Unique Emphatic Pronouns do not make use of all Limbum pronoun forms (Restricted only to eight forms).

Reciprocal Strategies

1a. Zero option

1b. Reciprocal verb extensions *-ni*, *-se*, *-ŋger* and *-te*

1c. 'one CONJ one' phrase

1d. *-ni* + 'one CONJ one' phrase

Comment: We don't have examples with *-te* and *-ŋger* above. See section three.

Reflexive Strategies

1. body part forms

a. Argument type

i. POSS.prn head

ii. 'POSS.prn body

b. Adverbial type

i. POSS.prn hand

ii. POSS.prn eye

Comment: See notes on default marker for reflexives; where you will find that there is a mismatch with the arguments. Without the instrumental preposition and the possessive pronouns, the reading gives room for action caused by a subject, which is not the antecedent.

2. use of *-ni* as reflexive marker

Markers of Discourse Anaphora

Comment: These are discourse level determiners, as there are no determiners in Limbum.

Examples:

i. ŋwèmǒ à lǒr yàa bacikùl.

Person-INDF C1-3SG.SM take C1-1SG.POSS.PRN bicycle.

Some has taken my bicycle.

ŋwè anà a nzhèè.

Person ANA.DET is thief

The person is a thief.

ii. Mè vè a yè muumò' e ce zhe mkuu mber

Mè vè a yè muumò' e ce zhe m-kuu m-ber.

1SG come CONJ see child-INDF 3SG.ANA ASP.CONT eat C6-beans C6-raw.

I came and saw a (certain) child eating raw beans.

Ka' cu muu cà à ghap ì.

Then stay child ANA.DET C1-3SG.SM vomit vowel echo

After a while the child vomited.

Comment: These anaphoric determinants can also be realised at syntactic level as can be seen in Section for numbers E8c-d and E9b-c. Nice you insisted on seeing the examples.

Anaphoric relativisers

Comment: These also occur strictly at discourse level or intersententially.

i. La rkòŋ rli kepti i.

La r-kòŋ r-li kepti i.

C5-1SG.POSS.PRN C5-spear C5-3SG.SM break vowel echo

My spear is broken

ii. A rce wè m# yuu nà a?

A r-ce wè m# yuu nà a?

Is C5-ANA.REL 2SG PST2 buy ANA.DET Q

Is it the one you bought?

Comment: The class prefix of the class 5 noun of the previous sentence is attached to the relativiser to show that it is corefering to that class 5 noun.

Part 3 General details about the strategies

You should now have a list of several different "strategies" for coreference, each represented by one or more examples. The following sections will study the properties of each of these strategies.

For each question, you should give a separate answer for each of the strategies you have identified. Be sure to clearly label each answer with the name of the strategy used (A, B, "zich", etc.). Even you feel that it is obvious which strategy is used, labeling all your answers will help us process them efficiently and avoid errors.

It may be easier for you if you complete part 3 of the questionnaire for one strategy at a time. Begin with the first strategy you have identified (Strategy A, for example), and answer all questions as they apply to it. Then return to this point and do the same with strategy B, etc. This is

just a suggestion, however. You may find it easier to go through answering for all strategies for each question. Some questions refer to "the current strategy," meaning whichever strategy you are providing an answer for at that moment. This part of the AQ is harder for those with little or no linguistic training, since we are asking you to make analytic distinctions.

3.1 Marking

3.1.1 Marking Strategies for coconstrued interpretations

- Ma) Marking on a coconstrued argument. (E.g., English *himself*)
- b) Marking on the verb or an auxiliary. (French clitic *se*, the Bantu reflexive marker)
- c) Coconstrual is marked by dropping an argument. (as in English *John washed*)
- d) Coconstrual is signaled by a specialized adjunct. (Such as *l'un l'autre* in (Y1)).

Reflexive Strategies

Aa. Use of (POSS) + 'body' or 'head' (reflexive reading)

Reflexivity is expressed in Limbum using the noun 'body' in the sense that the body is the object (i.e., it is an argument-marking strategy). Sometimes the body is modified by the possessive adjective that is coreferent to the subject NP. The use of the noun 'head' is used for reflexive readings when the event or relation is psychological rather than physical. The agreement of the possessive with the antecedent and with the body part is described in the section on agreement.

Ab. Use of POSS + body part for exclusive action (adverbial reflexive)

The use of body parts is to mark exclusive participation of the subject in the event (KS: As in English, He did it himself, i.e. nobody helped him). This is done in a way that we have a subject, verb, object, and a body part introduced by the instrumental preposition 'nè' and modified by the adjectival possessive that is co-referent to the subject. These body parts are placed after the object and the choice of the body part to mark subject exclusion depends on the action. The constructions are done in such a way that the addressee is made to think that the action is carried out without any other person's help, thereby excluding another actor in the event. [KS: I have edited this paragraph – make sure I have not misrepresented]. The default body part for expression of exclusive subject is "hand". This means that when the verb does not determine the choice of the body part; rather 'hand' is used as default. [KS: I have moved multi-subject marking to the agreement section, rather than as a strategy]

Ac. Unique Emphatic pronoun

Unique emphatic pronouns mark exclusiveness in the sense that it brings about some meaning through which we understand that the subject was the sole actor. The unique emphatic pronoun contains the morpheme 'mnji' meaning 'alone'. The difference with body parts involvement is the fact the focus is more on the subject than the action.

Ad. Use of *-ni* for reflexive readings.

This is normally the dual marker for reciprocal interpretations, but it can have a reflexive meaning if the subject denotes exactly two individuals [KS: Please confirm or revise.]

Strategy B. Reciprocals.

In Limbum, reciprocal meaning is expressed with the use verb extensions *-ni*, *-s*, *-ngger* and *-te*. With some verbs, we have a zero option. In other instances 'one CONJ one' is used or the *-ni* suffix is used together with 'one CONJ one'.

Ba. The verb extension *-ni*

Generally, *-ni* is used to express bifurcation or dual reciprocal meaning in Limbum. It is used to express reciprocity between two persons or parties.

Bb. The verb extension *-se*.

The extension *-se* is used only with certain verbs to express reciprocity between two or more parties in a sense that the action is continues for some time. [KS: Does the use of *-se* with a reciprocal meaning require the presence of 'POSS + bodies' or is it merely compatible with it? Please provide examples where 'POSS + bodies' is absent (elsewhere I think you say that this is ok). If one-CONJ-one is used, is the use of *-se* excluded? Example please]

Bc. The verb extension *-te*

The extension *-te* is to express reciprocity between many parties. It is also restricted to some verbs. [KS: Does the use of *-te* with a reciprocal meaning require the presence of 'POSS + bodies' or is it merely compatible with it? Please provide examples where 'POSS + bodies' is absent and where it is present. If one-CONJ-one is used, is the use of *-te* excluded? Example please. Can *-te* ever support a simple reflexive reading? If so, please provide an example]

Bd The verb extension *-.ŋger*

The extension *-.ŋger* is also used to express reciprocity between many subjects. In addition it is used to express action that has taken place repeatedly. [KS: Does the use of *-ŋger* with a reciprocal meaning require the presence of 'POSS + bodies' or is it merely compatible with it? Please provide examples where 'POSS + bodies' is absent and where it is present. If one-CONJ-one is used, is the use of *-ŋger* excluded? Example please. Can *-ŋger* ever support a simple reflexive reading? If so, please provide an example]

Be. The zero option.

With the zero reciprocity is inherent with some verbs.

Bf. One CONJ one strategy

This strategy is used to express reciprocity between many parties as well as serial reciprocal actions that takes place between two parties when the 'one CONJ one' is used alongside the *-ni* verb extension. [KS: Is this strategy ever sufficient to form a reciprocal interpretation when there is no special affix on the verb?]

3.2 Productivity

3.2.1 How productive is this strategy, with respect to which verbs or predicates allow it? when you write up this section, indicate that the strategy in question is either *extremely productive*, *fairly productive*, or *I am not sure*.

A strategy is "extremely productive" if it can be applied to nearly every verb you can think of. It is "fairly productive" if there are many exceptions, but you could still find a potentially unlimited number of verbs that allow it. (Could you name twenty verbs that allow it without too much difficulty?). One way of testing for productivity you might try is to see if the current strategy can be used for verbs that are formed in a productive way from other categories. For example, English *-ize* is added to nouns to make verbs, and all of the verbs formed in this way in English use the x-SELF strategy. If this works, then the strategy in question is productive.

A strategy is not productive if it can only be used for a small set of verbs and cannot normally be extended to newly formed verbs. For example, the null object strategy for reflexive interpretation in English is not productive because it applies to a small set of verbs (*wash, shave, dress, bathe...*) and not generally (**John killed, *John praised, *John promoted*, none with reflexive meaning) and does not easily extend to similar forms, e.g., **John cleaned*.

Aa. Use of the noun body as object

- Not productive

Abi. Use of body parts

FN: The default body part 'hand' takes direct arguments and as well it does not. [Please give an example where 'hand' takes a direct argument antecedent to form a reflexive reading]. The body part 'foot' always takes an adjunct usage. With body parts ear, nose, eye and mouth the arguments are optional. But the body part 'head', always takes a direct argument.

A. Reflexives.

Hand – Extremely productive

Foot – Not productive

Nose - Not productive

Ear – Not productive

Eye – Not productive

Mouth – Not productive

Head – Fairly productive

Ad. Unique Emphatic pronoun

- Extremely Productive

B. Reciprocals

The verb extension *-ni* Fairly productive

The verb extension *-se*. Not productive

The verb extension *-te* Not productive

The verb extension *-.ŋger* Not productive

The zero option. Not productive

One CONJ one strategy Not productive

The extension *-te* mostly takes adjuncts, *-ŋger* does not take a direct argument whereas the rest inherently do.

3.2.2 Is the use of this strategy lexically restricted to certain verb classes, or is it unrestricted (applies across all verb classes)?

A strategy is "restricted to a specific class" if you are aware of some class of verbs which are the only ones, or nearly the only ones, that allow its use. If the strategy is restricted in its use, please describe, if you can, what you think the restriction is. Please give a few examples where it is possible to use it, and a few examples where it is not possible to use it. (e.g., "used only with verbs of motion"). Use the following scale: (a) Has (almost) no exceptions, (b) Has few exceptions, (c) Is only a general tendency, (d) Can't tell.

A. Reflexives

Aa. Use of the noun body as object

The use of the noun body as an object to express reflexivity is restricted to a few verbs like wash, see and look especially as the reference is made to the whole physique of the subject e.g.

Aai) Jôn à sù'si nyor.
 John C1.3SG.SM wash body
 John has washed himself.

Aaii) Jôn à fye' zhii nyor nje rcerlir.
 Jôn à fye' zhii nyor nje r-cerlir.
 John C1.3SG.SM look C1a.3SG.POSS.PRN body PREP C5-mirror.
 John looked at himself in the mirror.

Comment: The strategy changes and is restricted to mental activities when the body part 'head' is used e.g.

Aaiii) Jôn ce fa ŋge' nè zhii tu.
 John ASP.CONT give troublePREP C1.3SG.POSS.PRN head.
 John is troubling himself.

Abi. Use of body parts nose

Abia) The strategy of using the body part 'nose' is restricted to verbs like smell e.g

E rùusi nè zhii nfyènyu.
 1SG smell PREP C1a.3SG.POSS.PRN nose.
 He has smelt (it) himself.

Abib) The strategy of using the body part 'eye' is restricted to verbs like see, watch and look. The context also determines this usage.

E ye nyàa anà nè li rlr.
 3Sg see animal ANA.DET PREP C5.3SG.POSS.PRN eye
 He has seen the animal himself.

Abic) The strategy of using the body part 'mouth' is restricted to verbs like eat, drink and taste e.g.

Mè yu'shi nè yaa cùu.
 1SG. taste PREP C1a.1SG..POSS.PRNmouth.
 I tasted (it) myself.

Abid) The strategy of using the body part 'foot' is restricted to verbs like travel and go.

Woowè a m̀ dù mboo nè map mkùu.
 Woowè a m̀ dù mboo nè map m-kùu.
 3PL 3PL.SM PST3 go LOC PREP C6.3PL.POSS.PRN C6-feet
 They went there themselves.

Abie) The strategy of using the body part 'ear' is restricted to verbs like hear and listen e.g

Wè m̀ yu' nè yoo tù' a?
 2SG PST3 hear PREP C1a.2SG.POSS.PRN ear Q
 Did you hear (it) yourself?

Abid) Body part 'hand' involves verbs denoting manual work and is also the default reflexive strategy for every non human subjects.

E ò fà' nsuu nè zhii bo.
 3SG PST3 work farm PREP C1a.3SG.POSS.PRN hand
 He ploughed the farm himself.

Sij à gwè nè zhii bo.
 Bird C1.3SG.SM fall PREP C1a.3SG.POSS.PRN hand
 The has bird fallen by itself

Ad. Unique Emphatic pronoun

The unique emphatic pronoun can be extremely productive but it is restricted human subjects. The context also determines the reflexive meaning attached to the morpheme 'mnji', which characterizes this strategy. Moreover, the use of the unique Emphatic pronoun is restricted only to eight possessive forms, which refer to the subjects.

E ò fà' nsuu mimnji'.
 3SG PST3 work farm 3SG.UNI.EMP.PRO
 He ploughed the farm himself / alone.

À be dù koo momnji'
 2SG. FUT1 go LOC 2SG.UNI.EMP.PRO
 You will go there yourself / alone.

?* Nyàabàrà' à ò caṅ mimnji'.
 Horse C1.3SG.SM PST3 run 3SG.UNI.EMP.PRO
 The horse ran alone/ by itself.

B. Reciprocals

Ba. The verb extension *-ni*

The verb extension *-ni* has a few exceptions e.g.

Wèr ye à gâpni i
 Wèr ye à gâp-ni i
 1PL.DU.EXCL C1-1PL.SM separate-DU.RECIP vowel echo.
 We have separated with each other.

Woowè a ba ce tani
 Woowè a ba ce ta-ni
 3PL 3PL.SM PST1 ASP.CONT kick-DU.RECIP
 They were kicking each other.

Bb. The verb extension *-se*.

The *-se* verb extension is restricted to verbs of movement.

Woowè a ce baase mnyor
 Woowè a ce baa-se m-nyor
 3PL 3PL.SM ASP.CONT embrace-RECIP C6-bodies
 They are embracing each other.

Mmutù bvi ce bàase
 M-mutù bvi ce bàa-se
 C6-cars C6-PL.SM ASP.CONT bypass-RECIP
 The cars are bypassing each other.

Bc. The verb extension *-te*

The verb extension *-te* is fairly restricted to verbs with a notion of 'meet'.

Woowè a tarte ser ntaa
 Woowè a tar-te ser ntaa
 3PL 3PL.SM meet-RECIP PREP market
 They met at the market.

Wèr ye à baate mmbo
 Wè ye à baa-te m-mbo
 1PL.DU.EXCL 1PL.SM close-RECIP C6-hands
 We closed each other's hands.

Bd. The verb extension *-.nger*

The verb extension *–nger* is restricted to a few verb but can tell.

Mntaṅguu bvi ce kùṅger e
 M-ntaṅguu bvi ce kùu-nger e
 C6-sticks C6-3PL.SM ASP.CONT knock-RECIP vowel echo
 The sticks are knocking each other.

Be. The zero option.

The zero option has been observed only with the verb 'talk'

Jôn a Pità a ce de' e.
 John CONJ Peter 3PL.SM ASP.CONT talk vowel echo
 John and Peter are talking to each other/discussing.

Bf. 'One CONJ one' strategy

Comment: This strategy is used both where a verb extension can be used and also when it is not. But it is restricted to few verbs, which I can't tell.

Woowèe a ce kooshi mò' ba mò'.
 3PL 3PL.SM ASP.CONT scratch one CONJ one
 They are scratching each other.

Wèr à m tani mò' ba mò'.
 Wèr à m ta-ni mò' ba mò'.
 1PL 1PL.SM PST3 kick-RECIP one CONJ one
 We (many) kicked each other.

3.3 Context of Use

3.3.1 How marked or natural is this strategy? For example, is this strategy typical of a particular social style or literary style, or does it sound old-fashioned? Is it considered formal or casual or is it used in any of these contexts? Is it the way people talk to each other in 'normal' contexts?

Comment: Strategies A. Reflexives and B. Reciprocals are used in normal contexts.

3.3.2 Is special intonation or emphasis necessary, and if so, where (e.g., is it on the morpheme that constitutes the marker for the strategy or is it a contour on the verb, or perhaps a special contour for the whole sentence).

A. Reflexives

With this strategy, there is no special intonation. Emphasis can be done by adding the particle '*mbàa*', (which can be difficult to translate) at the sentence final position.

B. Reciprocals

Use for emphasis. It should be noted that the 'one CONJ one' strategy is used alongside the verbal extensions for both clarity and emphasis.

[KS: This is something I want to come back to at some point, examining the difference between clarity and emphasis by searching for contexts where answering with or without the 'one CONJ one' is unacceptable. If you have thoughts about it now, that's fine, but it's a lower priority just now]

3.3.3 Is a particular discourse context (e.g., contradicting) necessary? For example, it is possible to get coconstrual of subject and object in English with an object pronoun in special circumstances, as in B1.

B1a) If Marsha admires just one person, then I suspect that she admires just HER.

b) Marsha thinks I should trust no one but herSELF.

A. Reflexives

The discourse context whereby the object form is different is when reference is being made to an indefinite subject/object for first time. The example of B1a) is apt as the ‘one person’ - *ɲwɛ̀m̀ò*’ will further be referred to as *ɲgàɲ* – ‘her/him’ such that the object form *ye* is the object form that is used when reference is made to definite subjects.

B. Reciprocals

There is a pragmatic context of usage whereby an object pronoun follows the verb with a –reciprocal verb extension. That is mostly done in request such that the pronoun, which follows the verb refers to the beneficiary or patient of the request e.g.

M	be	teni	wè	ɲwaɲwaɲ	a?
M	be	te-ni	wè	ɲwaɲwaɲ	a
1SG	FUT1	cut-DU.RECIP	2SG	cane sugar	Q

Should I share the cane sugar between you and I?

Teni	mè	ɲwaɲwaɲ
Te-ni	mè	ɲwaɲwaɲ
Cut-DU.RECIP	1SG	cane sugar

Share the cane sugar with me.

3.4 Morphology

3.4.1 Does the reflexive element, in its entirety, have a stateable lexical translation?

A. Reflexives

The adverbial reflexive elements consist of instrumental preposition -*nè*, pronoun and body parts e.g. ‘with her/his head’, “with her/his hand’ etc. The unique emphatic pronoun has the morpheme *mnji* – ‘alone’ which consist of ‘his/her alone’ etc. All of the body parts used are nouns that are used in non-anaphoric expressions.

B. Reciprocals

Reciprocals with the verb extensions have stateable morpheme translations except for the –*te* whose meaning with the verb of cut is extended to ‘another and then the other’

3.4.2 If the term used as a reflexive or reciprocal can be used for a non-reflexive/non-reciprocal meaning, is it an ordinary noun that can be possessed by other pronouns? Is it some form of prepositional phrase or adjective? Is there anything further to say about its meaning in such cases?

A. Reflexives

With Limbum use of body parts for adverbial reflexives, an instrumental prepositional phrase introduces possessor + body part. With the unique emphatic pronoun *mnji* is not an ordinary noun that can be a possessor of the pronoun.

B. Reciprocals

The verb extensions that contribute to reciprocal interpretations are not used for reciprocal meanings when the verbs denote action that involves movement from one location to the other. This can be observed with the –*ni* and –*se* suffixes e.g.

Woowè	a	ce	caɲni
Woowè	a	ce	caɲ-ni
3PL	3PL.SM	ASP.CONT	run-DU.RECIP

They are running.

Woowè	a	ce	dùse
Woowè	a	ce	dù-se
3PL	3PL.SM	ASP.CONT	go-PLU.RECIP

They are going away.

3.4.3 If the reflexive element has clear syntactic and part-of-speech sub-structure show it here.

Agreement features etc.

A. Reflexives:

Hand	nè	yaa	bo	nè	map	mm-bo
	PREP	C1a.1SG.POSS.PRN	hand	PREP	C6-1SG.POSS.PRN	C6-hands
		myself			myself	

Comment: Plural agreement with body part ‘hand’ is done for emphasis when reference is made to a single subject. Plural marking is also accepted when reference is made to multiple subjects. This system is applied to all double body parts.

Unique emphatic pronouns

Ma-mnji’

1SG.UNI.EMP.PRO

I alone

Mo-mnji’

2SG. UNI.EMP.PRO

You alone

The unique emphatic pronouns only agree with the persons.

Head	nè	yaa		tu		nè	wer		b-tu
	PREP	C1a.1SG.POSS.PRN	head			PREP	C2-1PL.POSS.PRN	C2-hands	
		myself					Ourselves		

Comment: Since an individual cannot have many heads, plural agreement with head is done for multiple subjects. The same system can be applied to other single body parts. Wer is always used as a class 2 possessive pronoun but the meaning changes when it precedes or follows the object noun; possessive adjective and possessive focused adjective respectively. Tu is sub-class 1a noun which selects class 2 for plural marking.

B. Reciprocal

Dual Reciprocity

Jôn	a	Pità	a	ce	tani
Jôn	a	Pità	a	ce	ta-ni
John	CONJ	Peter	3PL.SM	ASP.CONT	kick-DU.RECIP

John and Peter are kicking each other.

Plural reciprocity

Jôn,	Pità,	Sara	ba	Jɛn	a	ce	tani	mò	ba	mò’
Jôn,	Pità,	Sara	ba	Jɛn	a	ce	ta-ni	mò	ba	mò’
John,	Peter,	Sara	CONJ	Jane	3PL.SM	ASP.CONT	kick-DU.RECIP	one	CONJ	one

John, Peter, Sara and Jane are kicking each other.

Comment: Here, it can be seen that there is no real agreement pattern. The ‘one CONJ one’ strategy is used to mark agreement with plural of more than two subjects. This can be done with the other verb extensions as well but the –se and –ɲger agree only with plural subjects.

KS: Here the subject is not dual, but the dual reciprocal marker is used. Is the ‘dualness’ a function of whether or not the objects are each in a dual opposition, that is to say, is it true for any pair fashioned from the four subject participants, that each pair is in a mutual kicking relationship, or is there just a lot of kicking going on amongst those participants, though one of them may not have kicked back everyone who kicked hm or her? Is this sentence bad without ‘one CONJ one’?

(b) Does this morpheme have a lexical meaning? Is it clearly or plausibly related to a lexically contentful word or morpheme? Give details as necessary.

A. Reflexives

The *nè* preposition for adverbial reflexives is used both as benefactive and instrumental preposition. *Yaa* – ‘mine/my’ is always used as a class 1a possessive pronoun but the meaning changes when it precedes or follows the object noun; possessive adjective and possessive focused adjective respectively. *Wer* – ‘ours/our’ is always used as a class 2 possessive pronoun but the meaning changes when it precedes or follows the object noun; possessive adjective and possessive focused adjective respectively. *Bo* – ‘hand’ is sub-class 1a noun, which selects class 6 for plural marking *Tu* – ‘head’ is also a sub-class 1a noun, which selects class 2 for plural marking.

With the Unique emphatic pronoun, *mnji* – ‘alone’ is a bound morpheme.

B. Reciprocals

The various reciprocal morphemes are related to lexical contentful morphemes. –ni which generally has a meaning of ‘into two’ expresses dual reciprocity. –te and –ɲger which have serial action meaning is used reciprocally when referring to mass bodies (subjects) such that the meaning is close to ‘against the other’. On the other hand, –se has a serial meaning which is close to ‘one after the other’. The ‘one CONJ one’ means ‘one another’

[KS: We will return to these distinctions when we examine the range of possible reciprocal readings]

3.5 The agreement paradigm

3.5.1 Give the morphological paradigm of each reflexive strategy.

Multi-subject marking occurs when there is agreement with the subject through the use of persons and number of the possessives preceding the body part. This is done in the way that when the subject is plural, there is plural agreement with the number of the body part as well as the possessive adjective. See examples (8a), (A7d), (13c) and (13d) above. An exception can be seen in (2a) which is used for emphasis. This means when we have a single subject, a singular body part e.g 'hand' is used. We we have many subjects, the plural of the body part e.g 'hands' is used.

Reflexives

Body part hand:

nè	yaa	bo	nè	ma	mm-bo	myself
PREP	C1a.1SG.POSS.PRN	hand	PREP	C6-1SG.POSS.PRN	C6-hands	
nè	yoo	bo	nè	mo	mm-bo	yourself
PREP	C1a.2SG.POSS.PRN	hand	PREP	C6-2SG.POSS.PRN	C6-hands	
nè	zhii	bo	nè	mi	mm-bo	herself/himself/itself /by itself
PREP	C1a.3SG.POSS.PRN	hand	PREP	C6-3SG.POSS.PRN	C6-hands	
nè	zhisò	bo	nè	misò	mm-bo	ourselves
PREP	C1a.DU.POSS.PRN	hand	PREP	C6-DU.POSS.PRN	C6-hands	
nè	mer	mm-bo				ourselves
PREP	C6.1PL.POSS.PRN	C6-hand				
nè	misèe	mm-bo				ourselves
PREP	C6-1PL.INCL.POSS.PRN	C6-hands				
nè	mee	mm-bo				yourselves
PREP	C6-2PL.POSS.PRN	C6-hands				
nè	map	mm-bo				themselves
PREP	C6-3PL.POSS.PRN	C6-hands				

Comment: Nè is used both as benefactive and instrumental preposition. Yaa, yoo, zhii and zhisò are always used as a class 1a possessive pronoun but the meaning changes when they precede or follow the object noun; possessive adjective and possessive focused adjective respectively. Ma, mo, mi, misò, mer, misèe, mee and map are always used as a class 6 possessive pronouns. The meaning also changes when they precede or follows the object noun; possessive adjective and possessive focused adjective respectively. Bo is sub-class 1a noun, which selects class 6 for plural marker m-, is doubled when the noun begins with a bilabial stop. The rest of the body parts follow this paradigm. But the default has a zero argument with the third singular *nè zhii bo* which also means by itself.

Unique emphatic pronouns.

1SG	Mamnji'
2SG	momnji'
3SG	mimnji'
DU	misòmnji'
1PL	mermnji'
1PL	misèemnji'
2PL	meemnji',
3PL	mapmnji'

Comment: The possessive forms *ma, mo* etc are all class 6 possessive pronouns, which is a plural class.

B. Reciprocals:

Verb extension –ni	'each other or each party'
Verb extension –se	'one after the other'
Verb extension –te	'each other or each party'
Verb extension –nger	'each other' (mostly inanimate subjects)
One CONJ one	'one and the other'
Zero option	'with each other'

For each morphological feature, what determines its value? (For example, agreement with the antecedent, or agreement, in the case of possessives in some languages, with the possessed N.) In particular, for each agreement feature, indicate whether it must agree with the antecedent, or perhaps with something else, and whether it must do so (a) obligatorily, or (b) usually or optionally.

Reciprocals

Suffix/phrase	Agreement feature	What it must do
-ni	dual antecedents	optional for two subjects or two parties with multiple subjects
-se	multiple antecedents	obligatory for multiple subjects
-te	dual antecedents	optional for two subjects or two parties with multiple subjects
-ŋger	multiple antecedents	obligatory for multiples subjects
One CONJ one	multiple antecedents	obligatory for multiples subjects
Zero option	dual or multiple antecedents	optional for two subjects or two parties of many subjects

No comment for reflexives.

All forms of the above features, Case, person, number and gender (and animacy or noun class, if it is marked in your language) should be given. For any features that are usually or optionally employed, provide an example of a context where the optionality holds and provide as much additional information as you suspect will be useful.

With both body parts and unique emphatic pronoun strategies, morphological agreement with the antecedent can be seen at two levels. The first level is with the number, which is linked to the noun class, and the second is with the persons. Morphological agreement with the persons is limited to the dual and first person plural inclusive of *zhisò* and *misèe* respectively. *Sò* is the dual form for personal pronoun and *zhi* is selected for a singular antecedent (though dual and for unify action) whereas *mi* is selected for plural antecedent reference. These possessives are prefixed to the dual form for the dual possessive. *Sèe* is the first person plural inclusive personal pronoun, which selects *mi* for the plural antecedent reference. For the number agreement, the singular/plural antecedent is also reflected in the singular/plural possessive form which also agrees with the class number agreement of the body parts. The difference with the unique emphatic pronouns is the mismatch at the level of the plurality of the with body parts and their possessive adjectives with single antecedents which is for emphasis.

3.6 Interaction with verb morphology - Incompatibilities

Reflexives, especially those that are attached to the verb rather than occupying an argument position, are frequently incompatible with other morphological operations that can be applied to the verb.

With reflexives I have observed verb morphology only with the verb talk e.g.

Jôn ce de'ŋger e
 John ASP.CONT talk-ITER vowel echo.
 John is talking to himself

Most of the reciprocals are attached to the verb accept the zero option which has an intrinsic reciprocity. The -ŋger suffix takes a vowel echo for some unknown reasons e.g

Bce bvi ce kùuŋger e
 Bce bvi ce kùu-ŋger e
 C2-tress C2-3PL.SM ASP.CONT knock-RECIP vowel echo
 The trees are knocking each other.

3.6.1 Tense, Mood, Aspect.

It is sometimes observed that coconstrual strategies are sensitive to the tense, mood or aspect of a clause, particularly if the aspect (whether an event is complete or not) has other syntactic effects. If there is any sign that coconstrual for some strategy is blocked or peculiar for a given tense (e.g., simple past, habitual, generic), mood (such as subjunctive, if your language marks it), or aspect, please comment and provide examples. Check with at least the verbs meaning *see*, *praise*, *help*, *like*, *know*, and *wash*.

- B3a) Ginà ke jà' zhii tu
 Gina ASP.HAB help C1a.3SG.POSS.PRN head
 Gina (generally) helps herself
- b) Ginà à sù'si nyor/ ba ce sù'si nyor
 Gina C1.3SG.SM wash body/ PST1 ASP.CONT wash body
 Gina has washed/was washing herself.
- c) Ginà à ba know zhii tu
 Gina C1.3SG.SM MOD rìŋ C1a.3SG.POSS.PRN head
 Gina should know herself.

Comment: The strategy is not blocked by any tense, mood or aspect markers.

Grammatical Function (GF)-changing - Consider GF-changing constructions or operations in your language that affect the argument structure of a verb, adding, promoting, or demoting arguments. For example, passive, antipassive, stative, benefactive, applicative, etc. Sometimes Grammatical-Function Changing ("GF-changing") morphemes, such as passive, inverse, middle, dative alternation, causative, applicative affixes or markers etc. are incompatible with a given coconstrual strategy. In other words, where the result of the GF-change has at least two arguments, check whether the GF-change is compatible with the current strategy. Manipulate the verbs meaning *talk to*, *give*, *visit*, and *kill*.

Comment: There are hardly any changes in grammatical function that affect reflexivity in Limbum.

3.6.3 (formerly 3.6.1) If you are aware of operations or morphemes that cannot co-occur with this strategy, then list them here

No Comment

3.7 Uses that are not quite coreference

The body of the questionnaire investigates uses of the identified strategies as coreference strategies, meaning that they express coreference or overlap between two logical arguments (or adjuncts) of a clause. Are there other uses of this strategy, in which it does not express coreference between two arguments or adjuncts (e.g., like locatives or directionals)? Many languages use reflexive morphology for purposes not obviously connected to reflexivization. If so, explain and provide a few examples. Some frequent uses of reflexive strategies:

A. Reflexives

The body part 'foot' is only used to express coreference that is directional as it denotes movement.

E dù Londòn nè zhii kùu
 3SG go London PREP C1a-3SG.POSS.PRN foot
 He went to London himself.

E ìm vè àfa nè zhii kùu.
 3SG PST3 come here PREP C1a-3SG.POSS.PRN foot
 He came here himself.

B. Reciprocals

The verb extension –se is used to express coreference to multiple subjects that is directional in the sense of moving one after the other.

Mbaa à nyεε bèe à da'sè
 Mbaa à nyεε bèe à da'-sè
 Leopard C1-3SG.SM appear people 3PL.SM scatter
 When the leopard appeared, the people scattered.

Bèe a ce dùse à mŋkùu
 Bèe a ce dù-se à mŋkùu
 People 3PL.SM ASP.CONT go PREP farm
 The people are going to the farm.

3.7.1 Idiosyncratic or inherent.

No comment

[KS: Are there no verbs or predicates that have reciprocal or argument reflexive forms but are not every really transitive, for example?

3.7.2 Emphatic or intensifier. As in the English, The president himself answered the phone.

Your language may also have forms that require a local antecedent but seem to indicate a relationship with an antecedent that stresses how a particular participant related to an event. We see this with constructions in English like (B1c,d)

B1c) Jôn à ìm zhe nca nè zhii cùu.

John C1.1SG.SM PST3 eat fish PREP C1a.3SG,POSS.PRN mouth

John ate fish himself.

d) Jôn ye-ye à m̄ zhe nca.

John 3SG.EMPH C1.1SG.SM PST3 eat fish

John himself ate fish.

Comment: The emphases are generally done when the personal pronouns or object pronouns are reduplicated.

Please translate (B1c,d). Which of the readings below are permitted? (English adverbial reflexives permit readings (C) and (D), but other languages permit (A) and (D) with forms that seem more like English *himself* than English *alone*.)

A) Jôn à m̄ gèe ca nè zhii bo
 John C1.1SG.SM PST3 do DEM.PROX PREP C1a.3SG.POSS.PRN. hand
 John alone did this - i.e., only John and no other individuals did this.

B) Jôn à m̄ gèe minji'
 John C1.1SG.SM PST3 do 3SG.UNIEMPH.PRO
 John did this alone - John was unaccompanied when he did this.

C) Jôn à m̄ gèe zhianà nè zhii bo
 John C1.1SG.SM PST3 do DEM.PROX PREP C1a.3SG.POSS.PRN. hand

KS: Why do you suppose the DEM.PROX is different in (C) as opposed to (A)?

John himself did this - John appearing in person did this (no one did it for him)

D) Jôn ye ye à m̄ gèe ca
 John 3SG.EMPH C1.1SG.SM PST3 do DEM.PROX

John himself did this - Even John did this (e.g. Although you would not have thought he would, John also ate the crispy jellyfish)

3.7.3 Middle.

Limbum middles can be constructed in the way that infinitives or habitual aspect must be included. The pluractional verb extension changes when a different verb is used. The combination of the -se or -ni suffixes and the infinitives in i) and ii) is what brings out the fact there is an implicit agent. The combination of the habitual aspect and the -nger suffix in iii) or just the -nger suffix in itself reveals the absence of an agent.

i. Mkar mutù ca mi yu àtèr à rcupsè
 M-kar mutù ca mi yu àtèr à r-cup-sè
 C6-tyres car DEM.PROX C6-3PL.SM be easy INF INF-change-PLU
 The tyres on this car change easily.

ii. Mkar mutù ca mi yu àtèr à rco'nì
 M-kar mutù ca mi yu àtèr à r-co'nì
 C6-tyres car DEM.PROX C6-3PL.SM be easy INF INF-remove-PLU
 The tyres on this car are easily removed.

ii. Mkar mutù ca mi ke co'nger àtèr
 Mkar mutù ca mi ke co'-nger àtèr
 C6-tyres car DEM.PROX C6-3PL.SM ASP.HAB come out-PLU easy
 The tyres of this car easily come out.

Comment: Though the verb suffixes are used to mark reciprocal actions and the reflexives make use of 'body' and 'body parts', the verb suffixes are used here as middles.

Distributive, sociative, etc. Some strategies (reciprocal markers most frequently) can also be used to mean that some action was performed separately, or jointly, or repeatedly, etc. You should only report uses that do not involve coconstrual between two logical arguments.

Reciprocals

Separately

Woowèe a caṅni a Jôn wèe
 Woowèe a caṅ-ni a Jôn wèe
 3PL 3PL.SM run-PLU CONJ John ASSO
 They competed with John in athletics.

Jointly

Woowèe a caṅse a Jôn wèe
 Woowèe a caṅ-se a Jôn wèe

3PL 3PL.SM run-PLU CONJ John ASSO

They ran together with John.

Comment: Repeatedly will involve the use of habitual aspect.

No Comment for reflexives.

3.7.5 Deictic use - If the current strategy involves a nominal form (e.g., English himself) Can this form be used when the antecedent is physically present or otherwise prominent, but has not been mentioned (such that X does not refer to Bill or Mary)? (Suggest a context if necessary).

The speaker addressee context can be used

B5a) Bîl à yɛ wɛ ka'
Bill C1.3SG.SM see 2SG NEG

Bill did not see X

b) Wà' Merì kòŋ wɛ a?

Q Mary like 2SG. Q

Does Mary like X?

Wɛ mɛ du kù baŋ nɛŋkùr a?

2SG PST2 go LOC bank yesterday Q

X went to the bank yesterday.

Can this form be used to refer to one of the participants in the conversation who is not otherwise mentioned in that sentence?

Comment: The same form can be used for B6a) but not B6b). With B6b) the tone changes from low to high.

B6a) Bîl à m̄ ɛp wɛ
Bill C1.3SG.SM PST3 insult 2SG.OBJ

Bill insulted X. (X = speaker, X = addressee)

b) Bèè magòr a kòŋ nca ka', geenewa' wɛ ke kòŋ e.

People many 3PLSM like fish NRG CONJ 2SG ASP.HAB like vowel echo

Many people do not like anchovies, but X likes them.

(X = speaker, X = addressee)

Can the form in question be used in a sense like that of English generic one?

The form in question can still be used with a high tone.

B7a) Mɛ kòŋ njèè njì ce wɛ ke làa yuu nè ŋwè ka'
1SG like manner way REL 2SG ASP.HAB say thing PREP person NEG

I don't like the way he speaks to one.

b) Ade' ŋwè fɛsinyor sê ka'

Ade' ŋwè fɛɛ-si-nyor sê ka'

Can person care-CAUS-body INTEN NEG

One cannot be too careful

Bîl ke ɛp ŋwè tɛ ŋgàŋ ka' làa yuu.

Bill ASP.HAB insult person CONJ the person can say thing.

Bill insults one before one can say a word.

The generic form is ŋwè' s anaphor is ŋgàŋ.

3.7.6 Focus.

Please translate these question-answer pairs. (Numbers are out of sequence here for a reason)

B15) ŋgǎafâ'nsuu a m̄ yɛ ba nda?

Farmers 3PL.SM PST3 see FOC Q

Who did the farmers see?

A m̄ yɛ ye.

3PL.SUB PST see 3SG.OBJ

They saw *him*.

(For example, the children are playing hide and seek in the yard, four girls and one boy, John. The farmers entered the yard but they only saw John).

B16) ŋgǎafâ'nsuu a m̄ yɛ Merì ka'. A yɛ ba ye.

Farmers 3PL.SM PST3 see Mary NEG. 3PL see FOC 3SG.OBJ

The farmers didn't see Mary. They saw *him*.

3.7.7 Other. Are there other ways to use the strategy that do not express coreference (or reciprocal coreference) between two arguments? If so, give examples and a brief explanation here.

i) Nfò ba ndi a ce de' e
 Nfor CONJ Ndi 3PL.SM ASP.CONT talk vowel echo
 Nfor and Ndi are talking to each other.

ii) Mèri ba Maatà a ce c̣̣̣
 Mary CONJ Martha 3PL.SM ASP.CONT whisper
 Mary and Martha are having secret talks.

Comment: The above used verbs as associated with speech have a basic meaning of talking to each other. The suffix *-nger* can be added when coreference is made to a single subject that is speaking to himself. In that case the verb *de'* - 'talk' can be used interchangeably with *c̣̣̣* - 'whisper'.

3.8 Proxy readings

One interpretation that the choice of coreferent strategy is sometimes sensitive to is proxy interpretation. A proxy reading is one where the coreferent argument is understood as a representation of or a "stand in" for the reference of the antecedent. This is often the case with statues, for example, or authors (e.g., Grisham) and their work. Feel free to substitute your favorite national author for Grisham.

- B8a) Kastro à ṃ gani zhii nyor enje mesum bḳablù.
 Castro C1a.1SG.SM PST3 admire C1.3SG.POSS.PRN body LOC museum wax
 Castro admired himself in the wax museum. (himself = statue of Castro)
- b) Grishàm à mbee be' zhii tu à ɲwè Swàhili ka',
 Chrisham C1.3SG.SM EVID read C1a.POSS.PRN tu CONJ person Swahili NEG.
 e ṃ banè a ku be' Swàhili
 3SG PST3 PERF EVID just read Swahili
 Grisham has not read himself in Swahili, though he has read himself in Spanish. (himself = Grisham's writings)

The differences emerge in English for cases like those in (B9). Imagine that the wax museum is having a special event, which the wax statues of each celebrity will be washed and dressed by the celebrity they represent.

- B9a) Kastro à ṃ sù'si nyor yeeni, te e bo bepsi bḳablù ka'.
 Castro C1.3SG.SM PST3 wash body carefully CONJ 3SG PERM damage wax NEG
 Castro washed himself carefully, so as not to damage the wax.
- b) Kastro à ṃ sù'si nyor yeeni, te e bo bepsi bḳablù ka'.
 Castro C1.3SG.SM PST3 wash body carefully CONJ 3SG PERM damage wax NEG
 Castro washed carefully, so as not to damage the wax.
- c) ɲwěngèmc̣ër ntatap à sù'si nyor yeeni te e bo bepsi bḳablù ka'.
 Movie star tough C1.3SG.SM dress body carefully CONJ 3SG PERM damage wax NEG
 The movie star dressed herself carefully, so as not to damage the wax.
- d) ɲwěngèmc̣ër ntatap à sù'si nyor yeeni te e bo bepsi bḳablù ka'.
 Movie star tough C1.3SG.SM dress body carefully CONJ 3SG PERM damage wax NEG
 The movie star dressed carefully, so as not to damage the wax.
- e) Kastro à ṃ ye zhii nyor nje ṣirma, geenewa' e kòŋ yuu ce
 Castro C1.3SG.SM PST3 see C1.3SG.POSS.PRN body LOC show, CONJ 3SG like thing REL
 e ṃ ye ka'
 3SG PST3 see NEG
 Castro saw himself in the show, but he didn't like what he saw.

KS: Is it the case that the use of 'x's body' is just literal here rather than reflexive per se, as in English 'he washed his body' which is not really reflexive any more than 'John washed his shovel' is. It may not be possible to tell.

B10a)	Grishàm	à	làa	ene	àde'	e	de'	Swàhili	caase
	Grishàm	à	làa	e-ne	àde'	e	de'	Swàhili	caase
	Grisham	C1.3SG.SM	say	3SG.SP.INTRO	can	3SG	talk	Swahili	better
	Grisham says he sounds better in Swahili. (where <u>he</u> = Grisham's writings)								
b)	Kastro	à	òn	kwà'	ene	e	kè'	mbòḡmboḡ.	
	Kastro	à	òn	kwà'	e-ne	e	kè'	mbòḡmboḡ.	
	Castro	C1.3SG.SM	PST3	think	3SG.COMP		3SG	look	handsome
	Castro thought that he looked handsome. (<u>he</u> = statue of Castro)								

KS: Would you use a different 3sg subject pronoun if 'he' referred to Castro the person, not the statue?

Proxy readings for reciprocals. For (B11a), once again the antecedents are the authors and each other describes the works these authors have written, such that Mark Twain did not read Victor Hugo's novels in Swahili and Victor Hugo did not read Mark Twain's novels in Berber. For (B11b), imagine a show where there are actors masquerading as our two protagonists. The first each other refers to the person Marlene and Castro, but the second each other refers to the actors (or statues) representing them on the stage or in the show.

B11a)	Mak Twen	ba	Viktò Hugò	a	mbee	be'	ḡwà'	ese	mò'	à	rli-berbà	ka'
	Mark Twain	CONJ	Victor Hugo	3PLSM	NEG	read	book	PREP	one	ADV	Language-Berber	NEG
	Mark Twain and Victor Hugo did not read each other in Berber.											
b)	Malin	ba	Kastro	a	yeni	amæ	bèe	ka',	geenewa'	a	yeni	
	Malin	ba	Kastro	a	ye-ni	amæ	bèe	ka',	geenewa'	a	ye-ni	
	Marlene	CONJ	Castro	3PL.SM	see-RCM	LOC	people	NEG,	CONJ	3PL.	see-RCM	
	kùntombì	bèe/	nje	sìrma								
	kùntombì	bèe/	nje	sìrma								
	LOC	people/	LOC	show.								
	Marlene and Castro did not see each other in the audience, but they did see each other on the stage/in the show.											

KS: B11b appears to be a proxy reading in the relevant sense, but B11a looks like a circumlocution.

3.9 Ellipsis

Consider the following examples, which all have an ellipsis of one sort or another. In (B12), there is missing structure that is parallel or identical to stated structure and it is interpreted as if it is there.

B12a)	Shemàn	ke	kòḡ/nàa	zhii	tu	caa	Bìl				
	Sherman	ASP.HAB	like/praise	C1a.3SG.POSS.PRN	head	pass	Bill				
	Sherman likes/praises himself more than Bill										
b)	Shemàn	ke	kòḡ/nàa	zhii	tu	caa	àmbò	Bìl	e	ke	mòo
	Sherman	ASP.HAB	like/praise	C1a.3SG.POSS.PRN	head	pass	ADV	Bill	3SG	ASP.HAB	try
	Sherman likes/praises himself more than Bill does.										
i.	Shemàn	ke	kòḡ/nàa	zhii	tu	caa	àmbò	ye	Shemàn	kòḡ	Bìl
	Sherman	ASP.HAB	like/praise	C1a.3SG.POSS.PRN	head	pass	ADV	3SG.OBJ	Sherman	likes	Bill
	Sherman likes/praises himself more than <i>Sherman likes</i> Bill.										
ii.	Shemàn	ke	kòḡ/nàa	zhii	tu	caa	àmbò	Bìl	kòḡ	ye.	
	Sherman	ASP.HAB	like/praise	C1a.3SG.POSS.PRN	head	pass	ADV	Bill	likes	3SG.OBJ	
	Sherman likes/praises himself more than Bill <i>likes him</i> (= Sherman).										
iii.	Shemàn	ke	kòḡ/nàa	zhii	tu	caa	àmbò	Bìl	kòḡ	zhii	tu
	Sherman	ASP.HAB	like/praise	C1a.3SG.POSS.PRN	head	pass	ADV	Bill	likes	C1a.3SG.POSS.PRN	head
	Sherman likes/praises himself more than Bill <i>likes himself</i> .										

Please try to formulate sentences like those in (B12a) (an/or B12b, if that is possible) trying out each of the non-reciprocal strategies in the first clause and determining for each strategy which of the readings i-iii. are possible. If you have several strategies in your language, then we expect you will have many examples as translations of (12a,b) for whatever verb works with the strategy in question. Please adjust the examples to use appropriate verbs for the strategy you are testing, and if there are generalizations about which verbs go with which strategies more successfully, that would be very interesting to know. Remember to try both affixal and argument anaphor strategies, if your language has both.

iv.	Sàmsìn	ke	zhe	kwâa	caa	Jôn
	Samson	ASP.HAB	eat	maize	pass	John

Samson eats corn more than John

v. Pól ke dù ntaa caa àmbò bèe a ke dù.
 Paul ASP.HAB go market pass ADV people 3PL.SM ASP.HAB go
 Paul goes to the market more than people do go.

vi. Ndì ke taŋ buu àmbò She ke taŋ ka'
 Ndi ASP.HAB fight things ADV Shey ASP.HAB fight not.
 Ndi does not strife for things as Shey does.

PART 4 Exploration of syntactic domains

To show how we would like you to proceed in this section, we begin with a relatively simple elicitation. Construct a relatively simple transitive sentence, such as John hit Bill, providing gloss and translation. Now use each coreference strategy in your list to change the sentence you constructed into a reflexive. For example, for a sentence like John hit X where X is John, try each strategy and determine whether or not the outcome is successful for a reflexive or reciprocal reading. For English, we might describe four strategies as IMPLICIT, X-SELF, EACH-O and O-another (one another) as well as the pronominal strategy which, in English, does not normally work for coargument coreference. As a native English speaker, I might respond as follows.

X1a) Jôn à lîp i
 John C1.3SG.SM hit vowel ehcho
 *John hit.

Comment: This is acceptable in Limbim

b) Jôn à lip zhii kùu nè zhii bo.
 John C1.3SG.SM hit C1a.POSS.ADJ leg PREP C1a.POSS.ADJ hand
 John hit himself.

Comment: In Limbum the body part affected must be named and not the whole body.

c) Boombaŋrù a m̄ lîp i
 C2-Boys 3PL.SM PST3 hit vowel echo
 *The boys hit.

d) Boombaŋrù a lîpni i
 Boombaŋrù a lîp-ni i
 C2-Boys 3PL.SM hit-RECIP vowel echo
 The boys hit each other.

e) Boombaŋrù a lîpni mò' ba mò'
 Boombaŋrù a lîp-ni mò' ba mò'
 C2-Boys 3PL.SM hit-RECIP one CONJ one
 The boys hit one another.

f) Boombaŋrù a m̄ lîp ye
 C2-Boys 3PL.SM PST3 hit 3SG.OBJ
 *John hit him

Remarks: Example (X1c) is not possible with any interpretation, reciprocal or reflexive. The IMPLICIT strategy is limited to certain verb classes, as mentioned in section 2.1.3.

Now suppose that the verb chosen had been wash. As a native English speaker, I might respond as follows.

X2a) Jôn à m̄ sù' si nyor.
 John C1.3SG.SM PST3 wash body
 John washed.

bi) Jôn à m̄ sù' si zhii nyor.
 John C1.3SG.SM PST3 wash C1.3SG.POSS.ADJ body
 John washed himself.

bii) Jôn à m̄ sù' si nyor zhii
 John C1.3SG.SM PST3 wash body C1.3SG.POSS.ADJ
 John washed himself.

c) Boombaŋrù a m̄ sù'si wap mnyor
 Boombaŋrù a m̄ sù'si wap m-nyor
 Boys 3PL.SM PST3 wash C6.3PL.POSS.ADJ C6-bodies

- The boys washed.
- d) Boombaŋrù a ò sù'si mnyor ese mò' ba mò'.
 Boombaŋrù a ò sù'si m-nyor ese mò' ba mò'.
 Boys 3PL.SM PST3 wash C6-bodies PREP one CONJ one
 The boys washed each other.
- e) Boombaŋrù a ò sù'si mnyor mò' ba mò'.
 Boombaŋrù a ò sù'si m-nyor mò' ba mò'.
 Boys 3PL.SM PST3 wash C6-bodies one CONJ one
 The boys washed one another.
- f) Jôn à ò sù' si ye.
 John C1.3SG.SM PST3 wash 3SG.OBJ
 *John washed him.

Comment: Examples (X2c-e) shows that the verb *sù' si* does not take the reciprocal suffix *-ni* or *-se* but will prefer the 'one CONJ one' strategy.

Now suppose the example is constructed as follows, where what we are seeking to test is whether or not the possessive of an argument of the main predicate (verb in this case) can be represented by one of the coreference strategies that we have identified as holding between coarguments.

- X3a) Jôn à ye zhii ma bi ye
 John C1.3SG.SM see C1.3SG.POSS.ADJ mother born 3SG.OBJ
 *John saw himself's mother.
- b) Jôn à ò sù' si ma.
 John C1.3SG.SM PST3 wash mother
 *John washed mother,
- c) Jôn a Bîl a yeŋi a wap mmâ.
 Jôn a Bîl a yeŋ-ni a wap m-mâ.
 John CONJ Bill 3PL.SM see-RECIP PREP C6-3PL.POSS.ADJ C6-mothers
 ?John and Bill saw each other's mother.
- d) Jôn a Bîl a yeŋi a ma zhii mò' ba mò'.
 Jôn a Bîl a yeŋ-ni a ma zhii mò' ba mò'.
 John CONJ Bill 3PL.SM see-RECIP PREP mother C1.3SG.POSS.ADJ one CONJ one
 ?*John and Bill saw one another's mother.
- e) Jôn a Bîl a ye yàp mâ.
 John CONJ Bill 3PL.SM see C1.3PL.POSS.ADJ mother
 John and Bill saw their mother.
- f) Jôn à ò sù'si/ye zhii mâ.
 John C1-3SG.SM PST3 wash/see C1.3SG.POSS.ADJ mother
 John washed/saw his mother.

4.1 Clausemate coconstrual

4.1.1 Verb class restrictions

4.1.1.1 Canonical transitives - Can this strategy be used with ordinary transitive verbs, such as the verb meaning "see"? Give some examples, including the following.

- C1a) Bob à ò ye Jôn
 Bob C1.3SG.SM PST3 see John
 Bob saw John.
- b) Bbyèŋge a ò suŋ àmbò ŋkɛɛ
 Women 3PL.SM PST3 talk ADV chief
 The women described the chief.
- c) Wèe à tashi mbɛ
 Wèe à ta-shi mbɛ
 2PL C1.2PL.SM kick-PLU goat
 You(pl.) kicked X.
- d) Woowèe a nàa Nyè'

- 3PL 3PL.SM praise God
They praised X
- e) E tuusi ɲwà'
E tuu-si ɲwà'
3SG send-CAUS letter
He sent a letter
- f) Mè mɛ teni ntaanguu
Mè mɛ te-ni ntaanguu
1SG. PST2 cut-DU stick
I cut the stick.
- g) Mè mɛ koo mbaa
1SG PST2 catch leopard
I caught a leopard.
- h) Mèri ce kuɲri bcòcò
Mèri ce kuɲ-ri b-còcò
Mary ASP.CONT scoop-ITER C2-grass
Mary is scooping the grass.
- i) Fràncis ce gwàte bce
Fràncis ce gwa`te b-ce
Francis ASP.CONT fell-PLU C2-trees
Francis is felling the trees.

4.1.1.2 Commonly reflexive predicates - Can this strategy be used with verbs of grooming, inalienable-possession objects, etc? Give judgements on the following. Provide some additional examples of your own.

- C3a) Donnà à m̄ sù'si nyor.
Donna C1.3SG.SM PST3 wash body
Donna washed X. (X = Donna)
- b) Don à m̄ kooshi tu
Don à m̄ koo-shi tu
Don C1.3SG.SM PST3 cut-ITER head
Don cut X's hair. (X = Don).
- c) Muunje à m̄ læ nyor
girl C1.3SG.SM PST3 cut body
The girl cut X [unintentionally] (X = the girl)

Comment: In Limbum, the addition of the possessives in (C3a-b) will mean the subject was expecting someone to do it and then did it himself or the action is focused on the doing only for him whereas adding the body part 'hand' excludes the fact that another subject did it. The addition of a possessive or the body part 'hand' to (C3c) changes the meaning from unintentionally to intentionally.

- d) Emmà à tee tu
Emma C1.3SG.SM redeemed head
Emma has redeemed herself.
- e) Jôn à tee ntukùu
John C1.3SG.SM stub toe
John has stubbed his toe.
- f) Mèri à tee ntubo
Mary C1.3SG.SM cut finger
Mary has cut her finger.
- g) Jôn ke nàanyor sê.
Jôn ke nàa-nyor sê.
John ASP.HAB proud INTEN
John is very proud of himself.

Comment: Although the verbs used above look like homophones, but they are semantically related.

4.1.1.3 Psychological predicates. Please provide examples for verbs like those below, even if nothing exact seems appropriate for the current strategy, marking them according to the level of their acceptability based on the scale given above.

- C4a) Jôn ke bàa/wep buubkuu
 John ASP.HAB hate/wep bedbugs
 John hates/fears bedbugs
 Acceptable in Limbum with the two verbs
- b) Rìtu zhi ce koo Jôn nè bvi blaba' brɛɛ
 Rìtu zhi ce koo Jôn nè bvi b-laba' b-rɛɛ
 Shame C7.3SG.SM ASP.CONT catch John PREP C2.3SG.POSS.ADJ C2-shoes C2-old
 John is ashamed of his old shoes.
 Word order not acceptable in Limbum
- c) Yaŋ Merì zhi ce fa Jôn ŋɛɛ'.
 Illness Mary C1a.3SG.SM ASP.CONT give John worry
 John is worried about Mary's illness
 Word order not acceptable in Limbum
- d) Jôn ce nàatu àmbò Merì.
 John ASP.CONT proud ADV Mary
 John is proud of X
- e) Jôn ke fa ŋɛɛ' nè Pità.
 John ASP.HAB give trouble PREP Pità
 John worries/troubles Peter
- f) Jôn ke gèe Pità ce yu' rbòŋ.
 John ASP.HAB make Peter ASP.CONT feel happy
 John pleases Peter.

4.1.1.4 Creation and destruction predicates. Provide examples in addition to (C5) using verbs of creation (e.g., "sew", "make", "form") or destruction (e.g. "kill", "eliminate", "make disappear").

- C5a) Njeŋwè anà be bepsi kèŋ.
 Njeŋwè anà be bep-si kèŋ.
 Woman ANA.DET FUT1 destroy-CAUS door
 The women will destroy the door.
- b) Mmàshin bvi m̄ boo nè map mmbo.
 Mmàshin bvi m̄ boo nè map mm-bo.
 C6-machine C6-3PL.SM PST3 build PREP C6-3PL.POSS.ADJ C6-hands
 The machines built X (X = themselves)
- c) Tèlò à m̄ tarshi bcè.
 Tèlò à m̄ tar-shi b-cè.
 Tailor C1.3SG.SM PST3 sew-PLU C2-clothes
 The tailor sew the clothes.
- d) Pôl rìŋ à rkupshi mkar
 Pôl rìŋ à rkup-shi m-kar
 Paul know INF. INF-make-PLU C6-wheels
 Paul knows how to make wheels.
- e) Mbaa à zhɛ nyo.
 Leopard C1.3SG.SM kill snake
 The leopard has killed a snake.
- f) A fɛr tim yàp
 3PL eliminate team C1.3PL.POSS.FOC.ADJ
 Their team has been eliminated.
- g) ŋwèfii be bɛsi laba'.
 ŋwèfii be bɛ-si laba'.
 Magician FUT1 make disappear-CAUS shoe.
 The magician will make the shoe to disappear.

4.1.1.5 Verbs of representation. Reflexive versions of these verbs include instances where individuals act on their own behalf, rather than have someone act in their name or for them.

- C6a) Boombaŋrù a tɛɛ à btu wap

Boombanjrù a tɛɛ à b-tu wap
 Boys 3PL.SM represent PREP C2-heads C2-3PL.POSS.ADJ
 The boys represented themselves.

- b) Jôn à làa ekù zhii cùu.
 John C1.3SG.SM speak PREP C1a.3SG.POSS.ADJ mounth
 John spoke for himself.

Comment: Since there are no nuances in (C6b) as to the person who is speaking, the possessive must not be focused. But if the possessive in C6a is not focused, then it will mean the boys represented others.

4.1.2 Argument position pairings

4.1.2.1 Subject-indirect object - The preceding questions asked mostly about subject-object coreference. Can this strategy be used to express coreference between a subject and an indirect object? Choose verbs that have an indirect object in your language.

C7a) Merì à m̀ nòŋsi bkèe nè zhii tu.
 Merì à m̀ nòŋsi bkèe nè zhii tu.
 Mary C1.3SG.SM PST3 keep gifts PREP C1a.3SG.POSS.ADJ head
 Mary kept the gift to X (X = Mary)

- b) Jôn à m̀ kù'si ŋgwe à mmbò mmi.
 Jôn à m̀ kù'-si ŋgwe à mm-bò mmi.
 John C1.3SG.SM PST3 breed-CAUS dog PREP C6-hands C6-1SG.POSS.FOC.ADJ
 John bred the dog X (X = John)

For comparison, also provide judgements for the following:

C8a) Merì à fa zhii tu à bsàki
 Merì à fa zhii tu à bsàki
 Mary C1.3SG.SM give C1a.3SG.POSS.ADJ head PREP prostitution.
 Mary gave X into prostitution (X = Mary)

- b) Jôn à dùŋshi bvi bsii nè boo.
 Jôn C1.3SG.SM show C2.3SG.POSS.ADJ C2-face PREP children
 John showed X to the children (X = John)

Comment: In (C7a) we can see that 'give' cannot be used in a long distance anaphora and can only be accepted within the same domain as in (C8a). Hence I changed the verb 'give'. With the 'show oneself', (C8b) I have realized the use of another body part 'face' which I did mention above.

4.1.2.2 Oblique arguments - Give some examples with oblique arguments, in whatever forms your language allows. Choose verbs that take oblique arguments in your language and if your language has morphological case, look for arguments that are not in the normal case for objects (e.g., not in the Accusative)..

C9a) Accusative Dàn à de' Merì
 Dan C1.3SG.SM talk Mary.
 Dan has scolded Mary.

- b) Dative Fa mè ŋwà' cà.
 Give 1SG book DEM.DIS
 Give that book to me.

c) Object of Prep Fa kèr nòŋsi mbe mě ndùu ka'
 Fa kèr nòŋ-si mbe mě ndùu ka'
 NEG again place-CAUS PREP 1SG.POSS.ADJ top NEG
 Don't place it on me again.

- d) Disjunctive Mè kòŋ yaa ba mdip
 1SG like 1SG.POSS FOC water
 Me, I prefer water.

4.1.2.3 Subject-adjunct - Provide some examples of coreference between a subject and an adjunct, e.g., a locative PP. If appropriate translations are not prepositional objects, try to construct appropriate examples.

C10a) Merì à ye nyo mbe yě njì
 Mary C1.3SG.SM see snake PREP 3SG.POSS back

- Mary saw a snake behind X (X = Mary)
- b) Merì à ke' mè du kuu kɪŋfèr embe ɲwà' àmbò ye.
 Mary C1.3SG.SM call 1SG go concern story LOC paper PREP 3SG.OBJ
 Mary called me because of an article about X (X = Mary)
- c) Jôn à jùu mbɛ embe yě ɲka'.
 John C1.3SG.SM chase goats LOC 3SG.POSS fence
 John chased the goats from his farm.
- d) Wèr à mɛ ye buu nje yer kòp.
 1PL 1PL.SM PST2 see squirrel LOC C1a.1PL.POSS.ADJ forest
 We saw a squirrel in our forest.

4.1.2.4 Ditransitives and double complements- Can the strategy be used to indicate coreference between the two non-subject arguments of a verb?. If there is more than one way to express the two non-subject arguments of a verb like "give", give examples for each type of construction. In English, for example, we would want examples both of the type "show Hal the book" and "show the book to Hal." (where X = Hal for C11a-d). For example, for (C11c), Bill gave Hal himself, which is admittedly pragmatically awkward, but imagine for (C11a) that Mary is showing Hal his image in the mirror - imagine Hal had never seen a mirror before.

- C11a) Merì à dùŋshi nè Hâl yeye
 Merì à dùŋshi nè Hâl ye-ye
 Mary C1.3SG.SM show PREP Hal 3SG-ASSO
 Mary showed Hal to X. (too)
- b) Merì à dùŋshi seesê ba nè Hâl
 Mary C1.3SG.SM show ADV FOC PREP Hal
 Mary showed X to Hal. (particularly)
- c) Bîl à fa nè Hâl seesê.
 Bill C1.3SG.SM give PREP Hal 3SG.ADJ.
 Bill gave Hal X. (in person/particular)
- d) Bîl à fa seesê ba nè Hâl.
 Bill C1.3SG.SM give ADV FOC PREP Hal
 Bill gave X Hal.
- e.i) Merì à m̄ suŋ boombaŋrù àmbò wap btu.
 Mary C1.3SG.SM PST3 tell boys ADV C2.3PL.POSS.ADJ C2-heads
 Mary told the boys about themselves/each other.
- e.ii) Merì à m̄ bipshi nè boombaŋrù àmbò mò' ba mò'.
 Mary C1.3SG.SM PST3 ask PREP boys ADV one CONJ one
 Mary told the boys about themselves/each other.
- f) Merì à m̄ dùŋshi/suŋ rlii boombaŋrù nè mò' ba mò'.
 Mary C1.3SG.SM PST3 show/introduced/presented boys PREP one CONJ one
 Mary showed/introduced/presented the boys to each other.

Comment; Take note of new strategies yeye – ' he/she too' which is a reduplication of the 3SG object pronoun and seesê which is either an adverb or and adjective depending on where it occurs and the use of the focus markers as well.

4.1.2.5 Two internal arguments or adjuncts - Consider coreference between two arguments of adjunct NPs in the same clause, neither of which is a subject and neither of which is a direct object (if your language has such constructions - if not just say so and move on). Consider X = Hal in (C12).

- C12a) Bîl à suŋ àmbò Hâl nè ye seesê.
 Bill C1.3SG.SM talk ADV Hal PREP 3SG.OBJ 3SG.ADJ
 Bill talked about Hal to X. (in person)
- b) Bîl à suŋ àmbò yeye Hâl.
 Bîl à suŋ àmbò ye-ye Hâl.
 Bill C1.3SG.SM talk ADV 3SG-ASSO Hal
 Mary talked about X to Hal.
- c) Bîl à suŋ Hâl àmbò zhii tu
 Bill C1.3SG.SM talk Hal PREP C1a.3SG.POSS.ADJ head
 Mary talked to Hal about X
- d) Bîl à suŋ seesê ba àmbò Hâl.

Bill C1.3SG.SM talk ADV FOC PREP Hal
Mary talked to X about Hal.

4.1.2.6 Clausemate noncoarguments

Possessives - Give examples based on the following sentences, and/or by constructing analogous examples from reflexive sentences from the previous sections. For each of (C13) and (C14), X = Nick.

- C13a) Nik à m tɛlɛfon ma zhii
Nick C1.3SG.SM PST3 telephone mother C1.3SG.POSS.FOC.ADJ
Nick telephoned X's mother.
- b) Nik à m shwà' tu zhii
Nick C1.3SG.SM PST3 comb head C1a.3SG.POSS.FOC.ADJ
Nick combed X's hair.
- c) Nik à m de' a zhii tarfà'.
Nick C1.3SG.SM PST3 talk PREP C1a.3SG.POSS.ADJ boss
Nick spoke to X's boss.
- d) Nik à m nòŋsi zhii ŋwà' mbendùu tebùr.
Nick à m nòŋ-si zhii ŋwà' mbendùu tebùr.
Nick C1.3SG.SM PST3 keep-CAUS C1a.3SG.POSS.ADJ book LOC table
Nick put X's book on the table.
- e) ŋkæ à m fa Nik bkù' fa yě là'.
Chief C1.3SG.SM PST3 give Nick price LOC 3SG.POSS village
The king gave Nick a prize in X's village.
- f) Boombaŋrù a sù'si wap bsii.
Boys 3PL.SM wash C2-3PL.POSS.ADJ C2-face
The boys washed X's face.
- C14a) Tar zhì Nik ke gain ye.
Father C1.3SG.POSS.FOC.ADJ Nick ASP.HAB admire 3SG.OBJ
Nick's father admires X.
- b) Bfaa Nik bvi jepsi ye.
B-faa Nik bvi jep-si ye.
C2-Ambition Nick C2.3SG.SM destroy-CAUS 3SG.OBJ
Nick's ambition destroyed X.
- c) Ma zhì Nik à fyèni mutù Nik.
Mother C1.3SG.POSS.FOC.ADJ Nick C1.3SG.SM sell car Nick
Nick's mother sold X's car.

Note in (C14a) that possession is marked by a rising tone.

Please provide translations and judgments for the following examples where the plural pronoun is coconstrued with the boys or the politicians.

- X20a.i) Boombaŋrù a m ye mlèshi mmap
Boombaŋrù a m ye m-lèshi mmap
Boys 3PL.SM PST3 see C6-pictures C6-3PL.POSS.FOC.ADJ
The boys saw pictures of themselves/them
- a.ii) Boombaŋrù a m ye mlèŋshi ese mò' ba mò'.
Boombaŋrù a m ye m-lèŋshi ese mò' ba mò'.
Boys 3PL.SM PST3 see C6-pictures PREP one CONJ one
The boys saw pictures of each other.
- b.i) Merì à m suŋ boombaŋrù àmbò map mlèŋshi
Merì à m suŋ boombaŋrù àmbò map m-lèŋshi
Mary C1.3SG.SM PST3 tell boys PREP C6-3PL.POSS.ADJ C6-pictures
Mary told the boys about pictures of themselves/them
- b.ii) Merì à m suŋ boombaŋrù àmbò mlèŋshi mò' ba mò'.
Merì à m suŋ boombaŋrù àmbò m-lèŋshi mò' ba mò'.
Mary C1.3SG.SM PST3 tell boys PREP C6-pictures one CONJ one
Mary told the boys about pictures of each other

Comment; The reflexive reading cannot be the same as the former because it carries the meaning of each of the boys bringing pictures of the themselves or pictures of each of them.

- c) ŋgäapolitik a m tami mò' ba mò'.

- Politicians 3PL.SM PST3 plan attacks one CONJ one
The politicians planned attacks against each other.
- di) Ɔgãapolitik a m̄ faani àm̄ wap mnyor
Ɔgãapolitik a m̄ faa-ni àm̄ wap m-nyor
Politicians 3PL.SM PST3 faked/simulated attacks-DU PREP C6.3PL.POSS.ADJ C6-bodies
The politicians faked/simulated attacks against themselves.
- d.ii Ɔgãapolitik a m̄ faa à rniŋ woowèe.
Ɔgãapolitik a m̄ faa à r-niŋ woowèe.
Politicians 3PL.SM PST3 faked/simulated INF INF-enter them
The politicians faked/simulated attacks against them.

Comment; The dual reciprocal meaning see with the use of –ni in (d.i) indicates division into two camps will match with 'themselves' rather than 'them' as them will mean others and not the subjects of the antecedent.

4.1.2.7 Demoted arguments - Refer back to the range of grammatical function-changing operations (such as passive, antipassive, applicative, possessor ascension, dative alternation) that you considered for section 3.6 (if you did that). For each one, construct some representative non-reflexive examples. Then apply each coreference strategy to various pairs of arguments and report their grammaticality status. It might be easier to go back to 3.6 to do what is asked there once you have done this section.

Example: (C15a-c) have been passivized. If your language has passive, construct reflexive and non-reflexive versions of each one as above. For English, the by-phrases in (C15a,b) are not interpretable as "alone" (see 3.6) and are not generally regarded as acceptable with by herself.

- C15a) Pòli à nàa zhii tu
Polly C1.3SG.SM praise C1a.3SG.POSS.ADJ head
Polly was praised by X
- b) Pòli à jà' zhii tu
Polly C1.3SG.SM help C1a.3SG.POSS.ADJ head
Polly was helped by X
- c) Pòli rìŋ m̄chàr àmbò zhii tu
Polly know little ADV C1a.3SG.POSS.ADJ head
Little is known by Polly about X (X = Polly)
- d) Kàablù zhi sèbri nè zhii bo
Wax C7.3SG.SM melt PREP C1a.3SG.POSS.ADJ hand
The wax melted itself

Comment; Passive constructions cannot be done in Limbum. With any constructions requiring the use of 'by' the body parts are used. In case of an odd agency, the causative marker –si is used in place of the –ri (though not suffixed) and the body part will be changed from 'hand' to 'body'.

There are more subtle cases, like (C15d), where the interpretation is not equivalent to "the wax melted", but requires an odd agency for the subject such that it acted on itself to melt itself. The latter interpretation requires some sort of animacy for the subject, but the problem for C15d in this regard is can be mitigated, insofar as it is possible to imagine a fairy story in which an animate wax character Max commits suicide, hence Max melted himself.

4.1.3 Properties of antecedents

4.1.3.1 Pronouns, person and number - Consider all possible person/number combinations for the subject of the following sentences.

- C16a) Mè /M m̄ ye yàa nyor
1SG PST3 see C1-1SG.POSS.ADJ body
I saw X.
- b) Wè / À m̄ ye yòo nyor
2SG PST3 see C1-2SG.POSS.ADJ body
You saw X. (etc.)
- c) E m̄ ye zhii nyor
3SG PST3 see C1-3SG.POSS.ADJ body
He saw X
- d) Sò à m̄ ye bvisò mnyor
Sò à m̄ ye bvisò m-nyor
DU DU.SM PST3 see C6-DU.POSS.ADJ C6-bodies
1SG+2SG saw X
- e) Wèr à m̄ ye wer mnyor

- Wèr à m̄ yɛ wer m-nyor
 1PL 1PL.SM PST3 see C6-1PL.POSS.ADJ C6-bodies
 1PL saw X
- f) Wèr ye à m̄ yɛ wer mnyor
 Wèr ye à m̄ yɛ wer m-nyor
 1PL 3PL.SM PST3 see C6-1PL.POSS.ADJ C6-bodies
 1PL + 3SG saw X
- g) Wèr woowèe à m̄ yɛ wer mnyor
 Wèr woowèe à m̄ yɛ wer m-nyor
 1PL 3PL.SM PST3 see C6-1PL.POSS.ADJ C6-bodies
 1PL + 3PL saw X
- h) Sèe à m̄ yɛ bvisèe mnyor
 Sèe à m̄ yɛ bvisèe m-nyor
 1PL.INCL 3PL.SM PST3 see C6-1PL.INCL.POSS.ADJ C6-bodies
 1SG + 2PL/1PL + 2SG/1PL + 2PL saw
- i) Sèe woowèe à m̄ yɛ bvisèe mnyor
 Sèe woowèe à m̄ yɛ bvisèe m-nyor
 1PL.EXCL 3PL.SM PST3 see C6-1PL.EXCLPOSS.ADJ C6-bodies
 1PL.INCL + 3PL saw X.
- j) Wèe à m̄ yɛ wee mnyor
 Wèe à m̄ yɛ wee m-nyor
 2PL 2PL.SM PST3 see C6-2PL.POSS.ADJ C6-bodies
 2PL saw X
- k) Wèe ye à m̄ yɛ wee mnyor
 Wèe ye à m̄ yɛ wee m-nyor
 2PL 2PL.SM PST3 see C6-2PL.POSS.ADJ C6-bodies
 2PL + 3SG saw
- l) Wèe woowèe à m̄ yɛ wee mnyor
 Wèe woowèe à m̄ yɛ wee m-nyor
 2PL 2PL.SM PST3 see C6-2PL.POSS.ADJ C6-bodies
 2PL + 3PL saw X
- m) Woowèe / A a m̄ yɛ wap mnyor
 Woowèe / A a m̄ yɛ wap m-nyor
 3PL 3PL.SM PST3 see C6-3PL.POSS.ADJ C6-bodies
 3PL saw X

Comment; This exercise is also useful because it clearly brings out the mismatch of the subject markers vis-a-vis their noun classes. The mismatch between the class 2 possessive inclusive of bvisò and bvisèe with class 6-inclusive possessive misò and misèe can also be seen here. Repeat with the following sentences, or other suitable examples from section 4.1.1.

- C17a) Mè m̄ sù'si bcè'.
 Mè m̄ sù'si b-cè'.
 1SG. PST3 wash C2-clothes
 I washed X.
- b) M bàa nyàanyo
 M bàa nyàa-nyo
 1SG hate meat-snake
 I hate X.
- c) Mè m̄ suŋ Jôn àmbò wɛɛ
 1SG PST3 tell John PREP hunt
 I told John about X
- d) Mè m̄ yɛ nyo àgee ye
 1SG m̄ see snake LOC 3SG.OBJ
 I saw a snake near X
- e) Yàa mandap kòŋ mè.
 C1.1SG.POSS.ADJ girlfriend like 1SG.
 I am liked by X.
- f) Mè m̄ tèlèfon yàa mâ.

- 1SG. m̄ telephone C1.1SG.POSS.ADJ mother
I telephoned X's mother
- g) Yàa ta ke gani m̄.
C1.1SG.POSS.ADJ father ASP.HAB admire 1SG
My father admires X

4.1.3.2 Animacy or humanity- If animacy plays a role in choice of strategy or if a strategy is restricted to human (or metaphorically human) entities, please give examples showing both success and failure of the strategy in a way that illustrates the difference.

- C18a) Mghàghar mi ke k̄ti nè zhi bo
C6-History C6-3PL.SM ASP.HAB repeat PREP C1a.3SG.POSS.ADJ hand
History repeats X
- b) Njèe nca ca zhi ke b̄esi zhi tu à nca zhe
Type fish DEM.PROX C7-3SG.SM ASP.HAB turn C1a-3SG.POSS.ADJ head PREP fish eat
mo'
other
This type of fish cannibalizes X
- c) M̄ashin ca ke bep nè zhi bo
Machine DEM.PROX ASP.HAB spoil PREP C1a.3SG.POSS.ADJ hand
This machine destroys X (e.g., after you use it)

Comment: As a result of inanimacy, the body part 'hand' is used as in (C18a) and (C18c). With animate subjects, the body part 'head' is used as in (C18b).

Pronoun types - If your language has more than one class of subject pronouns (e.g., clitic and non-clitic), repeat the tests of the previous section for each type. Also repeat for null pronouns, if applicable.

A. Speech introducers:

	Indirect speech				direct speech/quotes
a)	M̄e	làa	mene		menê:
	M̄e	làa	m̄e-n̄e		
	1SG	say	1SG.SP.INTRO		
b)	W̄e	làa	wene		wenê:
	W̄e	làa	w̄e-n̄e		
	2SG	say	2SG.SP.INTRO		
c)	E	làa	ene		enê:
	E	làa	e-n̄e		
	3SG	say	3SG.SP.INTRO		
d)	Zhi	làa	zhine		zhinê:
	Zhi	làa	zhi-n̄e		
	3SG	say	3SG.SP.INTRO		
d)	S̄o	à	làa	sone	sonê:
	S̄o	à	làa	so-n̄e	
	DU	DU.SM	say	DU.SP.INTRO	
e)	W̄er	à	làa	werne	wernê:
	W̄er	à	làa	wer-n̄e	
	1PL	1PL.SM	say	1PL.SP.INTRO	
f)	S̄e	à	làa	seene	seenê:
	S̄e	à	làa	see-n̄e	
	1PL.INCL	1PL.SM	say	1PL.INCL.SP.INTRO	
g)	W̄èe	à	làa	weene	weenê:
	W̄èe	à	làa	wee-n̄e	
	2PL	2PL.SM	say	2PL.SP.INTRO	
h)	Woow̄e	a	làa	ane	anê:
	Woow̄e	a	làa	a-n̄e	
	3PL	3PL.SM	say	3PL.SP.INTRO	

Comment: I distinguish speech introducers from complementisers because the speech introducers have these direct quote forms with the rising tone. The forms of the complementisers are the same as the forms of the indirect quotes.

Clitization of WH-questions:

- | | | | | |
|----|----------|--------|--------|--------|
|) | Mè | làa | mεke | |
| | Mè | làa | mε-ke | |
| | 1SG | say | 1SG.Q | |
| b) | Wè | làa | wεke | |
| | Wè | làa | wε-ke | |
| | 2SG | say | 2SG.Q | |
| c) | E | làa | eke | |
| | E | làa | e-ke | |
| | 3SG | say | 3SG.Q | |
| d) | Zhi | làa | zhike | |
| | Zhi | làa | zhi-ke | |
| | 3SG | say | 3SG.Q | |
| d) | Sò | à | làa | sokε |
| | Sò | à | làa | so-ke |
| | DU | DU.SM | say | DU.Q |
| e) | Wèr | à | làa | wεke |
| | Wèr | à | làa | wε-ke |
| | 1PL | 1PL.SM | say | 1PL.Q |
| f) | Sèe | à | làa | seekε |
| | Sèe | à | làa | see-ke |
| | 1PL.INCL | 1PL.SM | say | 1PL.Q |
| g) | Wèe | à | làa | weekε |
| | Wèe | à | làa | wee-ke |
| | 2PL | 2PL.SM | say | 2PL.Q |
| h) | Woowèe | a | làa | ake |
| | Woowèe | a | làa | a-ke |
| | 3PL | 3PL.SM | say | 3PL.Q |

4.1.3.4 Quantifiers - Provide judgements for the following sentences, where X is a pronoun corresponding to the subject successfully, or X is the anaphoric (reflexive) strategy that achieves a reflexive (coconstrued) reading.

- | | | | | | | | |
|-------|------------------------------------|--------|-----------|-----------|------------------|------------------|---------------------|
| C19a) | Njeŋwè | wewe | à | m̄ | yε | zhii | nyor |
| | Woman- | QUAN | C1.3SG.SM | PST3 | see | C1a-3SG.POSS.ADJ | body |
| | Every woman saw X. | | | | | | |
| b) | Muu | wewe | à | m̄ | sù'si | nyor | |
| | Child- | QUAN | C1.3SG.SM | PST3 | wash | body | |
| | Every child washed X. | | | | | | |
| c) | Muunteŋwà' | wewe | ke | bàa | zhii | tu | |
| | Student- | QUAN | ASP.HAB | hate | C1a-3SG.POSS.ADJ | head | |
| | Every student hates X. | | | | | | |
| d) | Muu | wewe | à | m̄ | yε | nyo | a yě geŋ. |
| | child- | QUAN | C1-3SG.SM | PST3 | see | snake | PREP 3SG.POSS side. |
| | Every child saw a snake near X. | | | | | | |
| e) | Muu | wewe | à | tèlèfon | zhii | mâ | |
| | child- | QUAN | C1-3SG.SM | telephone | C1-3SG.POSS.ADJ | mother | |
| | Every child telephoned X's mother. | | | | | | |
| f) | Tar | muu | wewe | ke | gani | ye. | |
| | Father | child- | QUAN | ASP.HAB | admire | 3SG.OBJ | |
| | Every child's father admires X. | | | | | | |

Repeat, replacing the quantifier "Every N" with "No N", and if any quantified antecedents behave differently from these, please provide the same paradigm.

Comment: It does not behave differently.

4.1.3.5 Questioned antecedents - As in (C19), X is coreferent with the wh-word in all of the following (if C20e is possible in your language). If your language leaves question words in situ, translate accordingly, and if your language allows both in situ and fronted questions, then provide examples of both possibilities and judgments for each of the coreference strategies.

- C20a) A nda m̄ ye nda?
Is Q PST3 see who
Who saw X?
- b) A nda m̄ sù'si nda?
Id Q PST3 wash Q
Who washed X?
- c) A nda m̄ ye nyo àgee nda?
Is Q PST3 see snake LOC Q
Who saw a snake near X?
- d) A nda m̄ ke' ma zhi nda?
Is Q PST3 call mother 3SG.POSS Q
Who telephoned X's mother?
- e) A tar zhì nda ke gani nda?
Is father 3SG.POSS Q ASP.HAB admire Q
Whose father admires X?

4.1.3.6 Reverse binding - In the following examples, the full NP ('antecedent') appears in the lower (prototypically, object) position. Try to translate these into your language. It is expected that many sentences constructed in this section, possibly all, will be unacceptable in many languages (as *Himself saw Fred is in English). Naturally, any examples which are not ungrammatical are of particular interest.

- C21a) Rli rli m̄ ye Fred.
Rli rli m̄ ye Fred
C5-3SG.POSS.ADJ C5-eye C5-3SG.SM PST3 see Fred
X saw Fred.
- b) Rli rli m̄ ye wèr
Rli r-lir rli m̄ ye wèr
C5-3SG.POSS.ADJ C5-eye C5-3SG.SM PST3 see 1PL
X saw us. (X = us)
- c) * Rli rli m̄ ye nyo mbenjì Fred
C5-3SG.POSS.ADJ C5-eye C5-3SG.SM PST3 see snake LOC Fred
X saw a snake behind Fred.
- d) * Zhii tu zhi m̄ nèsì Fred.
Zhii tu zhi m̄ nè-si Fred.
C1a head C1a-3SG.SM PST3 impress-CAUS Fred
X impressed Fred
- e) * Bîl à m̄ làa ekù zhii cùu àmbò Fred
Bill C1-3SG.SM PST3 speak PREP C1a-3SG.POSS.ADJ mouth ADV Fred
Bill spoke to X about Fred.
- f) * Bîl à m̄ suŋ àmbò Fred
Bill C1-3SG.SM PST3 tell ADV Fred
Bill told X about Fred
- g) * Zhii tu zhi m̄ nàa Fred.
C1a head C1a-3SG.SM PST3 praise Fred
X was praised by Fred.
- h) * Yoo tu zhi m̄ kòŋ wè.
C1a.2SG.POSS.ADJ head C1a-3SG.SM PST3 like 2SG.
X is liked by you. (X = you)

If the current strategy permits a possessive position to be coreferent with its antecedent, please indicate if an anaphor or a pronoun is possible in the position of X, which should correspond to George in all of these examples.

- C22a) *E m̀ tèlèfon ma zhi Josh
 3SG. PST3 telephone mother 3SG.POSS George
 X telephoned George's mother.
- b) Ma zhi Josh à m̀ ròo à rkù'si Josh.
 Ma zhi Josh à m̀ ròo à r-kù'si Josh.
 Mother 3SG.POSS George C1-3SG.SM PST3 want INF INF-improve George
 X's mother wanted to improve George.
- c) Ma zhi Josh à m̀ fa ŋge' nè ye Josh
 Mother 3SG.POSS George C1-3SG.SM PST3 give troublePREP 3SG.OBJ George
 X's mother worried/impressed George.
- d) Merì à m̀ suŋ ma zhi Josh àmbò ye Josh.
 Mary C1-3SG.SM PST3 tell mother 3SG.POSS George ADV 3SG.OBJ George
 Mary told X's mother about George.
- e) Rliŋshima zhi Josh rli m̀ gwè mbendùu ye Josh.
 Picture mother 3SG.POSS George C5-3SG.SM PST3 fall LOC 3SG.OBJ George
 A picture of X's mother fell on George.
- f) Rliŋshi ma zhi Josh rli m̀ bòŋ ye Josh.
 Picture mother 3SG.POSS George C5-3SG.SM PST3 nice 3SG.OBJ George
 A picture of X's mother pleased George.

Comment: Note the insertion of the object pronoun in C22c-f) for the sentence to be wellformed in Limbum and when left out may form a weak sentence construction.

In some languages, it is possible to scramble the positions of argument nominals so that objects can precede subjects, or perhaps the order of arguments in the VP is less fixed. In translating these cases we want you to preserve the linear order of X before its antecedent and providing a judgment accordingly, insofar as the unmarked word order of your language allows.

Please let us know, however, if word order in your language is fluid enough to scramble arguments in such a way that the linear order between X and its antecedent could change (e.g., in English, this would be a form of topicalization, such as John, his mother loves, which English informants do not always agree about). This we will not explore directly in this questionnaire, but we want to know in case we choose to do follow up research on this phenomenon.

In Limbum, the relativiser is vital for topicalisation e.g.

Jôn ce zhii ma ke kòŋ
 John REL C1.3SG.POSS.ADJ mother ASP.HAB love
 John, his mother loves

4.1.4 Some matters of interpretation

4.1.4.1 Distribution, reflexivity and reciprocity - Select and translate a simple example illustrating the using a clausemate coreference strategy successfully, such as (C23).

- C23) Byeŋge a ke jà' se mò ba mò'
 Byeŋge a ke jà' - se mò ba mò'
 Women 3PL.SM ASP.HAB help-PLU.RECIP one CONJ one.
 The women help X.

Which of the following meanings can this example have? Say which it can have and which it can't have. We will say that if the form in place of X permits at least (C24a) or (C24f) as a reading, then the form in question permits a reciprocal interpretation.

- C24a) Njeŋwè wewε ke jà bbyeŋgwe wewε le zhii tu
 Njeŋwè wewε ke jà bb-yeŋgwe wewε le zhii tu
 Woman 3PL ASP.HAB help C2-women 3PL keep C1a-3SG.POSS.ADJ head
 Each woman helps all (or almost all) of the women, excluding herself.
- b) Njeŋwè wewε ke jà bbyeŋgwe wewε nè zhii tuŋwè
 Njeŋwè wewε ke jà bb-yeŋgwe wewε nè zhii tu-ŋwè
 Woman 3PL ASP.HAB help C2-women 3PL PREP C1a-3SG.POSS.ADJ head-INCL
 Each woman helps all of the women, including herself.
- c) Njeŋwè wewε ke kù jà bbyeŋge mo'.

Njeŋwè wewε ke kù jà bb-yeŋge mo'.
 Woman 3PL ASP.HAB least help C2-women other
 Each woman helps at least some of the other women.

d) Njeŋwè wewε ke jà zhii tu
 Woman 3PL ASP.HAB help C1a-3SG.POSS.ADJ head
 Each woman helps herself.

e) Byeŋge bii a ke jà' bbyeŋge mo' àbii.
 B-yeŋge bii a ke jà' bb-yeŋge mo' à-bii.
 C2- women together as a group 3PL.SM ASP.HAB help C2-women other PREP-together as a group
 The women together as a group help the women together as a group.

f) Njeŋwè wewε ke jà mò' efa njeŋwè lε zhii tu, te
 Njeŋwè wewε ke jà mò' efa njeŋwè lε zhii tu, te
 Woman 3PL ASP.HAB help one PREP womankeep C1a-3SG.POSS.ADJ head, such that
 bbyeŋge anà wewε a bo jà'ni mò' ba mò'.
 bb-yeŋge anà wewε a bo jà'-ni mò' ba mò'.
 C2-women ANA.DET 3PL 3PL.SM MOD help-DU one CONJ one

Comment: Each woman helps one of the women other than herself, such that all of the women are helped by one of the others.

Only (C24f) permits reciprocal reading. (C24f) allows a prepositional-phrase anaphoric reading and the rest make use of the body part 'head'

Translate each of the following examples, which are compatible with collective action, and state their possible interpretations as above.

C25a) Byeŋge a ìn jà'ni
 Bb-yeŋge a ìn jà'-ni
 C2-women 3PL.SM PST3 help-DU.RECIP
 The women praised X.

Comment: Collective action here reveals division into two camps thus makes use of the dual reciprocal.

b) Bbyeŋge a be tomi wap btu
 Bb-yeŋge a be tomi wap btu
 C2-women 3PL.SM FUT1 support C2-3PL.POSS.ADJ C2-heads
 The women will support X.

c) Bbyeŋge a ìn lør map mlèŋshi
 Bb-yeŋge a ìn lør map m-lèŋshi
 C2-Women 3PL.SM PST3 take photo C6-3PL.POSS.ADJ C6-photos
 The women photographed X.

d) Bbyeŋge a ìn fyèni wap btu
 Bb-yeŋge a ìn fyèni wap b-tu
 C2-Women 3PL.SM PST3 betray C2-3PL.POSS.ADJ C2-heads
 The women betrayed X.

Comment: Collective action excludes "one CONJ one" strategy and the possessive/body parts are used thus permitting only reflexives.

In light of these observations, which of the local coreference strategies in your language permit only reciprocal readings, which ones permit only reflexive readings, and which ones permit both?

If this strategy can have both reflexive and reciprocal readings, can you think of some predicates in which it is ambiguous? For example, in German, Die Kinderen wassen sich can mean either "the children are washing themselves" or "the children are washing each other."

Comment: In Limbum, reflexives strictly take possessives/ body parts and reciprocals take "one CONJ one" strategy or the reciprocal suffixes of -ni and -se.

4.1.4.2 Reciprocal readings - Complete this section only if your strategy allows a reciprocal reading (i.e., permits a reading like those in (C24a) or (C24f). If the strategy is ambiguous, make sure to use verbs that allow the reciprocal interpretation.

a) Which of the following verbs can the strategy be applied to?

C26) "meet", "see", "fight", "speak", "hit"
 Reciprocal -te, reciprocal -ni, reciprocal one CONJ one, zero option reciprocal, reciprocal -ni

b) Does the strategy allow the constructions where X is understood to be a reciprocal which has a plural antecedent consisting of John and Bill (i.e., it would be understood as "John and Bill saw each other"). Are both "see" and "meet" possible in (C27), or is only one sort of verb acceptable?

C27a) Jôn à ìn tarte a Bîl
 Jôn à ìn tar-te a Bîl

John C1-SG.SM PST meet-RECIP CONJ Bill
 John met X with Bill (Meaning: "John and Bill met each other.")
 b) Jôn à m̄ yɛni a Bîl
 Jôn à m̄ yɛ-ni a Bîl
 John C1-SG.SM PST see-DU-RECIP CONJ Bill
 John saw X with Bill (Meaning: "John and Bill saw each other.")

Comment: This strategy is the same but they take different morphemes.

c) Is there any difference in the range of interpretations permitted for (C28a) as opposed to (C28b), or any difference in reciprocal strategies that support these interpretations? If so, tell us what you think the problem is and provide pairs like these for subsequent tests in this section (and let us know if male/female gender pairings introduce any complications).

C28a) Jôn a Merì a nàa mò' ba mò'.
 John CONJ Mary 3PL.SM praise one CONJ one
 John and Mary praised X.
 b) Bbyeŋge a nàa mò' ba mò'.
 C2-Women 3PL.SM praise one CONJ one
 The women praised X.

Comment: The verb praise prefers the 'one CONJ one' reciprocal strategy. Addition of the –ni suffix is permitted but when the verb meaning changes.

d) Can the strategy express reciprocity between a subject and an indirect object?

C29a) Jôn a Merì a de' e
 John CONJ Mary 3PL.SM speak vowel echo
 John and Mary spoke to X.

Zero option

b) Jôn a Merì a tarte e
 Jôn a Merì a tar-te e
 John CONJ Mary 3PL.SM meet vowel echo
 John and Mary met with X.
 c) Jôn a Merì a m̄ fa ŋwà' ca nè Pôl
 John CONJ Mary 3PL.SM PST3 give book DEM.PROX PREP Paul
 John and Mary gave this book to X.

Comment: Reciprocity is not possible between multiple subjects and indirect object.

e) Long-distance reciprocal readings - For any of the strategies that permit a reciprocal reading, can the following sentence be translated to mean "Bill thinks he likes Mary, and Mary thinks she likes Bill"?

C30) Bîl a Merì a kwà'shi anɛ a kòŋni i.
 Bîl a Merì a kwà'-shi a-nɛ a kòŋ-ni i.
 Bill CONJ Mary 3PL.SM think-PLU 3PL.COMP 3PL.SM like-DU-RECIP vowel echo
 Bill and Mary think that they like X.

4.1.4.3 Sociative readings

Please translate these sentences, more than one way, if possible. Please be sure to let us know if any of the reciprocal or reflexive strategies can be used to achieve these readings.

C31ai) Mbù zhi m̄ da'se e.
 C7-baboons C7-3PL.SM PST3 left-RECIP vowel echo.
 The baboons left together.
 aii) Mbù zhi m̄ dùse jɛɛjɛjɛ
 C7-baboons C7-3PL.SM PST3 go-RECIP differently
 The baboons left together.
 bi) Mbù zhi m̄ zhe nca àbee
 Mbù zhi m̄ zhe nca à-bee
 C7-baboons C7-3PL.SM PST3 eat fish PREP-together
 The baboons ate fish together.
 bii) Mbù zhi m̄ zhenger àbee
 Mbù zhi m̄ zhe-ŋger a-bee

C7-baboons C7-3PL.SM PST3 eat-ITER PREP-together

The baboons ate together.

Comment: The same reciprocal meaning is achieved but the strategy changes with the citing of the direct object as in (C31bi).

4.1.4.4 Antipassive readings

C32ai) Mbaanjii cà ke luushi bèo.
 Mbaanjii cà ke luu-shi bèo.
 Panther DEM.DIS ASP.HAB bite-PLU people
 That panther bites people.

aii) Mbaanjii cà ke luuni.
 Mbaanjii cà ke luu-ni
 Panther DEM.DIS ASP.HAB bite-PLU
 That panther bites.

b) Gomen ke koo-shi bèo
 Gomen ke koo-shi bèo
 Government ASP.HAB arrest-PLU people
 The government arrests people.

bii) Gomen ke koo-shi
 Gomen ke koo-shi
 Government ASP.HAB arrest-PLU
 The government arrests

c) Bìl ke nàa bèo
 Bìl ASP.HAB praise people
 Bill praises people

4.2 Cross-clausal binding

4.2.1 Coreference relations across typical tensed clausal complement

4.2.1.1 Tensed complement, long distance relations, anaphor in situ - Please provide translations for all of these sentences where X is Jack.

D1a) Jak à làa ene e tərɓfee
 Jak à làa e-ne e tərɓfee
 Jack C1-3SG.SM say 3SG-SP.INTRO 3SG smart
 Jack said that X is smart.

b) Jak rɪŋ ene Josh kòŋ ye
 Jak rɪŋ e-ne Josh kòŋ ye
 Jack know 3SG-COMP George like 3SG.OBJ
 Jack knows that George likes X.

c) Jak rɪŋ ene Bìl à làa ene e tərɓfee
 Jak rɪŋ e-ne Bìl à làa e-ne e tərɓfee
 Jack knows 3SG-COMP Bill C1.3SG.SM say 3SG-SP.INTRO 3SG smart
 Jack knows that Bill said that X is smart.

d) Jak ce kwà' ene Lisà rɪŋ ene wendì kòŋ ye
 Jak ce kwà' e-ne Lisà rɪŋ e-ne wendì kòŋ ye
 Jack ASP.CONT think 3SG-COMP Lisà know 3SG-COMP Wendy like 3SG.OBJ
 Jack thinks that Lisa knows that Wendy likes X.

e) Jak ce kwà' ene Lisà rɪŋ ene e kòŋ Àlir
 Jak ce kwà' e-ne Lisà rɪŋ e-ne e kòŋ Àlir
 Jack ASP.CONT think 3SG-COMP Lisà know 3SG-COMP 3SG like Alice
 Jack thinks that Lisa knows that X likes Alice.

f) Sera à m̄ suŋ Jak ene Lisà kòŋ ye
 Sera à m̄ suŋ Jak e-ne Lisà kòŋ ye
 Sarah C1-3SG.SM PST3 tell Jact 3SG-SP.INTRO Lisa love 3SG.OBJ
 Sarah told Jack that Lisa loves X.

g) Sera à m̄ suŋ Jak ene e kòŋ Wendì
 Sera à m̄ suŋ Jak e-ne e kòŋ Wendì
 Sarah C1-3SG.SM PST3 tell Jact 3SG-SP.INTRO 3SG love Wendy
 Sarah told Jack that X loves Wendy.

- D2a) ak à m̀ byemi ene Meri kòṅ ye
 Jak à m̀ byemi e-ne Meri kòṅ ye
 Jack C1-1SG.SM PST3 admit 3SG.COMP Mary love 3SG.OBJ
 Jack admitted that Mary loved X.
- b) Jak à m̀ ghàase ene Meri kòṅ ye
 Jak à m̀ ghàa-se e-ne Meri kòṅ ye
 Jack C1-SG.SM PST3 suspect-PLU 3SG.COMP Mary love 3SG.OBJ
 Jack suspected that Mary loved X.
- c) Jak à m̀ ce kwàshi ene Meri kòṅ ye
 Jak à m̀ ce kwa-shi e-ne Meri kòṅ ye
 Jack C1-SG.SM PST3 ASP.CONT thinking-PLU 3SG.COMP Mary love 3SG.OBJ
 Jack was thinking that Mary loves X
- d) Jak à m̀ ce tarni ene Meri kòṅ ye
 Jak à m̀ ce tar-ni e-ne Meri kòṅ ye
 Jack C1-SG.SM PST3 ASP.CONT doubting-PLU 3SG.COMP Mary love 3SG.OBJ
 Jack was doubting whether Mary loves X

Please also test adjuncts, such as those in (D3), where X = Jeff.

- D3a) Jef à m̀ war dukuu Meri ànfè' Èlà à tàa ye
 Jeff C1-SG.SM PST3 complain concern Mary TEMP Ella C1-SG.SM blame 3SG.OBJ
 Jeff complained about Mary when Ella blamed X
- bi) Jef à k̀ti à là' ànfè' ce e sè
 Jeff C1-SG.SM PST3 PREP home TEMP REL 3SG tire
 Jeff returned home when/after X became tired.
- bii) Jef à k̀ti à là' a ka' sè
 Jeff C1-SG.SM PST3 PREP home CONJ then tire
 Jeff returned home before X became tired.
- ci) Tε Meri ka' saṅ ye, Jef à m̀ k̀ti à là'
 TEMP Mary CONJ write 3SGOBJ Jeff C1.3SG.SM PST3 return PREP home
 When/before Mary wrote to X, Jeff returned home.
- cii) Meri à m̀ saṅ ye Jef te e ka' k̀ti à là'
 Mary CONJ PST3 write 3SGOBJ Jeff CONJ 3SG CONJ return PREP home
 After Mary wrote to X, Jeff returned home.
- d) Jef à m̀ lò Meri à ce ye ye ka'
 Jeff C1-3SG.SM PST leave Mary C1-3SG.SM ASP.CONT see 3SG.OBJ NEG
 Jeff left without Mary seeing X.
- e) Meri à m̀ jàasi Jef a ce ye ye ka'
 Mary C1-3SG.SM PST3 condemned Jeff CONJ ASP.CONT see 3SG.OBJ NEG.
 Mary condemned Jeff without meeting X.

Comment: Note the fact that the temporal differences between before and after allow long distance anaphora only with before and when as can be seen through (D3bi - D3cii)

We are naturally interested if there is any difference in the way that complements and adjuncts behave.

Please do not forget to test reciprocal strategies in these long distance contexts (adjusting for plural antecedents), but if none of them work, it is not necessary to provide examples for all of them. Just let us know. However, if any of the distinctions above reveal contrasts such that some permit reciprocals and others don't please let us know and we will probably be interested in some follow-up questions.

4.2.1.2 Climbing from tensed complements - This test applies particularly to reflexives in close association with a verb, either as affixes or clitic pronouns, but there are some languages where a form of focus movement can move an argument-marked anaphor into a higher clause.

4.2.2 Long distance relations and the variety of clausal embedding types

Consider what a list of major clause embedding types in your language would include. In English, it would include, besides tensed complements like those in the last subsection, infinitives, bare infinitives, gerunds, subjunctives (a lexically restricted class) and small clauses, each of which are illustrated in brackets in (X12).

- X12ai) Mě kwàshi à rdù
 Mě kwàshi à r-dù
 1SG hope INF INF-go
 I hope [to leave]

- aii) Mě kwàshi à rdù yaayu
Mě kwàshi à r-dù yaa-yu
1SG hope INF INF-go 1SG.FOC.PRO
I hope [to leave] (disappointed)
- aiii) Mě kwà' mene Bìl à ba dù
Mě kwà' me-ne Bìl à ba dù
1SG hope 1SG.COMP Bill C1.SG.SM MOD go
I hope [for Bill to leave]
- aiv) Mě kè' mene Bìl be yu rbòŋ ka'
Mě kè' me-ne Bìl be yu rbòŋ ka'
1SG expect 1SG.COMP Bill FUT1 feel nice NEG
I expect [Bill to be unpleasant]
- av) Mè bu'mmbo nè Bìl mene e dù.
Mè bu'mmbo nè Bìl mene e dù.
1SG Persuade PREP Bill mene e dù
I persuaded Bill [to leave]
- bi) Mè gèe Bìl à dù
1SG make Bill C1-3SG.SM go
I made [Bill leave]
- bii) Mè gèe yaayu Bìl à dù
1SG make 1SG-FOC.PRO Bill C1-3SG.SM go
I made [Bill leave] (impatient with him)
- c) Mè m̄ ye ŋwèmò à ce lò
1SG PST3 see someone C1-3SG.SM ASP.HAB leave
I saw [someone leaving]
- d) Mè tà' mene e de' m̄f̄e
Mè tà' me-ne e de' m̄f̄e
1SG require 1SG.COMP 3SG speak softly
I require [that he speak softly]
- e) Mè ye mene Bìl yu mbòŋmboŋ ka'
Mè ye me-ne Bìl yu mbòŋmboŋ ka'
1SG see 1SG.COMP Bill be pleasant NEG
I consider [Bill unpleasant]

In this subsection, we want you to construct sentences along the lines of those presented for tensed clauses above adjusting for the different complement clause types allowed in your language (which may be radically fewer than those in English, or may involve types of complementation not found in English). Then test each clausal type for the success or failure of each coreference strategy.

- D4ai) Edgà à làa nè Bìl ene e t̄arntee njep ye
Edgà à làa nè Bìl e-ne e t̄arntee njep ye
Edgar C1-3SG.SM ask PREP Bill 3SG.SP.INTRO 3SG trust PREP 3SG.OBJ
Edgar asked Bill to trust X.
- aii) Edgà à làa nè Bìl ene e bâ t̄arntee nje yě nyor
Edgà à làa nè Bìl e-ne e bâ t̄arntee nje yě nyor
Edgar C1-3SG.SM ask PREP Bill 3SG.SP.INTRO 3SG MOD trust PREP 3SG.POSS body
Edgar asked Bill to trust X. (X = Bill)
- bi) Edgà à làa nè Bìl ene e fa ŋwà' nè ye
Edgà à làa nè Bìl e-ne e fa ŋwà' nè ye
Edgar C1-3SG.SM ask PREP Bill 3SG.SP.INTRO 3SG give book PREP 3SG.OBJ
Edgar asked Bill to give a book to X.
- bii) Edgà à làa nè Bìl ene e fa ŋwà' nè zhii tu
Edgà à làa nè Bìl e-ne e fa ŋwà' nè zhii tu
Edgar C1-3SG.SM ask PREP Bill 3SG.SP.INTRO 3SG give book PREP C1a.3SG.POSS.ADJ head
Edgar asked Bill to give a book to X. (X = Bill)
- ci) Edgà à làa nè Bìl ene e de' a ye
Edgà à làa nè Bìl e-ne e de' a ye
Edgar C1-3SG.SM ask PREP Bill 3SG.SP.INTRO 3SG talk PREP 3SG.OBJ
Edgar asked Bill to talk to X.

- cii) Edgà à làa nè Bîl ene e de'
 Edgà à làa nè Bîl e-ne e de'
 Edgar C1-3SG.SM ask PREP Bill 3SG.SP.INTRO 3SG talk
 Edgar asked Bill to talk to X. (X=Bill)
- d) Edgà à làa nè Bîl ene e suŋ àmbò ye
 Edgà à làa nè Bîl e-ne e suŋ àmbò ye
 Edgar C1-3SG.SM ask PREP Bill 3SG.SP.INTRO 3SG talk ADV 3SG.OBJ
 Edgar asked Bill to talk about X.
- e) Edgà à m̄ kwà' ene Bîl à ba t̄arntee njep ye
 Edgà à m̄ kwà' e-ne Bîl à ba t̄arntee njep ye
 Edgar C1-3SG.SM PST3 expect 3SG.COMP Bill C1.3SG.SM MOD trust PREP 3SG.OBJ
 Edgar expected Bill to trust X.
- f) Edgà à m̄ làa ene Bîl la' ye
 Edgà à m̄ làa e-ne Bîl la' ye
 Edgar C1-3SG.SM PST3 3SG.SP.INTRO Bill pay 3SG.OBJ
 Edgar ordered Bill to pay X.
- g) Edgà à m̄ làa ene Bîl laa ene e m̄ t̄arbf̄ee
 Edgà à m̄ làa e-ne Bîl laa e-ne e m̄ t̄arbf̄ee
 Edgar C1-3SG.SM PST3 order 3SG.SP.INTRO Bill say 3SG.SP.INTRO 3SG PST3 smart
 Edgar ordered Bill to say that X was smart.
- h) Edgà à m̄ làa ene Bîl laa ene Meri m̄ kòŋ ye
 Edgà à m̄ làa e-ne Bîl laa e-ne Meri m̄ kòŋ ye
 Edgar C1-3SG.SM PST3 order 3SG.SP.INTRO Bill say 3SG.SP.INTRO Meri PST3 love 3SG.OBJ
 Edgar ordered Bill to say that Mary loved X.

If infinitives in your language permit lexical subjects, either by exceptional Casemarking, as in (D5), or by a more general strategy (in English tied to the complementizer for) as in (D6), please also provide examples of this type.

- D5a) Edgà ce kè' à rsô
 Edgà ce kè' à r-sô
 Edgar ASP.CONT expect INF INF-win
 Edgar expects X to win.
- b) Edgà ce kè' ene Bîl so ye
 Edgà ce kè' e-ne Bîl so ye
 Edgar ASP.CONT expect 3SG.COMP Bill win 3SG.OBJ
 Edgar expects Bill to defeat X.
- D6ai) Edgà ce kwàshi à rsô
 Edgà ce kè' à r-sô
 Edgar ASP.CONT hope INF INF-win
- D6aii) Edgà ce kwàshi ene e be so
 Edgà ce kwà-shi e-ne e be so
 Edgar ASP.CONT hope-PLU 3SG.COMP 3SG FUT1 win
 Edgar hopes for X to win.
- b) Edgà ce kwàshi ene Bîl be so ye
 Edgà ce kwà-shi e-ne Bîl be so ye
 Edgar ASP.CONT hope-PLU 3SG.COMP Bill FUT1 win 3SG.OBJ
 Edgar hopes for Bill to defeat X.

If the coreferent nominal can be a possessive, provide also examples like the following:

- D7a) Edgà ce kè' ene Bîl so nf̄ar zhii
 Edgà ce kè' e-ne Bîl so nf̄ar zhii
 Edgar ASP.CONT expect 3SG.COMP Bill win brother C1-3SG.POSS.FOC.ADJ
 Edgar expects Bill to defeat X's brother.
- b) Edgà ce kwà'shi ene Bîl be so nf̄ar zhii
 Edgà ce kwà'-shi e-ne Bîl be so nf̄ar zhii
 Edgar ASP.CONT hope-PLU 3SG.COMP Bill FUT1 win brotherC1-3SG.POSS.FOC.ADJ
 Edgar hopes for Bill to defeat X's brother.

- c) Edgà ce kè' ene nfar zhii so ye
 Edgà ce kè' e-ne nfar zhii so ye
 Edgar ASP.CONT expect 3SG.COMP brotherC1-3SG.POSS.FOC.ADJ win 3SG.OBJ
 Edgar expects X's brother to defeat him.
- d) Edgar hopes for Bill to defeat X's brother. Same as D7b) above.

Now try all of these "Edgar" sentences with climbing, such that the X argument is raised into the matrix clause. If this is not possible at all, just say so and set the issue aside, but if it is possible for some sentence types and not others, please provide examples for each Edgar sentence. Such sentences might look something like (D5c,d) and (D6c,d), if they are possible at all (and abstracting away from VO/OV word order, etc.)

- D5c) Edgà yeye ce kè' à rsô.
 Edgà ye-ye ce kè' à r-sô.
 Edgar 3SG.REDU ASP.CONT expect INF INF-win
 Edgar X-expects to win.
- d) Edgà yeye ce kè' ene Bîl so
 Edgà ye-ye ce kè' e-ne Bîl so
 Edgar 3SG.REDU ASP.CONT expect 3SG.COMP Bill win
 Edgar X-expects Bill to defeat.
- D6c) Edgà yeye ce kwà'shi à rsô.
 Edgà ye-ye ce kwà'shi à r-sô.
 Edgar 3SG.REDU ASP.CONT hope-PLU INF INF-win
 Edgar X-hopes for to win.
- d) Edgà yeye ce kwà'shi ene Bîl so
 Edgà ye-ye ce kwà'shi e-ne Bîl so
 Edgar 3SG.REDU ASP.CONT hope-PLU 3SG.COMP Bill win
 Edgar X-hopes for Bill to defeat.

If your language permits small clauses, such as English John considers Mary intelligent, where intelligent is thus predicated of Mary, then try the following tests, where X = Tom.

- D8a) Tôm ke lôr zhii tu ene e tãrbfee
 Tôm ke lôr zhii tu e-ne e tãrbfee
 Tom ASP.HAB consider C1a-3SG.POSS.ADJ head 3SG.COMP 3SG intelligent
 Tom considers X intelligent.
- b) Tôm ke lôr ene Meri gwee ye
 Tôm ke lôr e-ne Meri gwee ye
 Tom ASP.HAB consider 3SG.COMP Mary fond 3SG.OBJ
 Tom considers Mary fond of X.
- c) Tôm ce lôr ene ntee zhi ce yaŋ Meri nè ye
 Tôm ce lôr e-ne ntee zhi ce yaŋ Meri nè ye
 Tom ASP.CONT consider 3SG.COMP heart C1a-3SG.SM ASP.CONT worry Mary PREP 3SG.OBJ
 Tom considers Mary angry at X.

Remember to test all strategies, reciprocal and reflexive, for all of the clause types you provide evidence for. Be alert to differences in the person of the antecedent, but save your evidence about such cases for section 4.4. Finally, provide paradigms like the Jack, Edgar or Jeff paradigms for any form of embedding that we have not discussed up to now.

- a) Jak à m byemi zhiiyu ene Meri kòŋ ye
 Jak à m byemi zhii-yu e-ne Meri kòŋ ye
 Jack C1-1SG.SM PST3 admit 3SG.FOC.PRO 3SG.COMP Mary love 3SG.OBJ
 Jack admitted X that Mary loved X.
- b) Jef à kãti zhii à là' ànfè' ce e sè
 Jeff C1-SG.SM PST3 3SG.POSS.FOC PREP home TEMP REL 3SG tire
 Jeff returned X home when/after X became tired.
- c) Edgà zhii à suŋ ba àmbò Bîl
 Edgar 3SG.POSS.FOC C1-3SG.SM talk FOC ADV Bill

Edgar X talk instead about Bill.

Comment: Find here the use of focal pronouns and possessives to mark focus.

Note: If your language permits verb serialization, special issues may arise for some of the questions we have been raising. If this is the case, please let us know that verb serialization is possible in your language and alert us to any sorts of patterns that you think we might be interested in. We will address these issues in follow up research.

Comment: Besides serial actions expressed by the use of some verb suffixes, verb serialization is possible in Limbum. The pattern that can be of interest is when independent pronouns function as possessives whereas they do not have any tonal or stress differences. This takes place when the independent pronoun follows the serial verb.

4.2.3 Backwards anaphora

If your language permits sentential subjects like those in D9, please indicate if coreference succeeds where X is a pronoun or anaphor construed with Oliver.

- D9a) Àmbò ye nè zhii tu à m vè ler, zhi bep Olivà
 ADV 3SG.OBJ PREP C1a-3SG.POSS.ADJ head C1.3SG.SM PST3 come late, 3SG.SM upset Oliver
 As X was late upset Oliver.
- b) Àmbò ye nè zhii tu à m vè ler, zhi dùṅshi
 Àmbò ye nè zhii tu à m vè ler, zhi dùṅshi
 ADV 3SG.OBJ PREP C1a-3SG.POSS.ADJ head C1.3SG.SM PST3 come late, 3SG.SM suggest
 zhine Olivà à jàṅtee e
 zhi-ne Oliver à jàṅtee e
 3SG.COMP Oliver C1-3SG.SM guilty vowel echo
 That X was late suggested that Oliver was guilty.
- c) Àmbò ye nè zhii tu à m vè ler, zhi gèe Olivà
 ADV 3SG.OBJ PREP C1a-3SG.POSS.ADJ head C1.3SG.SM PST3 come late, 3SG.SM make Oliver
 à ke' jèṅtee
 C1-3SG.SM look guilty
 That X was late made Oliver look guilty.
- d) Àmbò ye nè zhii tu à m vè ler, zhi niṅsi Olivà
 ADV 3SG.OBJ PREP C1a-3SG.POSS.ADJ head C1.3SG.SM PST3 come late, 3SG.SM enter Oliver
 à yuu
 PREP thing.
 That X was late implicated Oliver.

Section 4.3 Principle C-type effects

In English it is not possible to interpret he = Malik or he = the boy in (E1), except in some exceptional discourse circumstances such as extra stress and/or focus (and then not for everybody). For all of these examples, give judgments that indicate whether or not it is possible in normal discourse circumstances for the pronoun to be either Malik or the boy.

- E1a) E m jàasi Màlik
 1SG PST3 criticize Malik
 He criticized Malik.
- b) E làa ene Meriàm à jàasi ye Màlik
 E làa e-ne Meriàm à jàasi ye Màlik
 3SG say 3SG.SP.INTRO Mariam C1-3SG.SM criticize 3SG.OBJ Malik
 He said Mariam criticized Malik.
- c) E m jàasi muumbaṅrù anà
 3SG PST3 criticize boy ANA.DET
 He criticized the boy.
- d) E làa ene Meriàm à jàasi ye muumbaṅrù
 E làa e-ne Meriàm à jàasi ye muumbaṅrù
 3SG say 3SG.SP.INTRO Mariam C1-3SG.SM criticize 3SG.OBJ boy
 He said Mariam criticized the boy.
- E2a) Zhii ma à jàasi ye Màlik

- C1a-3SG.POSS.FOC.ADJ mother C1-3SG.SM criticize ye Malik
His mother criticized Malik.
- b) Zhì ma à m lãa ene Mariàm à
Zhì ma à m lãa e-ne Mariàm à
C1a-3SG.POSS.FOC.ADJ mother C1-3SG.SM PST3 say 3SG.COMP Mariam C1.3SG.SM
jàasi Màlik
jàasi Màlik
criticize Malik
His mother said Mariam criticized Malik.
- c) Zhì ma à m jãasi ye muumbaṅrù
C1a-3SG.POSS.FOC.ADJ mother C1-3SG.SM PST3 criticize 3SG.OBJ boy
His mother criticized the boy.
- d) Zhì ma à m lãa ene Meriàm à
Zhì ma à m lãa ene Meriàm à
C1a-3SG.POSS.FOC.ADJ mother C1-3SG.SM PST3 say 3SG.COMP Mariam C1-3SG.SM
jàasi ye muumbaṅrù
jàasi ye muumbaṅrù
criticize 3SG.OBJ boy
His mother said Mariam criticized the boy.
- E3a) ŋwè ce e m kòŋ à jãasi ye Màlik
Man REL 3SG PST3 like C1-3SG.SM criticize 3SG.OBJ Malik
The man who he liked criticized Malik
- b) ŋwè ce e m kòŋ à jãasi ye muumbaṅrù
Man REL 3SG PST3 like C1-3SG.SM criticize 3SG.OBJ muumbaṅrù
The man who he liked criticized the boy.
- c) ŋwè ce m kòŋ ye à jãasi ye muumbaṅrù
Man REL PST3 like 3SG.SM C1-3SG.SM criticize 3SG.OBJ muumbaṅrù
The man who liked him criticized the boy.
- d) ŋwè ce m kòŋ ye à jãasi ye Màlik
Man REL PST3 like 3SG.OBJ C1-3SG.SM criticize 3SG.OBJ Malik
The man who liked him criticized Malik

Comment: It is not possible to interpret he/his in E1a and c) as Malik or the boy in Limbum.

Now consider whether or not, in place of the pronoun, the name Malik could work as the antecedent for either Malik or the boy could work as the antecedent for the boy in the following sentences, again, paying attention to whether special discourse circumstances must be appealed to make the sentence sound natural (e.g., in English, (E4a) would sound natural if preceded by “Everyone criticized Malik. Bill criticized Malik, Mary did, and even Malik criticized Malik”, but this is one example of what I mean by a special discourse circumstance).

- E4a) * Màlik à m jãasi Màlik
Malik C1-3SG.SM PST3 criticize Malik
Malik criticized Malik.
- b) Màlik à lãa ene Meriàm à m jãasi ye Màlik
Màlik à lãa e-ne Meriàm à m jãasi ye Màlik
Malik C1-3SG.SM say 3SG.SP.INTRO Mariam C1-3SG.SM PST3 criticize 3SG.OBJ Malik
Malik said Mariam criticized Malik.
- c) * Muumbaṅrù à m jãasi muumbaṅrù
Boy C1-3SG.SM PST3 criticize boy
The boy criticized the boy.
- d) Muumbaṅrù à lãa ene Meriàm à jãasi ye
Muumbaṅrù à lãa e-ne Meriàm à jãasi ye
Boy C1-3SG.SM say 3SG.SP.INTRO Mariam C1-3SG.SM criticize 3SG.OBJ
Muumbaṅrù
Muumbaṅrù
boy
The boy said Mariam criticized the boy.
- E5a) Ma zhì Màlik à jãasi Màlik

- Mother C1a-3SG.POSS.FOC.ADJ Malik C1-3SG.SM criticize Malik
Malik's mother criticized Malik.
- b) Ma zhì M̀alik à làa ene Meriàm à
Ma zhì M̀alik à làa e-ne Meriàm à
Mother C1a-3SG.POSS.FOC.ADJ Malik C1-3SG.SM say 3SG.SP.INTRO Marriam C1-3SG.SM
m̀ jàasi M̀alik
m̀ jàasi Malik
PST3 criticize Malik
Malik's mother said Mariam criticized Malik.
- c) Ma zhì boombaṅr̀u à m̀ jàasi woowèe boombaṅr̀u
Ma zhì boo-mbaṅr̀u à m̀ jàasi woowèe boo-mbaṅr̀u
Mother C1a-3SG.POSS.FOC.ADJ C2-boys C1.3SG.SM PST3 criticize 3PL C2-boys
The boy's mother criticized the boy.
- d) Ma zhì boombaṅr̀u à m̀ làa ene Meriàm à
Ma zhì boo-mbaṅr̀u à m̀ làa e-ne Meriàm à
Mother C1a-3SG.POSS.FOC.ADJ C2-boys C1.3SG.SM PST3 say 3SG.COMP Mariam C1-3SG.SM
m̀ jàasi boombaṅr̀u
m̀ jàasi boo-mbaṅr̀u
PST3 criticize C2-boys
The boy's mother said Mariam criticized the boy.
- E6a) Ɔwè ce M̀alik à m̀ kòṅ à jàasi ye M̀alik
Man REL Malik C1-3SG.SM PST3 like C1-3SG.SM criticize 3SG.OBJ Malik
The man who Malik liked criticized Malik
- b) Ɔwè ce muumbaṅr̀u à m̀ kòṅ à jàasi ye muumbaṅr̀u
Man REL muumbaṅr̀u C1-3SG.SM PST3 like C1-3SG.SM criticize 3SG.OBJ muumbaṅr̀u
The man who the boy liked criticized the boy.
- c) Ɔwè ce m̀ kòṅ muumbaṅr̀u à jàasi ye muumbaṅr̀u
Man REL PST3 like muumbaṅr̀u C1-3SG.SM criticize 3SG.OBJ muumbaṅru
The man who liked the boy criticized the boy.
- d) Ɔwè ce e m̀ kòṅ M̀alik à jàasi M̀alik
Man REL 3SG PST3 like Malik C1-3SG.SM criticize Malik
The man who liked Malik criticized Malik

Comment: Not possible to find anaphoric effects in E4a and c) with Malik/the boy.

Now consider whether the boy = Malik for the following examples

- E7a) Muumbaṅr̀u à m̀ jàasi M̀alik
Boy C1-3SG.SM PST3 criticize Malik
The boy criticized Malik.
- b) Muumbaṅr̀u à m̀ làa ene Meriàm à jàasi ye M̀alik
Boy à m̀ làa e-ne Meriàm à jàasi ye M̀alik
Boy C1-3SG.SM PST3 say 3SG.SP.INTRO Mariam C1-3SG.SM criticize 3SG.OBJ Malik
The boy said Mariam criticized Malik.
- c) M̀alik à m̀ jàasi muumbaṅr̀u anà
Malik C1-3SG.SM PST3 criticize boy ANA.DET
Malik criticized the boy.
- d) M̀alik à m̀ làa ene Meriàm à m̀ jàasi
M̀alik à m̀ làa e-ne Meriàm à m̀ jàasi
Malik C1-3SG.SM PST3 say 3SG.SP.INTRO Mariam C1-3SG.SM PST3 criticize
muumbaṅr̀u anà
muumbaṅr̀u anà
boy ANA.DET
Malik said Mariam criticized the boy.
- E8a) Ma zhì muumbaṅr̀u à m̀ jàasi M̀alik
mother C1a-3SG.POSS.ADJ boy C1-3SG.SM PST3 criticize Malik
His mother criticized Malik.
- b) Ma zhì muumbaṅr̀u à m̀ làa ene Meriàm

	Ma	zhì	muumbaṅrù	à	ṁ	làa	e-ne	Meriàm	
	Mother	3SG.POSS.ADJ	boy	C1-3SG.SM	PST3	say	3SG.SP.INTRO	Mariam	
	à	ṁ	jàasi	Malik					
	à	ṁ	jàasi	Malik					
	C1-3SG.SM	PST3	criticize	Malik					
	Malik's mother said Mariam criticized the boy								
c)	Ma	zhì	Malik	à	ṁ	jàasi	muumbaṅrù	anà	
	Ma	zhì	Malik	à	ṁ	jàasi	muumbaṅrù	anà	
	Mother	3SG.POSS.ADJ	Malik	C1.3SG.SM	PST3	criticize	boy	ANA.DET	
	Malik's mother criticized the boy.								
d)	Ma	zhì	Malik	à	ṁ	làa	ene	Mariàm	à
	Ma	zhì	Malik	à	ṁ	làa	e-ne	Mariàm	à
	Mother	3SG.POSS.ADJ	Malik	C1-3SG.SM	PST3	say	3SG.COMP	Mariam	C1.3SG.SM
	ṁ	jàasi	muumbaṅrù	anà					
	ṁ	jàasi	muumbaṅrù	anà					
	PST3	criticize	boy	ANA.DET					
	Malik's mother said Mariam criticized the boy.								
E9a)	ŋwè	ce	muumbaṅrù	à	ṁ	kòṅ	à	jàasi	Malik
	Man	REL	boy	C1-3SG.SM	PST3	like	C1-3SG.SM	criticize	Malik
	The man who the boy liked criticized Malik								
b)	ŋwè	ce	Malik	kòṅ	à	jàasi	muumbaṅrù	anà	
	Man	REL	Malik	like	C1-3SG.SM	criticize	muumbaṅrù	ANA.DET	
	The man who he liked criticized the boy.								
c)	ŋwè	ce	ṁ	kòṅ	Malik	à	jàasi	muumbaṅrù	anà
	Man	REL	PST3	like	Malik	C1-3SG.SM	criticize	muumbaṅrù	ANA.DET
	The man who liked Malik criticized the boy.								
d)	ŋwè	ce	ṁ	kòṅ	muumbaṅrù	à	jàasi	Malik	
	Man	REL	PST3	like	boy	C1-3SG.SM	criticize	Malik	
	The man who liked the boy criticized Malik								

4.4 More on long distance anaphor strategies

4.4.1 Position of the antecedent - Long-distance coreference is often constrained in ways that local coreference is not (especially: subject-orientation). Which possible syntactic positions can be occupied by a long-distance antecedent of the current strategy? Construct examples and give judgments where X = Zeke. In English, the independent pronoun strategy is all that works for these (i.e., where X = he or him). If your language is like English, then the reflexive form does not work in the position of X where X = Zeke. If your language does not use the simple independent pronoun, but another form, be sure to show not only the form that works, but the one that doesn't.

D11a)	Larì	à	ṁ	suṅ	Zeke	ene	Maik	kòṅ	ye	Larì	ka'	
	Larì	à	ṁ	suṅ	Zeke	e-ne	Maik	kòṅ	ye	Larì	ka'	
	Larry	C1-3SG.SM	PST3	tell	Zeke	3SG.SP.INTRO	Mike	like	3SG.OBJ	Larry	NEG	
	Larry told Zeke that Mike does not like X.											
b)	Zeke	à	ṁ	suṅ	Larì	ene	Maik	kòṅ	ye	Zeke	ka'	
	Zeke	à	ṁ	suṅ	Larì	e-ne	Maik	kòṅ	ye	Zeke	ka'	
	Zeke	C1-3SG.SM	PST3	tell	Zeke	3SG.SP.INTRO	Mike	like	3SG.OBJ	Zeke	NEG	
	Zeke told Larry that Mike does not like X.											
c)	Zeke	à	ṁ	suṅ	Larì	ene	ye	Zeke	kòṅ	Maik	ka'	
	Zeke	à	ṁ	suṅ	Larì	e-ne	ye	Zeke	kòṅ	Maik	ka'	
	Zeke	C1-3SG.SM	PST3	tell	Zeke	3SG.SP.INTRO	3SG.OBJ	Zeke	like	Mike	NEG	
	Zeke told Larry that X does not like Mike.											
d)	Larì	à	ṁ	suṅ	Zeke	ene	ye	Larì	kòṅ	Maik	ka'	
	Larì	à	ṁ	suṅ	Zeke	e-ne	ye	Larì	kòṅ	Maik	ka'	
	Larry	C1-3SG.SM	PST3	tell	Zeke	3SG.SP.INTRO	3SG.OBJ	Larry	like	Mike	NEG	
	Larry told Zeke that X does not like Mike.											
e)	Larì	rìṅ	ene	Zeke	ke	kwà'	ene	Maik	kòṅ	ye	Larì	ka'.
	Larì	rìṅ	e-ne	Zeke	ke	kwà'	e-ne	Maik	kòṅ	ye	Larì	ka'.
	Larry	know	3SG.COMP	Zeke	ASP.HAB	think	3SG.COMP	Mike	like	3SG.OBJ	Larry	NEG
	Larry knows that Zeke thinks that Mike does not like X.											

- f) Zeke rìŋ ene Lari ke kwà' ene Maik kòŋ ye Zeke ka'.
 Zeke rìŋ e-ne Lari ke kwà' e-ne Maik kòŋ ye Zeke ka'.
 Zeke know 3SG.COMP Larry ASP.HAB think 3SG.COMP Mike like 3SG.OBJ Zeke NEG
 Zeke knows that Larry thinks that Mike does not like X.
- D12a) Ma zhì Zeke ke kwà' ene Maik kòŋ ye ka'.
 Ma zhì Zeke ke kwà' e-ne Maik kòŋ ye ka'.
 Mother C1-3SG.POSS.FOC.ADJ Zeke ASP.HAB think 3SG.COMP Mike like 3SG.OBJ NEG
 Zeke's mother thinks that Mike does not like X.
- b) Ma zhì Zeke ke kwà' ene e kòŋ Maik ka'.
 Ma zhì Zeke ke kwà' e-ne e kòŋ Maik ka'.
 Mother C1-3SG.POSS.FOC.ADJ Zeke ASP.HAB think 3SG.COMP 3SG like Mike NEG
 Zeke's mother thinks that X does not like Mike.
- c) Zeke ke kwà' ene Maik ke kòŋ ye ka'.
 Zeke ke kwà' e-ne Maik ke kòŋ ye ka'.
 Zeke ASP.HAB think 3SG.COMP Mike ASP.HAB like 3SG.OBJ NEG
 Zeke thinks that Mike does not like X.
- d) ŋwà' Zeke zhi suŋ zhine Maik kòŋ ye ka'.
 ŋwà' Zeke zhi suŋ zhi-ne Maik kòŋ ye ka'.
 Letter Zeke C1a-3SG.SM say C1a-3SG.SP.INTRO Mike like 3SG.OBJ NEG
 Zeke's letter said that Mike does not like X.
- e) Zeke à m̄ yu' ene Meri à m̄ kòŋ ye ka'.
 Zeke à m̄ yu' e-ne Meri à m̄ kòŋ ye ka'.
 Zeke C1-3SG.SM PST3 hear 3SG.COMP Mary C1-3SG.SM PST3 like 3SG.OBJ NEG
 Zeke heard that Mary did not like X.
- f) A m̄ suŋ Zeke ane Meri à m̄ kòŋ ye ka'.
 A m̄ suŋ Zeke a-ne Meri à m̄ kòŋ ye ka'.
 3PL PST3 tell Zeke 3PL.SP.INTRO Mary C1-3SG.SM PST3 like 3SG.OBJ NEG
 Zeke was told that Mary did not like X. (if your language permits passive)
- D13a) Zeke à m̄ làa ene e sùsi zhii nyor
 Zeke à m̄ làa e-ne e sùsi zhii nyor
 Zeke C1-3SG.SM PST3 say 3SG.SP.INTRO 3SG dresss C1-3SG.POSS.SDJ body
 Zeke said that X had dressed X.
- b) Zeke à m̄ làa ene e m̄ lee nyor
 Zeke à m̄ làa e-ne e m̄ lee nyor
 Zeke C1-3SG.SM PST3 say 3SG.SP.INTRO 3SG PST3 wound body
 Zeke said that X had wounded X.
- c) Zeke à m̄ làa ene e m̄ wàashi zhii nyor
 Zeke à m̄ làa e-ne e m̄ wàashi zhii nyor
 Zeke C1-3SG.SM PST3 say 3SG.SP.INTRO 3SG PST3 tatoo C1-3SG.POSS.ADJ body
 Zeke said that X had tattooed X.

Consider potential antecedents in other non-subject syntactic positions, as allowed by your language (e.g., in English, John related to Bill that Mary had slandered him where Bill = him).

- a) Jôn à m̄ suŋ Bîl ene Meri à m̄ cep ye
 Jôn à m̄ suŋ Bîl e-ne Meri à m̄ cep ye
 John C1-3SG.SM PST3 tell Bill 3SG.SP.INTRO Mary C1-3SG.SM PST3 slander 3SG.OBJ
 John related to Bill that Mary had slandered him.
- b) Mè tuusi ŋwà' Pôl nè Meri ene e du fa nè ye
 Mè tuu-si ŋwà' Pôl nè Meri e-ne e du fa nè ye
 1SG send-CAUS book Paul PREP Mary 3SG.COMP 3SG go give PREP 3SG.OBJ
 I sent Paul's book through Mary so that she would give it to him

4.4.2 Antecedent properties

Person - Please replace Zeke in the Zeke paradigm of 4.4.1 with first and second person pronouns, and report the results. Even if most of the examples pattern exactly as third person cases do, please be careful to include sentences corresponding to (D13) in the Zeke paradigm.

- D11.1a) Lari à m̄ suŋ mè ene Maik kòŋ ye ka'

Larì à m̄ suŋ mè e-ne Maik kòŋ ye ka'
 Larry C1-3SG.SM PST3 tell 1SG 3SG.SP.INTRO Mike like 3SG.OBJ NEG
 Larry told me that Mike does not like X.

b) Mè m̄ suŋ Larì mene Maik kòŋ mè ka'
 Mè m̄ suŋ Larì me-ne Maik kòŋ mè ka'
 1SG PST3 tell Larry 1SG.SP.INTRO Mike like 1SG NEG
 I told Larry that Mike does not like X.

c) Wè m̄ suŋ Larì wene à kòŋ Maik ka'
 Wè m̄ suŋ Larì we-ne à kòŋ Maik ka'
 2SG PST3 tell Zeke 2SG.SP.INTRO 2SG.OBJ like Mike NEG
 You told Larry that X does not like Mike.

d) Larì à m̄ suŋ wè ene e kòŋ Maik ka'
 Larì à m̄ suŋ wè e-ne e kòŋ Maik ka'
 Larry C1-3SG.SM PST3 tell 2SG 3SG.SP.INTRO 3SG like Mike NEG
 Larry told you that X does not like Mike.

e) Larì rìŋ ene we ke kwà' wene Maik kòŋ ye ka'.
 Larì rìŋ e-ne we ke kwà' we-ne Maik kòŋ ye ka'.
 Larry know 3SG.COMP 2SG ASP.HAB think 2SG.COMP Mike like 3SG.OBJ NEG
 Larry knows that you think that Mike does not like X.

f) Mè rìŋ mene Larì ke kwà' ene Maik kòŋ mè ka'.
 Mè rìŋ me-ne Larì ke kwà' e-ne Maik kòŋ mè ka'.
 1SG know 1SG.COMP Larry ASP.HAB think 3SG.COMP Mike like 1SG NEG
 I know that Larry thinks that Mike does not like X.

D12.1a) Yàa ma ke kwà' ene Maik kòŋ mè ka'
 Yàa ma ke kwà' e-ne Maik kòŋ mè ka'
 C1-1SG.POSS.ADJ mother ASP.HAB think 3SG.COMP Mike like 1SG NEG
 My mother thinks that Mike does not like X.

b) Yòo ma ke kwà' ene wè kòŋ Maik ka'
 Yòo ma ke kwà' e-ne wè kòŋ Maik ka'
 C1-2SG.POSS.ADJ mother ASP.HAB think 3SG.COMP 2SG like Mike NEG
 Your mother thinks that X does not like Mike.

c) Mè ke kwà' mene Maik ke kòŋ mè ka'
 Mè ke kwà' me-ne Maik ke kòŋ mè ka'
 1SG ASP.HAB think 1SG.COMP Mike ASP.HAB like 1SG.OBJ NEG
 I think that Mike does not like X.

d) Yoo ŋwà' zhi suŋ zhine Maik kòŋ wè ka'
 Yoo ŋwà' zhi suŋ zhi-ne Maik kòŋ wè ka'
 C1a-2SG.POSS.ADJ letter C1a-3SG.SM say C1a-3SG.SP.INTRO Mike like 2SG.OBJ NEG
 Your letter said that Mike does not like X.

e) Mè m̄ yu' mene Merì à m̄ kòŋ mè ka'
 Mè m̄ yu' me-ne Merì à m̄ kòŋ mè ka'
 1SG PST3 hear 1SG.COMP Mary C1-3SG.SM PST3 like 1SG.OBJ NEG
 I heard that Mary did not like X.

f) A m̄ suŋ wè ane Merì à m̄ kòŋ wè ka'
 A m̄ suŋ wè a-ne Merì à m̄ kòŋ wè ka'
 3PL PST3 tell 2SG 3PL.SP.INTRO Mary C1-3SG.SM PST3 like 2SG.OBJ NEG
 You were told that Mary did not like X. (if your language permits passive)

D13.1a) Mè m̄ làa mene mè m̄ sùsi nyor
 Mè m̄ làa me-ne mè m̄ sùsi nyor
 1SG PST3 say 1SG.SP.INTRO 1SG PST3 sùsi body
 I said that X had dressed X.

b) Wè m̄ làa wene wè m̄ sùsi nyor
 Wè m̄ làa we-ne wè m̄ sùsi nyor
 2SG PST3 say 2SG.SP.INTRO 2SG PST3 sùsi body
 You said that X had dressed X.

- c) Mè m̄ làa mɛnɛ m̄ m̄ lee nyor
 Mè m̄ làa mɛ-ne m̄ m̄ lee nyor
 1SG PST3 say 3SG.SP.INTRO 1SG PST3 wound body
 I said that X had wounded X.
- d) Wè m̄ làa wɛnɛ wè m̄ lee nyor
 Wè m̄ làa wɛ-ne wè m̄ lee nyor
 2SG PST3 say 2SG.SP.INTRO 2SG PST3 wound body
 You said that X had wounded X.
- e) Mè m̄ làa mɛnɛ m̄ m̄ wàashi nyor
 Mè m̄ làa mɛ-ne m̄ m̄ wàashi nyor
 1SG PST3 say 3SG.SP.INTRO 3SG PST3 tatoo body
 Zeke said that X had tatooed X.
- f) Mè m̄ làa mɛnɛ m̄ m̄ wàashi nyor
 Mè m̄ làa mɛ-ne m̄ m̄ wàashi nyor
 1SG PST3 say 3SG.SP.INTRO 3SG PST3 tatoo body
 Zeke said that X had tatooed X.

4.4.2.2 Quantified antecedents - Review the examples in the Jack, Zeke and Edgar paradigms, replacing these names with "every child" and "no child" or "many children".

Jack paradigm D2a)

- a) Muu-wewɛ a m̄ byemi enɛ Meri kòŋ ye
 Muu-wewɛ a m̄ byemi e-ne Meri kòŋ ye
 Child- 3PL 3PL.SM PST3 admit 3SG.COMP Mary love 3SG.OBJ
 Every child admitted that Mary loved X.
- b) Muu mò' à m̄ ghàase enɛ Meri kòŋ ye ka'
 Muu mò' à m̄ ghàa-se e-ne Meri kòŋ ye ka'
 Child one C1-SG.SM PST3 suspect-PLU 3SG.COMP Mary love 3SG.OBJ NEG
 No child suspected that Mary loved X.
- c) Boo magòr a m̄ ce kwàshi anɛ Meri kòŋ woowèe
 Boo magòr a m̄ ce kwa-shi a-ne Meri kòŋ woowèe
 Childrrem many C1-SG.SM PST3 ASP.CONT thinking-PLU 3PL.COMP Mary love 3PL
 Jack was thinking that Mary loves X

Edgar paradigm D4ai)

- a) Muu-wewɛ à làa nè Bìl enɛ e tərntee njep ye
 Muu-wewɛ à làa nè Bìl e-ne e tərntee njep ye
 Child 3PL C1-3SG.SM ask PREP Bill 3SG.SP.INTRO 3SG trust PREP 3SG.OBJ
 Every child asked Bill to trust X.
- b) Muu mò' à làa nè Bìl enɛ e de' a ye ka'
 Muu mò' à làa nè Bìl e-ne e de' a ye ka'
 Child one C1-3SG.SM ask PREP Bill 3SG.SP.INTRO 3SG talk PREP 3SG.OBJ NEG
 No child asked Bill to talk to X.
- c) Boo magòr a làa nè Bìl anɛ a suŋ àmbò woowèe
 Boo magòr a làa nè Bìl a-ne a suŋ àmbò woowèe
 Children many 3PL.SM ask PREP Bill 3PL.SP.INTRO 3PL talk ADV 3PL
 Edgar asked Bill to talk about X.

Zeke paradigm D13)

- a) Muu-wewɛ à m̄ làa enɛ e sùsi zhii nyor
 Muu-wewɛ à m̄ làa e-ne e sùsi zhii nyor
 Child 3PL C1-3SG.SM PST3 say 3SG.SP.INTRO 3SG dresss C1-3SG.POSS.SDJ body
 Zeke said that X had dressed X.
- b) Muu mò' à m̄ làa enɛ e m̄ lee nyor ka'

Muu mò' à m̄ làa e-ne e m̄ læ nyor ka'
 Child one C1-3SG.SM PST3 say 3SG.SP.INTRO 3SG PST3 wound body NEG
 No child said that X had wounded X.

- c) Boo magòr a m̄ làa a-ne a m̄ wàashi wàp
 Boo magòr a m̄ làa a-ne a m̄ wàashi wàp
 Children many 3PL.SM PST3 say 3PL.SP.INTRO 3PL PST3 tatoo C6-3PL.POSS.ADJ
 mnyor
 m-nyor
 C6-body

Many children said that X had tattooed X.

Note: Try overt and null pronouns as the coreferent NP if your language has both.

- d) Suŋ nè weene wèe ce dù à rsùsi wee mnyor
 Suŋ nè wee-ne wèe ce dù à r-sùsi wee m-nyor
 Tell 2PL 2PL.SP.INTRO 2PL ASP.CONT go INF INF.dress C6-2PL.POSS.ADJ C6-bodies
 Tell us that you are going to dress X

4.4.2.3 Split antecedents - Sometimes coreference is permitted when the antecedents for the anaphor or pronoun are separate arguments. Please provide examples that correspond to those in the Ozzie (male) and Harriet (female) paradigm. In all cases, X = Ozzie and Harriet (together). For example, in English, (D14d) would be "Ozzie told Harriet that Bill dislikes *them*," where *them* would be Ozzie and Harriet.

- D14a) *Ozi à m̄ suŋ àmbò Harit nè woowèe.
 Ozzie C1-3SG.SM PST3 tell ADV Harriet PREP 3PL.OBJ
 Ozzie talked about Harriet to X.
- b) Ozi à m̄ suŋ àmbò wap btu nè Harit
 Ozzie C1-3SG.SM PST3 tell ADV C2-3PL.POSS.ADJ C2-heads PREP Harriet
 Ozzie talked about X to Harriet.
- c) Ozi à m̄ suŋ Harit ene woowèe a lô.
 Ozi à m̄ suŋ Harit e-ne woowèe a lô.
 Ozzie C1-3SG.SM PST3 tell Harriet 3SG.COMP 3PL 3PL.SM leave
 Ozzie told Harriet that X should leave.
- d) Ozi à m̄ suŋ Harit ene Bîl bàa woowèe
 Ozi à m̄ suŋ Harit e-ne Bîl bàa woowèe
 Ozzie C1-3SG.SM PST3 tell Harriet 3SG.COMP Bill dislike 3PL.OBJ
 Ozzie told Harriet that Bill dislikes X.
- e) Ozi à m̄ làa ene Harit ce kwà' ene Bîl bàa
 Ozi à m̄ làa e-ne Harit ce kwà' e-ne Bîl bàa
 Ozzie C1-3SG.SM PST3 say 3SG.SP.INTRO Harriet ASP.CONT think 3SG.COMP bill dislike
 woowèe
 woowèe
 3PL.OBJ
 Ozzie said that Harriet thinks that Bill dislikes X.

4.4.2.4 Discourse antecedents - Sometimes, LDA strategies do not have to have antecedents in the same sentence if the discourse connections between sentences is strong. Please translate the following scenarios using only the acceptable strategies that permit the corresponding English pronouns all to refer to Mark (English allows only the independent pronoun strategy). Then give please tell us which strategies do not work, providing a translation and gloss, if it is significantly different from your acceptable translations of (D15) and (D16) (save time by setting aside cases where a given strategy could not ever work in the relevant grammatical position, e.g., English *himself* can never be the subject of a tensed sentence). Suppose that in the following scenarios we are being told what was going on in Mark's mind.

- D15) Mak à wɛp ene muu zhii yu mbe di' bɔŋbɔŋ ka'.
 Mak à wɛp e-ne muu zhii yu mbe di' bɔŋbɔŋ ka'.
 Mark C1-3SG.SM fear 3SG.COMP child C1-3SG.POSS.FOC.ADJ be LOC place nice NEG.
 Ritu zhi koo ye ene àde' e tomì nfɛr zhii
 Ritu zhi koo ye e-ne àde' e tomì nfɛr zhii
 Shame C7-3SG.SM catch 3SG.OBJ 3SG.COMP can 3SG support brother C1-3SG.POSS.FOC.ADJ
 muuma ka'. Bfɛr bvii a be làa eke àmbò ye?
 muu-ma ka'. B-fɛr bvii a be làa e-ke àmbò ye?

mother-child NEG. C2-brothers C2-3SG.POSS.FOC.ADJ 3PL.SM FUT1 say 3SG.COMP.QADV 3SG.OBJ?

Mark feared that his son was not safe. He was ashamed that he could not protect his closest relative. What would his cousins think of him?

D16) Mak à ka' ye rliŋshi mbe ŋwà' a kaŋ. Bèe ce a ce
 Mak à ka' ye rliŋshi mbe ŋwà' a kaŋ. Bèe ce a ce
 Mark C1-3SG.SM then see picture LOC paper CONJ shake. People REL 3PL.SM ASP.CONT
 tomi ye a be mà'shi ye. E be gèe eke ka' suŋ
 tomi ye a be mà'shi ye. E be gèe e-ke ka' suŋ
 support 3SG.OBJ 3PL.SM FUT1 abandon 3SG.OBJ. 3SG FUT1 make 3SG.COM.Q CONJ tell
 zhìi mà?
 zhìi mà?
 C1-3SG.POSS.ADJ mother

Mark was shocked to see his picture in the paper. All of his supporters would abandon him. How would he tell his mother?

The following scenario concerns what Morris is reporting to us about Mark, where all of the English pronouns are understood as referring to Mark, not to Morris. Please translate using any (or every) strategy for coreference with Mark that works (including the independent pronoun strategy). Then give please tell us which strategies do not work, providing a translation and gloss, if it is significantly different from your acceptable translations of (D17). If your language permits null subjects understood as pronouns, don't forget to consider that strategy.

D17) Mòris à làa ene à m̄ ba nòŋ tatap nè Mak
 Mòris à làa e-ne à m̄ ba nòŋ tatap nè Mak
 Morris C1.3SG.SM say 3SG.SP.INTRO 3SG.SM PST3 be day difficult PREEP Mark
 Entòmbì Mòris à làa nè ye ene a zhèe
 Entòmbì Mòris à làa nè ye e-ne a zhèe
 First, Morris C1.3SG.SM say PREP 3SG.OBJ 3SG.SP.INTRO 3PL steal
 zhìi mutù. Awe, e m̄ t̄r à rhayà tàxì te e bo lor
 zhìi mutù. Awe, e m̄ t̄r à r-hayà tàxì te e bo lor
 C1-3SG.POSS.ADJ car Then 3SG PST3 have INF INF-hire taxi CONJ 3SG MOD take
 ye dù àgho mbedi' rfã'. Mòris à m̄ kwà' ene àde ntee
 ye dù àgho mbedi' rfã'. Mòris à m̄ kwà' e-ne àde ntee
 3SG.OBJ go ASSO LOC work. Morris 3SG.SM PST3 think 3SG.COMP may heart
 zhi ce yaŋ ye
 zhi ce yaŋ ye
 C1a-3SG.SM ASP.CONT worry 3SG.OBJ

Morris said it was a difficult day for Mark. First, Morris told him that his car had been stolen. Then he had to hire a taxi to take him to work. Morris thought he might be angry.

Now suppose that Mark has recently been in the news and he is the topic of our conversation. Speakers A and B use pronouns to refer to him. Please translate using the strategy or strategies in your language that permit coreference with Mark. Once again, please tell us which strategies do not work, providing a translation and gloss, if it is significantly different from your acceptable translations of (D18).

D18) A: Yê, a Mak nà
 Look be Mark DEM.DIS
 Look, there's Mark!
 B: E bòn sê.
 3SG handsome INTEN
 He is so handsome.
 A: Ade' m̄ nè kòŋ à rba ŋwa zhìi ka'.
 Ade' m̄ nè kòŋ à r-ba ŋwa zhìi ka'.
 Can, 1SG though want INF INF-bewife C1-3SG.POSS.FOC.ADJ NEG.
 I would not want to be his wife though.
 Bbyèŋge-wewe a ce dù a yě mbùu
 B-byèŋge-wewe a ce dù a yě mbùu
 C2.women-3PL 3PL.SM ASP.CONT go PREP 3SG.OBJ.POSS behind
 All the women are chasing him.
 B: Foŋ m̄ kwà' mene e ke nàatu gòr
 Foŋ m̄ kwà' m̄-ne e ke nàa-tu gòr

Also, 1SG think 1SG.COMP 3SG ASP.HAB praise-head INTEN

Also, I think he praises himself too much.

Comment: The only thing that is not possible is the addition of the possessive in the reflexive praise himself *nàatu* as the use of body parts will always involve a possessive. The insertion of the object possessive between locative morphemes is optional and can be *a yě mbùu* or *àmbùu ye*.

In considering your responses to this subsection, are there any generalizations that you think would be of interest to us in understanding the circumstances or nuances of meaning that a given choice of coreference strategy might reflect?

4.4.3 Blocking Effects

The agreement features of nominals intervening between an anaphor and its antecedent can sometimes affect the grammaticality of coconstrual in some languages.

4.4.3.1 Features of intervening subjects - The following examples test for an intervening subject that is mismatched for person, gender, or number. Construct more examples if you suspect that other feature combinations are relevant in your language. In each case in (D19), X = Larry, unless designated otherwise. If the only successful strategy permitted here is the independent pronoun strategy, then please indicate this.

- D19a) Lari ke kwà'shi ene Jôn ke wɛp ye
 Lari ke kwà'-shi e-nɛ Jôn ke wɛp ye
 Larry ASP.HAB think-PLU 3SG.COMP John ASP.HAB respect 3SG.OBJ.
 Larry thinks that John respects X.
- b) Lari ke kwà'shi ene mɛ ke wɛp ye
 Lari ke kwà'-shi e-nɛ mɛ ke wɛp ye
 Larry ASP.HAB think-PLU 3SG.COMP 1SG ASP.HAB respect 3SG.OBJ.
 Larry thinks that I respect X.
- c) Lari ke kwà'shi ene Merì ke wɛp ye
 Lari ke kwà'-shi e-nɛ Merì ke wɛp ye
 Larry ASP.HAB think-PLU 3SG.COMP Mary ASP.HAB respect 3SG.OBJ.
 Larry thinks that Mary respects X.
- d) Lari ke kwà'shi ene boombaŋrù a ke wɛp ye
 Lari ke kwà'-shi e-nɛ boo-mbaŋrù a ke wɛp ye
 Larry ASP.HAB think-PLU 3SG.COMP C2-boys 3PL.SM ASP.HAB respect 3SG.OBJ.
 Larry thinks that the boys respect X.
- e) Mbaŋrù a ke kwà'shi anɛ boombaŋrù a ke wɛp
 Mbaŋrù a ke kwà'-shi a-nɛ boo-mbaŋrù a ke wɛp
 C7-Men 3PL.SM ASP.HAB think-PLU 3PL.COMP C2-boys 3PL.SM ASP.HAB respect
 woowèe
 woowèe
 3PL.OBJ.
 The men think that the boys respect X. (X = the men)

Same tests, with the intervening subject in an intermediate clause:

- D20a) Lari ke kwà'shi ene Bìl rìŋ enɛ Dav ke wɛp ye
 Lari ke kwà'-shi e-nɛ Bìl rìŋ e-nɛ Dav ke wɛp ye
 Larry ASP.HAB think-PLU 3SG.COMP Bill know 3SG.COMP Dave ASP.HAB fear 3SG.OBJ
 Larry thinks that Bill knows that Dave respects X.
- b) Lari ke kwà'shi ene mè rìŋ mɛnɛ Dav ke wɛp ye
 Lari ke kwà'-shi e-nɛ mè rìŋ mɛ-nɛ Dav ke wɛp ye
 Larry ASP.HAB think-PLU 3SG.COMP 1SG know 1SG.COMP Dave ASP.HAB fear 3SG.OBJ
 Larry thinks that I know that Dave respects X.
- c) Lari ke kwà'shi ene merì rìŋ ene Dav ke wɛp ye
 Lari ke kwà'-shi e-nɛ Merì rìŋ e-nɛ Dav ke wɛp ye
 Larry ASP.HAB think-PLU 3SG.COMP Mary know 3SG.COMP Dave ASP.HAB fear 3SG.OBJ

- Larry thinks that Mary knows that Dave respects X.
- d) Lari ke kwà'shi ene boombaṅrù a rìṅ ane Dav ke wep
 Lari ke kwà'-shi e-ne boo-mbaṅrù a rìṅ a-ne Dav ke wep
 Larry ASP.HAB think-PLU 3SG.COMP C2-boy 3PL.SM know 3PL.COMP Dave ASP.HAB fear
 ye
 ye
 3SG.OBJ
- Larry thinks that the boys know that Dave respects X.
- e) Mbaṅrù a ke kwà'shi ane boombaṅrù a rìṅ ane Dav
 Mbaṅrù a ke kwà'-shi s-ne boo-mbaṅrù a rìṅ a-ne Dav
 Larry 3PL.SM ASP.HAB think-PLU 3PL.COMP C2-boy 3PL.SM know 3PL.COMP Dave
 ke wep woowèe
 ke wep woowèe
 ASP.HAB fear 3PL.OBJ
 The men think that the boys know that Dave respects. (the men = X)

4.4.3.2 Positions of the intervener - The above interveners were subjects (the most common case). We now look for interveners in other positions.

The following examples rely only on person mismatches (where X = Walter). If you also found number or gender mismatches above, give some examples. Once again, if all of these examples are only acceptable with the independent pronoun strategy, then just say so and provide translations.

- D21a) Waltà ke kwà'shi ene Bîl à suṅ Harì ene Dav ke
 Waltà ke kwà'-shi e-ne Bîl à suṅ Harì e-ne Dav ke
 Walter ASP.HAB. think-PLU 3SG.COMP bill C1-3SG.SM tell Harry 3SG.COMP Dave ASP.HAB
 wep ye
 wep ye
 respect 3SG.OBJ
 Walter thinks that Bill told Harry that Dave respects X.
- b) Waltà ke kwà'shi ene Bîl à suṅ mè ene Dav ke
 Waltà ke kwà'-shi e-ne Bîl à suṅ mè e-ne Dav ke
 Walter ASP.HAB. think-PLU 3SG.COMP bill C1-3SG.SM tell 1SG 3SG.COMP Dave ASP.HAB
 wep ye
 wep ye
 respect 3SG.OBJ
 Walter thinks that Bill told me that Dave respects X.
- c) Waltà à suṅ mè ene Dav ke wep ye
 Waltà à suṅ mè e-ne Dav ke wep ye
 Walter C1-3SG.SM tell 1SG 3SG.COMP Dave ASP.HAB respect 3SG.OBJ
 Walter told me that Dave respects X.
- d) Waltà à làa ene Dav à fa mè ṅwà' àmbò ye
 Waltà à làa e-ne Dav à fa mè ṅwà' àmbò ye
 Walter C1-3SG.SM say 3SG.COMP Dave C1-3SG.SM give 1SG book ADV 3SG.OBJ
 Walter said that Dave gave me a book about X.

Comment: Only the independent object pronoun can be used.

4.4.4 Islands

Do syntactic islands affect the acceptability of the current strategy? For all the examples in this section, Ira = X.

- D22a) Irà ke bàa mbùu ce Mèrì ke bàa ye
 Ira ASP.HAB resent fact REL Mary ASP.HAB hate 3SG.OBJ
 Ira resents the fact that Mary hates X.
- b) Irà ke wep ṅwè ce e ke kòṅ ye
 Ira ASP.HAB resent man REL 3SG ASP.HAB like 3SG.OBJ
 Ira respects the man who likes X.
- c) Irà ke làa ene ṅwè ce e ke kòṅ ye t̩ɔ̃bfee
 Irà ke làa e-ne ṅwè ce e ke kòṅ ye t̩ɔ̃bfee
 Ira ASP.HAB say 3SG.SP.INTRO man REL 3SG ASP.HAB like 3SG.OBJ intelligent

- Ira says that the man who likes X is intelligent.
- d) Irà à m̄ bip ene Bîl à ye ye le
 Irà à m̄ bip e-ne Bîl à ye ye le
 Ira C1-3SG.SM PST3 ask 3SG.COMP Bill C1-3SG.SM see 3SG.OBJ Q
 Ira asked whether Bill saw X.
- e) Irà à m̄ bip ànfě' ce Bîl à ye ye
 Irà à m̄ bip ànfě' ce Bîl à ye ye
 Ira C1-3SG.SM PST3 ask TEMP REL Bill C1-3SG.SM see 3SG.OBJ
 Ira asked when Bill saw X.
- f) Irà à m̄ ye ene Josh à m̄ v̄ àmbùu ye ka'
 Irà à m̄ ye e-ne Josh à m̄ v̄ àmbùu ye ka'
 Ira C1-3SG.SM PST3 see 3SG.COMP George C1-3SG.SM PST3 come ADV 3SG.OBJ NEG
 Ira did not realize that George followed X.
- g) Irà à m̄ làa ene àmbò Merì bòn, e be lòr ye
 Irà à m̄ làa e-ne àmbò Merì bòn, e be lòr ye
 Ira C1-3SG.SM PST3 say 3SG.SP.INTRO CONJ Mary beautiful 3SG FUT1 take 3SG.OBJ
 à ŋwa zhì
 à ŋwa zhì
 ADV wife C1-3SG.POSS.FOC.ADJ
 Ira said that Mary was pretty and that she would marry X.

Comment: Only the independent object pronoun can still be used here.

4.4.5 De se reading

There is a famous ambiguity in D23 depending on whether or not the subject of *believe* is aware that he is referring to himself. The distinction is between two readings where *his*=*Oedipus*, that is, we are not interested, for these cases, in readings where *his* is not *Oedipus*. Now imagine that Oedipus thinks his step-mother (Step) is his biological mother - he just calls her "mother", because Step is the only mother he has ever known. Now let us suppose that Oedipus is the only one in town who is unaware who his biological mother (Bio) is, perhaps because Bio is a notorious person of whom polite people do not normally speak. People in town, in spite of what they know, generally refer to Step as Oedipus' mother, since no one wants to bring up the subject of Bio. Then Bio, long out of town, makes a surprise visit to the town to see Oedipus, whom she finds scowling in his front yard, angry at Step because she has punished him. Bio spends some time with Oedipus, as others watch suspiciously, but Bio does not tell Oedipus who she is. Oedipus thinks Bio is nice. Then someone says D23a or D23b.

D23a)

Odipùs	à	kwà'	ene	zhì	mâ	bòn	e
Oedipus	C1-3SG.SM	think	3SG.COMP	C1-3SG.POSS.ADJ	mother	nice	vowel echo
Odipùs	à	kwà'	ene	mâ	zhì	bòn	e
Oedipus	C1-3SG.SM	think	3SG.COMP	mother	C1-3SG.POSS.FOC.ADJ	nice	vowel echo

Oedipus thinks/says *his* mother is nice.

Comment: In Limbum, interpretive ambiguity is resolved by placing the possessive before or after the verb. When focused i.e for Bio for example, the possessive is placed after the verb. In that case subject is the possessor but when the possessive is placed before the verb, the possessor of the object is another or the object is not BIO. So there is no De se reading in Limbum.

If your language is like English, then there is no morphological distinction between the pronouns in (D23a,b). Just say so and move on.

Comment: Such pronominal distinctions cannot be found in Limbum.