Anaphora in the African Languages - Questionnaire

NSF grant BCS-0303447: Principal Investigator - Ken Safir, Rutgers University

PART 1 General information

1.1 Language: In this section you are asked to identify your language or dialect (the subject language) and the information we ask of you will help make this identification more precise. We will fill in the Ethnologue code if you do not know it.

1. Name of the language: Ga

2. Ethnologue code (if you know it): gaa

3. Dialect and/or area: Ga is spoken mainly in the capital city, Accra and immediate surrounding areas.

4. What is the information you are providing based on? We assume all our participants are relying on their own judgments, but if you answer (b) in addition to (a), please explain with an attached note.
   (a) My own judgements (X)
   (b) Judgments by one or more consultants ( )

1.2 Identify yourself: In order to make full use of the information you provide, some information about your linguistic background is necessary. If you wish, your name and contact information will be excluded from the public version of this database. However, if you are a fellow linguist we encourage you to make this information available; this will make it possible to properly acknowledge your role in creating this database, and will also (if you wish) allow other linguists interested in this language to contact you.

Please provide the following information about yourself (the person completing the survey).

1. Name: Akua Agyei-Owusu

2a. Your address: 2210 Land Street Pearland, TX 77584

2b. E-mail address, if you have one: aaa8@rice.edu

3. Do you want the database to reveal your name and contact information? (You still must fill out a consent form, however you answer this question.)
   (X) I am willing to be identified
   ( ) I wish to remain anonymous

4. Your level of training in linguistics (circle accordingly).
   ( ) Post Ph. D.
   (X) Ph.D or M.A. student
   ( ) Undergraduate linguistics
       ( ) some courses
       ( ) linguistics major
       ( ) Training in related discipline
       ( ) philology
       ( ) language pedagogy
       ( ) other (please specify)
   ( ) related discipline (please specify)
   ( ) no linguistic training

5. If you are a linguist, please indicate the extent of your exposure to the following subfields. Also specify the broad school (e.g., GB or LFG syntax) if appropriate. Your background might be relevant to your choice of terminology in morphological and syntactic descriptions, etc.

school – functional/typological linguistics
Scale: little or none / some / intimately familiar.

(a) Syntax: intimately familiar
(b) Typological linguistics: some
(c) Formal semantics: little
(d) Pragmatics or discourse analysis: intimately familiar
(e) Other relevant subfield:

6. Your language biography
   a. What language(s) did your parents speak at home? Father – Akan, English Mother – Ga, English
   b. What language(s) do/did your parents speak natively? Father – Akan  Mother – Ga
   c. What language (languages) did you receive school instruction in?  English
   d. How old were you when you learned the subject language? It was my first language
   e. Do you speak an identifiable subdialect of this language?  No. Ga is more or less homogeneous. What is it called?
   f. Do you speak other dialects of the same language? No. Which ones?

1.3 Additional Consultants: If you are relying on the intuitions of additional language consultants (secondary informants), please collect the same information about those you consult, if that is possible. Your secondary informants will be anonymous participants (with all of their personal information confidential) unless they also complete a consent form and choose to be identified.

1.4 References: If it is convenient for you to do so, please inform us of any descriptive grammar or other references that you believe would be useful for us to know about which would assist us in putting the anaphora data in the context of a broader understanding of the grammar of your language. If you have a bibliography of work of this kind that you can inform us of or make available to us, that would be enormously helpful.

IMPORTANT NOTE: In order for us to use your questionnaire at all, we must have from you a signed copy of the consent form that we provide to you which insures (a) that you have had the opportunity to evaluate any risk or disadvantage to you in choosing to participate in this study, and (b) that you have made an informed decision on whether or not you want your role in our project to be publicly known. If you choose to remain an anonymous participant, all of the personal information your report to us will remain confidential.

Abbreviations

1  first person
2  second person
3  third person
AG  agentive
ANI  animate
COMP  complementizer
DISTR  distributive
DP  discourse particle
FOC  focus particle
FUT  future
HAB  habitual
IMP  imperative
IMPERS  impersonal
INAN  inanimate
INTENS  intensifier
QP  question particle
OBJ  object
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.

A1) John saw himself.

Comment 1: I would name this strategy the pronoun-he strategy or Strategy A. The element that expresses the reflexive relationship is the possessive NP made up of the pronominal possessor and the possessum he ‘body’. The possessive pronoun is obligatory and is coreferential with the subject of the construction. Without it the construction is ungrammatical.

A1i) *John na he
John na he
John see 3SG-body
John saw body.

Comment 2: In Ga, the possessive pronoun takes the same form as the subject pronoun.

Comment 3: Here, and throughout the questionnaire, he is glossed ‘body’. In some instances, though, it may be more appropriate to gloss it as ‘self’ as it refers to a more abstract sense of the self rather than to the physical being.

2.1.2 Is there another way, or are there other ways, to express coreference in.

No, there are no other ways to express coreference in A1.

2.1.3 Other verb types - Some languages use a special reflexive strategy with certain verbs, especially "commonly reflexive" verbs of grooming such as "wash", "shave", "bathe", "dress", etc.
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).

A2a) John washes himself.
   b) Mary cut herself. [accidentally]
   c) John is ashamed of himself.
   d) John destroyed himself.
   e) We hate ourselves.
   f) They praise themselves

Comment: The NULL OBJECT strategy (Strategy B) exists in Ga. But so far I can only think of one verb it applies to – ju ‘wash/bathe’.

A2a) John ju
   John
   John bathe
   John bathed himself/John washed.

The pronoun-he strategy can also be used for A2a)

A2ai) John ju ehe
      John
      John e-he
      John bathe 3SG-body
      John bathed himself/washed himself.

Comment 4 – For A2e) and A2f) the pronoun-he strategy is modified to some extent to yield what I would name the “object pronoun + intensifier + pronoun-he strategy” or simply Strategy C. This strategy ensures that the reflexive meaning alone is obtained. This is because for A2e) and A2f) use of the pronoun-he strategy alone results in ambiguity between a reflexive and a reciprocal meaning.

A2e) wənyɛ wɔdiento se wəhe
      wə-nyɛ-ɔ   wə-diento  wə-he
      1PL-hate-HAB 1PL-INTENS 1PL-body
      We hate ourselves.

Comment 5: The intensifier diento is somewhat functionally akin to emphatic pronouns in English. In Ga, just as in English, it follows a full noun or pronoun.

A2ei) Mido entse misumɔɔɔ  yele
       mi-diento-ɛ   mi-sumɔɔɔ  yele
       1SG-INTENS-DEF 1SG-like.NEG  yam
       I, myself, do not like yams.

Comment 6: As mentioned earlier, the use of Strategy C is necessary to specify the reflexive meaning conveyed by the corresponding English sentence in A2e). Without it and with the use of only the pronoun-he strategy the sentence would be ambiguous between a reflexive and a reciprocal meaning. This is always the case when there is a plural subject.

A2eii) wənyɛ wəhe
      wə-nyɛ-ɔ   wə-he
      1PL-hate-HAB 1PL-body
      We hate ourselves/We hate each other.

A2f) ame-tʃo-tʃe ame-diento ame-he
    ame-tʃo-tʃe ame-diento ame-he
    3PL-pinch 3PL-INTENS 3PL-body
They pinched themselves.

A2f) ametsotse amehe
    ame-tstse ame-he
    3PL-pinch 3PL-body
They pinched themselves/They pinched each other.

A2c) is expressed idiomatically and does not involve reflexivization.

A2c) John hi egbo
    John  hi    e-gbo
    John  face  PERF-die
John is ashamed of himself. (Lit: John’s face has died)

A2b) employs the pronoun-he strategy

A2b) Meele fo ehe
    Meele  fo  e-he
    Mary  cut  3SG-body
Mary cut herself.

A2d) Does not involve reflexivization

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?

A3a) John spoke to Mary.
   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)
   e) Mary gave the children themselves. (ind.object/object)
   f) Mary saw a book behind her. (subject/locative)
   g) John bought the book for himself. (benefactive)

A3a) No reflexive reading in Ga

A3b) John wie ehe sane
    John  wie  e-he  sane
    John  speak  3SG-body  story
John spoke about himself/John spoke about somebody else.

A3c) John gba Meele ehe sane
    John  gba  Meele  e-he  sane
    John  narrate  Mary  3SG-body  story
John told Mary about himself/John told Mary about herself/John told Mary about somebody else.

Comment 6: Strategy A (pronoun-he) is used for A3b) and A3c), but here pronoun + he is itself the possessor in a possessive noun phrase. The possessum is sane ‘story’. When pronoun + he occurs as the possessor it may result in ambiguity. e ‘his/her’ could refer to either John or Mary or somebody else. This can be disambiguated by using the object pronoun + intensifier strategy introduced earlier.

A3bi) John wie le-dientse ehe sane
    John  wie  le-dientse  e-he  sane
John speak 3SGOBJANI-INTENS 3SG-body story
John spoke about himself.

A3ci) John gba Mɛle le-dieŋtse e-he sane
John narrate Mary 3SGOBJANI-INTENS 3SG-body story
John told Mary about himself.

A3d) Bill gba wɔ wohe sane
Bill narrate 1PL 1PL-body story
Bill told us about ourselves.

A3e) & A3f) No reflexive reading in Ga

A3g) Strategy A

Comment 8: I cannot think of any obliques, partly because Ga has no prepositions or postpositions. Instead of prepositions or postpositions Ga has relational nouns, mostly body part nouns that occur as the possessum in a possessive NP and which indicate the location of an entity in relation to the possessor.
KS: Please give us some examples, that correspond to “the men told Mary about each other/themselves”, “the men placed the bricks behind/near/in front of/next to themselves (i.e., to indicate that they owned them)”, and “The men brought dates for/to each other/themselves.” Please use plurals and tell me if the possibility of having reflexive/reciprocal ambiguity is the same throughout.

A) Hiie gba Mɛle amehe sane
   hiie-ɛ gba Mɛle ame-he sane
men-DEF narrate Mary 3PL-body story
The men told Mary about themselves.

Comment: A) cannot have reciprocal meaning. It is ambiguous. It could mean ai) “The men told Mary about themselves” where “themselves” refers to the men as one collective unit. Perhaps they were telling stories about their days as members of an army unit and each soldier is contributing to the narrative. Or it could mean aii) that each man individually told Mary some story about their own life, so that in the end Mary heard as many different stories as there are men.
It could also mean that b) the men collectively told Mary stories about another group of people, say, another army unit, with each man contributing to the one narrative.
   If we want only the ai) and aii) meanings we would have to use strategy C.

B) Hiie gba Mɛle amediŋtse amehe sane
   hiie-ɛ gba Mɛle ame-dieŋtse ame-he sane
men-DEF narrate Mary 3PL-INTENS 3PL-body story
The men told Mary about themselves.

It is difficult to come up with a simple sentence to mean “The men told Mary stories about each other” where each man tells a story about another man in the group. The best I can come up with are the following three sentences:

C) Mɔ fɛɛ mɔ wie mɔ fɛɛ mɔ he sane e-tsɔɔ Mɛle
   Mɔ fɛɛ mɔ wie mɔ fɛɛ mɔ he sane e-tsɔɔ Mɛle
person all person talk person all person body sane 3SG-show Mary
Everybody talked about his friend to Mary.

D) Mɔ fɛɛ mɔ ye enaanyo he ɛʃheku ketsɔɔ Mɛle
   mɔ fɛɛ mɔ ye e-naanyo he ɛʃheku ke-tsɔɔ Mɛle
person all person eat 3PL-friend body gossip take-show Mary
Everybody gossiped about their friend to Mary.

E) Mɔ fɛɛ mɔ gba enaanyo he sane ketsɔɔ Mɛle
therefore be considered a distinct loca
these verbs is expressed with ordinary pronouns (pronouns that do not normally have to have an antecedent), which should have unusual argument structures in many languages. Some verb meanings you might try:

A4a) Etta likes herself.
b) Etta scares herself.
c) Etta worries herself.

A4) No new strategy. Strategy A employed.

2.1.5 Person and number - Some languages use different strategies depending on person or number. For example, in Dutch, the special reflexive pronoun sich used with certain verbs is only used in the third person; first and second person coreference for these verbs is expressed with ordinary pronouns (pronouns that do not normally have to have an antecedent), which should therefore be considered a distinct local coreference strategy.
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.

A5a) I saw myself.
b) You cut yourself [accidentally].
c) We will wash ourselves.
d) You must help yourselves.

KS: Please translate these.

A5) No new strategy. Strategy A employed.

A5a) Mina mihe
    mi-na mi-he
    1SG-see 1SG-body
    I saw myself.

b) Ofo ohe
    o-fo o-he
    2SG-cut 2SG-body
    You cut yourself.

c) Wɔbaaju wohe
    wɔ-baa-ju wɔ-he
    1PL-FUT-bathe 1PL-body
    We will wash ourselves. (absurd to have a group of people bathing each other but the reciprocal meaning is possible here)

d) Esa ni nyɔwa nyeho
    e-sa ni nyɛ-wa nyɛ-he
    3SG-fit that 2PL-help 2PL-body
    You must help each other/ You must help yourselves.

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:

A6a) Peter knows himself.
b) Peter (habitually) criticizes himself.
c) Peter is likely to praise himself.

KS: Please translate these.

A6) No new strategy.

A6a) Oko le ehe
    Oko le e-he
    Oko know 3SG-body
    Oko knows himself.

b) Oko je-ɔ e-he (daa)
    Oko je-ɔ e-he (daa)
    Oko insult-HAB 3SG-body (everyday)
    Oko insults himself (everyday).
c) Mihe miyọ ake Oko baajie ledientse eyi
mi-he-ɔ mi-ye-ɔ ake Oko baa-jie le-dientse e-yi
1SG-buy-HAB 1SG-eat-HAB that Oko FUT-remove 3SGOBJ-INTENS 3SG-head
I believe that Oko will praise himself.

(b) Do quantificational constructions involve a separate strategy?

A7a) Every boy looked at himself.
b) Every teacher introduced himself to Bob.
c) Every teacher introduced himself to Bob.
d) Some children only help themselves.

A7a) Nuu fẹ nuu kwe ehe
nuu fẹ nuu kwe e-he
man all man look 3SG-body
Every man looked at himself.

b) Yeie fẹ kadi John ke-tọọ amediẹntse ame-he
yei-e fẹ kadi John ke-tọọ ame-dientse ame-he
women-DEF all describe John take-show 3PL-INTENS 3PL-body
All the women described John to themselves

c) Tsọọ fẹ tọọ ke ehe yatsọ Bob
tsọọ fẹ tọọ ke e-he ya-tọọ Bob
teacher all teacher take 3SG-body go-show Bob
Every teacher introduced himself to Bob.

d) Gbekbei ekomei waa ame kome too ame-he
gbekbei-e ekomei wa-a ame kome too ame-he
children-DEF some help-HAB 3PL one only 3PL-body
Some children only help themselves.

KS: Please translate these.

A7) No new strategy.

(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.

A8) Wọn ri ara won.
they see body them
"They saw themselves." or "They saw each other." or "They saw their bodies."

Comment 9: Ga has no honorifics.

(d) The above were all tensed main clauses. Experiment with placing both coreferring arguments in various types of subordinate clauses, as your language allows.

A9a) Sol says that Alice loves herself.
b) Sol required that Alice praise herself.
c) Sol thought Alice should praise herself.
d) Sol asked Alice to praise herself.
e) Sol wants to praise himself.
f) Sol expects Alice to praise herself.
g) Sol heard Alice praising herself.
A9a)  Sol ke Alice sumo ehe
Sol  ke Alice sum-o e-he
Sol say Alice love-HAB 3SG-boby
Sol says Alice loves herself.

b)  Sol fa Alice ake ejie le-diŋtse eyi
Sol fa Alice ake e-jie le-diŋtse e-yi
Sol command Alice that 3SG-remove 3SGOBJ-INTENS 3SG-hair
Sol commanded Alice to praise herself.

c)  Sol jweŋ ake esa ni Alice ajie le-diŋtse eyi
Sol jweŋ ake e-sa ni Alice a-jie le-diŋtse e-yi
Sol think that 2SG-fit that Alice SUBJ-remove 3SGOBJ-INTENS 3SG-hair
Sol thought that Alice should praise herself.

d)  If the verb bi ‘ask’ is used the sentence will have to include a direct question quote. Literally: Sol asked Alice, “Will you praise yourself?” OR Sol asked Alice whether she could praise herself”. d) is best translated with kee ‘tell’

d)  Sol ke Alice ake ejie le-diŋtse eyi
Sol ke Alice ake e-jie le-diŋtse e-yi
Sol tell Alice that 3SGSUBJ-remove 3SGOBJ-INTENS 3SG-hair
Sol told Alice that she should praise herself.

e)  Sol ŋtao ni ejie le-diŋtse eyi
Sol ŋ-tao ni e-jie le-diŋtse e-yi
Sol PROG-want that 3SG-remove 3SGOBJ-INTENS 3SG-hair
Sol wants to praise himself.

f)  Cannot think of a word meaning “expect”. The closest translation will be e) directly above

g)  Sol nu ni Alice njie le-diŋtse eyi
Sol nu ni Alice njie le-diŋtse e-yi
Sol hear that Alice PROG-remove 3SGOBJ-INTENS 3SG-hair
Sol heard Alice praising herself.

KS: Please translate these anyway, even though it says not to bother. We have changed that instruction in the more recent version of the questionnaire.

A9b)  No new strategy.

2.2 Ordinary (potentially independent) pronouns

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.

A10a) I spoke with Abraham yesterday. He saw Lela.

b)  Where is Abraham? I saw him in the market.

c) We saw you. Did you see me/us?
A10a) Mike Oko wie nye. Ena Aku
Mi-ke Oko wie nye. E-na Aku OK
1SG-take Oko talk yesterday 3SG-see Aku
I spoke with Oko yesterday. He saw Aku.

A10b) Negbe Oko yɔɔ? Mina lɛ yɛ jara-a na
Negbe Oko yɔɔ? Mi-na lɛ yɛ jara-a no OK
where Oko be.at.HAB 1SG-see him at market-DEF on
Where is Oko? I saw him at the market.

A10c) Wɔna bo. Ona wɔ lo?
Wɔ-na bo. o-na wɔ lo OK
1PL-see 2SGOBJ 2SG-see 1PL QP
We saw you. Did you see us?

Comment 10: Ga has no agreement markers. It is a writing convention to write the subject pronominal and the following verb as one word.

KS: Do you mean by this that the pronoun is pronounced as a separate word or that it is not pronounced at all? What is the evidence that it is a separate word? Is it possible to insert anything between the subject pronoun and the verb, for example?

AA: Sorry this wasn’t clear. The pronoun is always pronounced. When the subject of the sentence consists of only a pronoun then this pronoun must immediately be followed by a verb (plus the verb’s prefixes if any). Adverbs cannot intervene. Some determiners can intervene but when they do the pronoun is immediately repeated and followed directly by the verb.

Example: Wɔtee shia
wɔ-tee shia
1PL-go home
We went home.

Wɔ fɛ wɔtee shia
Wɔ fɛ wɔ-tee shia
1PL all 1PL-go home
We all went home.

*Wɔ fɛ tee shia
Wɔ fɛ tee shia
1PL all go home
We all went home.

Of course when the pronoun is a possessor in a larger NP, it will be immediately followed by the possessed noun (and the noun’s modifiers if any).

Wɔnibii ferfeji fɛ laaje
wɔ-nibii ferfeji-ɛ fɛ laaje
1PL-things beautiful-PL-DEF all get.lost
All our beautiful things got lost.
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.

<table>
<thead>
<tr>
<th>Pronouns in Ga</th>
<th>Subject</th>
<th>Object</th>
<th>Possessive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>mi</td>
<td>mi</td>
<td>mi</td>
</tr>
<tr>
<td>2SG</td>
<td>o</td>
<td>bo</td>
<td>o</td>
</tr>
<tr>
<td>3SG animate</td>
<td>e</td>
<td>le</td>
<td>e</td>
</tr>
<tr>
<td>3SG inanimate</td>
<td>e</td>
<td>∅/le</td>
<td>e</td>
</tr>
<tr>
<td>1PL</td>
<td>wo</td>
<td>wo</td>
<td>wo</td>
</tr>
<tr>
<td>2PL</td>
<td>nye</td>
<td>nye</td>
<td>nye</td>
</tr>
<tr>
<td>3PL animate</td>
<td>amɛ</td>
<td>amɛ</td>
<td>amɛ</td>
</tr>
<tr>
<td>3PL inanimate</td>
<td>amɛ</td>
<td>∅/amɛ</td>
<td>amɛ</td>
</tr>
</tbody>
</table>

Comment 10: Possessive pronouns take the same form as subject pronouns. Ga has no indirect objects and hence no indirect object pronouns.

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.)

A10d) Ate fish. (meaning he/she/they/it/we/you/I ate fish)
  e) Hal hit (meaning Hal hit him/her/them/it/you/us/me)
  f) Hal talked to (meaning Hal talked to him/her/them/it/us/you/me)

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

A10di) Mina
       Mi-na
       1SG-see
       I saw. (meaning I saw it e.g. car)

A10dii) *Mina le
        Mi-na le
        1SG-see 3SGOBJANI
        I saw it. (i.e. a car)

A10d) *ye loo
      ye loo
      eat fish
      Ate fish.

A10e) *Oko yi
      Oko yi
      Oko hit
      Oko hit.

A10f) *Oko kewie
Comment 12: A10f) is acceptable in the context where Oko needed some object in order to aid him talk, like a microphone. In this instance the sentence would be translated “Oko talked with it” or “Oko used it to talk”. Since ‘microphone’ is inanimate its object pronoun is null. In the context of talking A10f) cannot be grammatical even if Oko were talking to the wall, since talking is by definition an ability reserved for only animate entities (normally humans but also animals in stories).

Comment 13: Null pronouns are used only for third person inanimate objects.

KS: Tell me if this summary is accurate: “There is no pro-drop of animate subjects in Ga, either in subject position or in object position
YES, i.e. agree
but the pronoun for inanimate things is null
Only for inanimate objects in certain constructions though, not inanimate subjects. Inanimate subject pronouns are always realised.
Thus pronouns corresponding to inanimates have no phonology wherever they would occur
NO, i.e disagree, they are realized for subjects and in some constructions for object as well.
but there is no distinction between grammatical functions that determines when a pronoun can be dropped.
I haven’t yet figured out all the constructions in which the inanimate object pronoun is obligatorily dropped. For now, it can be said that they are obligatorily dropped in serial verb constructions.

Example (SVC):  
Oko ke ma shikpoŋ
Oko ke ma shikpoŋ
Oko take put ground
Oko put (it e.g. the chair) on the ground.

*Oko ke le ma shikpoŋ
Oko ke le ma shikpoŋ
Oko take 3SGOBJ put ground
Oko put it (e.g. the chair) on the ground.

It appears also that it CANNOT be dropped in imperatives.

Sha le ojogbanŋ
sha le ojogbanŋ
scrub 3SGOBJ well
Scrub it (e.g. pan) well.

*Sha ojogbanŋ
sha ojogbanŋ
scrub well
Scrub (it e.g. pan) well.

If this is correct, could we correctly add the possessive pronoun to this generalization?
I’ve added a third column to the table above for possessive pronouns.

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.

A10g) Ali praised him.
   h) Ali liked him.
   i) Ali saw him
   j) Ali talked to him
   k) Ali sent a book to him.
   l) Ali helped him
   m) Ali surprised him
   n) Ali bought a book for him
   o) Ali read a book about him
   p) Ali found a book near him

A10h) Oko sumɔɔ le
   Okoɔi sumɔɔɔ levi
   Oko like-HAB 3SGOBJANI
   Oko likes him/her.

A10i) Oko na le
   Okoɔi na levi
   Oko see 3SGOBJANI
   Oko saw him/her.

A10j) Oko kɛ le wie
   Okoɔi kɛ levi wie
   Oko take 3SGOBJANI talk
   Oko talked to him/her.

A10k) Oko maje le wolo
   Okoɔi maje levi wolo
   Oko send 3SGOBJANI book
   Oko sent him/her a book.

A10l) Oko wa le
   Okoɔi wa levi
   Oko help 3SGOBJANI
   Oko helped him/her.

A10n) Oko he wolo e-ha le
   Okoɔi he wolo e-ha levi
   Oko buy book 3SG-give 3SGOBJANI
   Oko bought a book for him/her.

A10o) Oko kane wolo ko ni kɔɔ ehe
   Okoɔi kane wolo ko ni kɔɔ ehe
   Oko read book INDEF REL concern-HAB 3SG-body
   Oko read a book about him/her. OR Oko read a book concerning him/her.

A10p) Oko na wolo ko ka emasei
Oko, na wolo ko ka e₀-masri
Oko find book INDEF lie 3SG-side
Oko found a book near him/Oko found a book lying by his/her side.

A10pi) Oko na wolo ko ka lẹdịntsə emasri
Oko, na wolo ko ka lẹ̣ḍ̣ị̣ntsə e₁₀-masri
Oko find book INDEF lie INDEF-INTENS 3SG-side
Oko found a book near him/Oko found a book lying by his, her side.

2.3 Reciprocal Readings

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.

2.3.1 Oko ke Aku sumɔɔ amehe
Oko ke Aku sumɔɔ ame-he
Oko and Aku like-HAB 3PL-body
Oko and Aku like 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.

A11a) The women see each other.
 b) The boys washed each other.
 c) The men combed each other's hair.
 d) They argued with each other.
 e) The boys kicked each other.
 f) They hate each other.

A11g) Ameŋbe
Ame-ŋ-he
3PL-PROG-quarrel
They are quarrelling. (meaning they are quarrelling with each other)

A11a) Yeie na amehe
Yei-e na ame-he
women-DEF see 3PL-body
The women saw each other/The women saw themselves.

A11f) Ame nyeɔ amehe
Ame-nye-ŋ ame-he
3PL-hate-HAB 3PL-body
They hate each other/They hate themselves.

Comment 14: A11g) gives an example of the argument drop strategy, which is limited to only a few verbs. Otherwise the main strategy for reciprocals is the same as the main strategy for reflexives i.e Strategy A, except that for reciprocals the pronoun is always a plural one.

KS: You note that the emphatic strategy disambiguates between reflexive and reciprocal interpretations, but you do not mention any strategy that disambiguates to insure a reciprocal strategy. Is there one? In French, for example, where se with a plural subject is ambiguous between reflexive and reciprocal, it is possible to add l’un l’autre (‘the one the other’).
No, there isn’t.
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.

A12a) The men introduced Bill to each other.
   b) The travelers spoke to each other.
   c) The priests heard stories about each other.
   d) They left presents in front of each other.

Comment 15: Ga has no prepositions or postpositions (see comment 8).
KS: Please translate these sentences as naturally as possible so we can see what strategy is employed to get these meanings.

A12a) Hiie jie Bill shishi etsoo ame-fee
    Hiie jie Bill shishi e-tsoo ame-fee
    men-DEF remove Bill bottom 3SG-show 3PL-all
    The men introduced Bill to everybody.

A12a) was very difficult for me to translate. I asked two other native speakers and the above sentence is what they agreed was the best translation.

b) Gbefalsie gba sane
   gbefa-ho-i-ɛ     gba  sane
   traveler-AG-PL-DEF narrate story
   The travelers chatted.

c) Ossofoi nu saji ni mei ewie keko amenanemei ossooi ahe
   ossooi-i-ɛ     nu  sa-ji ni mei e-wie ke-kɔ   ame-nane-mei
   preist-PL-DEF hear story-PL which people PERF-speak take-pick 3PL-friend-PL
   ossooi-i     a-he
   priest-PL PL-body
   The priests heard stories that people had told concerning their fellow priests.

d) Msfeemo ke niske yama enaanyo hiie
   mɔ-feemɔ ke niske ya-ma e-naanyo hiie
   person-all-person take gift go-put 3SG-friend face
   Everybody put a gift in front of his friend. (“friend” here is used in a general sense to mean “another person” or “fellow human being”)

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.

A13a) We saw each other.
   b) You(pl.) must help each other.
   c) We will wash ourselves.
   d) They always criticize each other.
   e) Many boys kicked each other.

A13) No new strategy.

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) Sol says that the girls love each other.
   b) Sol required that the girls praise each other.
   c) Sol thought the girls should praise each other.
   d) Sol asked the girls to praise each other.
   e) The girls want to praise each other.
   f) Sol expects the girls to praise each other.
   g) Sol heard the girls praising each other.

KS: In spite of the instruction, I think it would be useful to have translations of these sentences (they will form useful contrasts for a later paradigm), so please translate them.

A14) No new strategy.

A9a) Sol kee gbekyeiẹ sumọ amehe
    Sol kee gbekyei-ẹ sumọ-ẹ ame-he
    Sol say girls-DEF love-HAB 3PL-body
    Sol says the girls love each other.

Comment: A9a) above is ambiguous between a reciprocal and reflexive meaning.

b) Sol fa gbekyeiẹ ake ameje amenanemeie ayi
   Sol fa gbekyei-ẹ ake ame-jie ame-nane-mei-ẹ a-yi
   Sol command girls-DEF that 3PL-remove 3PL-friend-PL-DEF PL-hair
   Sol commanded the girls to praise their fellow friends.

c) Sol jwen ake esa ni gbekyeiẹ ajie amenanemeie ayi
   Sol jwen ake e-sa ni gbekyei-ẹ a-jie ame-nane-mei-ẹ a-yi
   Sol think that 3SG-fit that girls-DEF SUBJ-remove 3PL-friend-PL-DEF PL-hair
   Sol thought that the girls should praise their fellow friends.

d) Sol kee gbekyeiẹ ake ameje amenanemeie ayi
   Sol kee gbekyei-ẹ ake ame-jie ame-nane-mei-ẹ a-yi
   Sol tell girls-DEF that 3PLSUBJ-remove 3PL-friend-PL-DEF PL-hair
   Sol told the girls that they should praise their fellow friends.

e) Gbekyeiẹ ọtao ni ameje amenanemeie ayi
   gbekyei-ẹ ọ-tao ni ame-jie ame-nane-mei-ę a-yi
   girls-DEF PROG-want that 3PLSUBJ-remove 3PL-friend-PL-DEF PL-hair
   The girls want to praise their fellow friends.

f) Cannot think of a word meaning “expect”. The closest translation will be e) directly above

g) Sol nu ni gbekyeiẹ ọjie amenanemeie ayi
   Sol nu ni gbekyei-ẹ ọ-jie ame-nane-mei-ẹ a-yi
   Sol hear that girls-DEF PROG-remove 3PL-friend-PL-DEF PL-hair
   Sol heard the girls praising their fellow friends.

2.4 Other types of local coreference

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

A15a) Paul lost his shoes.
b) Paul raised his hand. (e.g., in class)
c) Paul cut his hand. (e.g., accidentally)
d) Paul examined his hand.
e) Paul twisted his ankle (or ‘stubbed his toe’)

A15a) Oko laaje eshuu
Oko laaje e-shuu
Oko lost 3SG-shoes
Oko lost his shoes.

A15b) Oko wo enine nɔ
Oko wo e-nine nɔ
Oko lift 3SG-hand top
Oko raised his hand.

A15c) Oko fo enine
Oko fo e-nine
Oko cut 3SG-hand
Oko cut his hand.

A15d) Oko kwɛ enine
Oko kwɛ e-nine
Oko look 3SG-hand
Oko looked at his hand i.e. examined his hand.

A15) Oko pila enane wao
Oko pila e-nane wao
Oko hurt 3SG-foot finger
Oko hurt his toe.

Comment 16: No new strategy is used in 2.4.1.

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) Andrew's self-confidence annoyed Mary.
A17a) Andrew's introduction of himself impressed the teacher.
b) Andrew's evaluation of himself was too critical.
c) Their instructions to each other were not clear.
d) Their evaluations of each other were too generous.

A16ai) Andrew hepupumɔ wo Meele mli la
Andrew he-pupu-mɔ-ɔ wo Meele mli la
Andrew body-arrogant-NOM-DEF put Mary inside fire
Andrew’s arrogance annoyed Mary.

A16aii) Andrew henilee gbaa enaa
Andrew he-nilee gbaa e-naa
Andrew body-knowledge bother 3SG-mouth
Andrew’s conscience bothers him/Andrew has a guilty conscience.

Comment 17: he in A16ai) and A16aii) may be more appropriately translated as ‘self’.
KS: How productive is this use of he as a compound forming a reflexive reading? Is the meaning predictable or is it always a bit of an idiom?

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.

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.
List of Strategies

- Strategy A/ pronoun-he strategy for reflexives/reciprocals for both reciprocal and reflexive reading only when pronoun is plural
- Strategy B/ argument drop strategy/ null object strategy for both reflexives and reciprocals
- Strategy C/ object pronoun + intensifier + pronoun-he strategy for reflexives only
- Simple pronoun – Usually restricted to non-coargument antecedents. Not reciprocal (confirm?). Yes

Part 3 General details about the strategies

3.1 Marking

3.1.1

Part 3

Strategy A (pronoun-he strategy)

3.1 Marking

Strategy A – This strategy involves a special nominal which appears where an NP object would
Strategy B – This strategy involves dropping an argument
Strategy C – This strategy also involves a special nominal in object position preceded by an object pronoun and intensifier.

3.2.1 Productivity

Strategy A – This strategy is extremely productive. I cannot think of a single transitive verb for which it cannot be used.
Strategy B – unproductive. Only used for ju ‘bathe’.
Strategy C – extremely productive

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

Strategy A – has no exceptions
Strategy B – very restricted. Can only be used with one verb
Strategy C – has no exceptions

3.3.1 How marked or natural is this strategy?

All the strategies are unmarked. They are completely natural.

3.3.2 Is special intonation or emphasis necessary?

No, special intonation or emphasis is not required for any of the strategies.

3.3.3 Is a particular discourse context (e.g., contradicting) necessary?

No, no special discourse context necessary for Strategy A and B. Strategy C, however is often used when the action denoted by the verb is one that normally affects another entity, rather than the agent. This strategy therefore is used by the speaker to signal that the agent is carrying out an action on himself rather than on another entity, which would be the normal case.

It is also used for disambiguation when the subject is plural. It imparts only a reflexive interpretation on the sentence.

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

Yes, it is translated as ‘my/your/his/her body/self’. The forms translated as ‘our/your(pl)/their bodies/selves’ have both reflexive and reciprocal meaning.

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?
Yes, *he* “body/self” is an ordinary noun and can be possessed by any NP, even inanimate ones. The way it is used suggests its meaning has been bleached, it does not usually refer to the physical being (the preferred term for that being ghomo tso, literally ‘human being tree/stick’). As mentioned before the word now has a more abstract meaning such as ‘outer covering’ or when pertaining to humans ‘a sense of self’. Examples:

3.4.2 i) Ohe ye fɛo  
   o-he  ye  fɛo  
   2SG-body be beauty  
   You are beautiful.

ii) Gbee he ŋkpopo  
    gbee-ɛ  he  ŋ-kpopo  
    dog-DEF body PROG-shake  
    The dog is shivering.

iii) Atale he ɛw o muji  
    atale-ɛ  he  e-wɔ  muji  
    dress-DEF body 3SG-put dirt  
    The dress is dirty.

iv) Oko ŋfɔ enibii ahe  
    Oko  ŋ-fɔ  e-nibii  a-he  
    Oko PROG-was 3SG-things 3PL-body  
    Oko is washing his things/Oko is doing his laundry.

v) Ehe nyane ɛlɛ  
   e-he  nyane-ɔ  leɛ  
   3SG-body disgust-HAB her/him  
   S/he is easily disgusted.

vi) *Ehe nyane ɛhe  
    e-he  nyane-ɔ  e-he  
    3SG-body disgust-HAB 3SG-body  
    S/he is easily disgusted.

vii) Ehe ye mliila  
    e-he  ye  mliila  
    3SG-body be anger  
    S/he is irritating, annoying.

Comment 17: As you can see from the above examples *he* must always occur as the possessum in a possessive NP, even when it does not convey reflexive meaning. *He* also occurs as a complement in what are commonly called “inherent complement verbs (ICVs)”. These are verbs which consist of the verb and an NP complement which is obligatory. An example is fɔ he ‘wash/clean’. See 3.4.2 iv) above. In order to convey the meaning of ‘wash’ these two words must always be used together. fɔ when used by itself means ‘give birth’. Even in ICVs *he* must occur in a possessive NP. As example vi) above shows.

KS: I am not sure what the contrast between (v) and (vi) shows. Why is *ehe* in (vi) bad if it is a complement? It would appear that POSS.PRN-BODY acts as a pronoun in v., but it does not induce a principle B effect, yet (vi) is bad. Later on you note that Strategy A can act like a pronoun in subject position, but it does not seem to explain the difference between (v) and (vi). Any thoughts/clarifications?

I included vi) to show that POSS.PRN-BODY cannot at the same time be subject and object. While it may seem to make more sense (based on the fact that *ehe* in subject position acts like a pronoun) to have *ehe* as the object, this is not the case. As you pointed out v) is grammatical yet it violates Principle B. I guess a better contrast would have been viii) below which obeys Principle B but is ungrammatical.

viii) *Enyanɛ ɛhe  
    e-nyane-ɔ  e-he  
    3SG-disgust 3SG-body  
    S/he is easily disgusted.

I must add that such constructions that violate Principle B are marked and only occur with a limited number of verbs. Other
examples are:

ix)  Ehe tɨti lɛ
      ɛ-he      tɨti      lɛ-ej
      3SG-body  PROG-itch  him/her
S/he is itching.

Probably the reason why v) and ix) do not trigger Principle B effects is that ehe in these constructions retains a more literal sense than when it is used reflexively.

3.4.3 If the reflexive element has clear syntactic and part-of-speech sub-structure (e.g., head and modifiers, determiners,possesses) show it here.

he must always be possessed. Its pronominal possessor must agree with the antecedent in terms of number and gender.

3.5 The agreement paradigm

Strategy A

3.5.1 Give the morphological paradigm of each reflexive strategy. Be sure to vary all features that could cause the form of the reflexive to vary, even if some feature is only relevant in combination with a single combination of other feature values (e.g., include gender even if it is only relevant in nominative uses of the reflexive).

<table>
<thead>
<tr>
<th>Mihe</th>
<th>‘myself’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohe</td>
<td>‘yourself’</td>
</tr>
<tr>
<td>Ehe</td>
<td>‘himself/herself’</td>
</tr>
<tr>
<td>Wɔhe</td>
<td>‘ourselves’</td>
</tr>
<tr>
<td>Nyhe</td>
<td>‘yourselves’</td>
</tr>
<tr>
<td>Amehe</td>
<td>‘themselves’</td>
</tr>
</tbody>
</table>

Comment 18: he cannot be pluralized (*wɔ-he:i: IPL-body-PL). All the possessors are identical in form to subject pronouns. The reflexive only occurs in objective case, never subjective. If any of the reflexive forms above occur as a subject in a sentence then it is not being used reflexively, rather it is a simple genitive NP (as in examples 3.4.2 i) and vii)).

Strategy C

midɛŋɛ mihe  ‘myself’
boɗiɛŋɛ ohe  ‘yourself’
ledɛŋɛ ehe  ‘himself/herself’
woɗiɛŋɛ wɔhe  ‘ourselves’
yedɛŋɛ nyhe  ‘yourselves’
amɛdɛŋɛ amehe  ‘themselves’

3.5.2 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.)

The pronominal possessor of he must agree with the antecedent in number and gender.

3.6 Interaction with verb morphology - Incompatibilities

Strategy A

3.6.1 Tense, Mood, Aspect

Tense, mood and aspect do not affect the manifestation of Strategy A or B or C.

B3a) Gina jʊ-ehe
      Gina  jʊ-ɛ  e-he
      Gina  bathe-HAB  3SG-body
Gina washes herself.

b) Gina eju ehe
    Gina  e-ju  e-he
    Gina  PERF-bathe  3SG-body
Gina has washed herself.

bi) Gina ṃu ehe
   Gina ṃu-ehe
   Gina PROG-wash 3SG-body
   Gina is washing herself.

c) Esa ni Gina aju ehe
   e-sa ni Gina a-ju e-he
   3SG-fit COMP Gina SJV-wash3SG-body
   Gina should wash herself.

Strategy B

B3a) Gina ju-
    Gina ju-
    Gina bathe-HAB
    Gina washes herself.

b) Gina eju
    Gina e-ju
    Gina PERF-bathe
    Gina has washed herself.

Strategy C

B3a) Gina juọ lediẹntse ehe
    Gina juọ le-dienɓe e-he
    Gina bathe-HAB 3SGOBJ-INTENS 3SG-body
    Gina washes herself.

b) Gina eju lediẹntse ehe
    Gina e-ju le-dienɓe e-he
    Gina PERF-bathe 3SG-INTENS 3SG-body
    Gina has washed herself.

bi) Gina ṃu lediẹntse ehe
    Gina ṃu le-dienɓe e-he
    Gina PROG-wash 3SGOBJ-INTENS 3SG-body
    Gina is washing herself.

c) Esa ni Gina aju lediẹntse ehe
    e-sa ni Gina a-ju le-dienɓe e-he
    3SG-fit COMP Gina SJV-wash3SGOBJ-INTENS 3SG-body
    Gina should wash herself.
Comment 19: To save time and space I shall not translate sentences for strategy C. This is because Strategy C is possible wherever Strategy A is. Strategy C simply involves prefacing Strategy A with the object pronoun appropriate for the person and number of the coreferenced entity and the intensifier \textit{diɛŋtsɛ}.

3.6.2 Grammatical Function (GF) changing

In Ga causativity is expressed periphrastically by the verb \textit{ha} ‘make (lit: give)’. Example:

3.6.2 a) Oko ha Ama gbee shi
   Oko      ha Ama  gbee    shi
   Oko      make Ama  fall   ground
   Oko made Ama fall down.

However, the causee cannot be the reflexive NP made up of pronoun + \textit{he}.

b) *Oko ha ehe gbee shi
   Oko      ha    e-he  gbee    shi
   Oko  make 3SG-body fall   ground
   Oko made himself fall down.

or object pronoun + pronoun-he

c) *Oko ha le-diɛŋtsɛ ehe gbee shi
   Oko      ha le-diɛŋtsɛ e-he  gbee    shi
   Oko  make 3SG-INTENS 3SG-body fall   ground
   Oko made himself fall down.

Comment 20: Note that sentence b) above is ungrammatical for any meaning. So it cannot mean that Oko made someone else fall. This is possibly due to restrictions on long-distance coreference.

KS: Would 3.6.2b be good if you were to use a simple pronoun (i.e., without \textit{he})? Yes

i) Oko ha egbee shi
   Oko      ha    e-gbee    shi
   Oko  give 3SG-fall  ground
   Oko made him fall down.

3.6.3 If you are aware of operations or morphemes that cannot co-occur with this strategy, then list them here, providing an example an a brief statement of what the incompatible morphemes or constructions are.

There are no operations or morphemes I am aware of that any of the strategies are incompatible with.

3.7 Uses that are not quite coreference

Ga uses the pronoun-\textit{he} strategy in ways that do not have a reflexive interpretation. It is usually used when some attribute is being assigned to an entity. In such cases it can occur as the subject in a predicate nominal construction:

3.7i) Ohe ye f/o
    o-he       ye  f/o
    2SG-body be beauty
    You are beautiful.

ii) Ehe ye gbeyei
    e-he      ye  gbeyei
    3SG-body be  fear
    She is wonderful/fearful.

It may also occur as the head in an NP containing an adjectival modifier. Adjectives in this construction type tend to be negative and so the construction is mainly utilized for insults:
iii) Kwɛm tóc mujimuji
kwɛ-mɔ e-he muji-muji
look-IMP 3SG-body dirty-dirty
Look at his dirty self!

iv) Shi bic ke ohe gbeyeigbeyeie
shi bic ke o-he gbeyeigbeyei-ɛ
leave here with 2SG-body ugly-ugly-DEF
Get out of here with your ugly self!

Comment 21: In 3.7iv) above ohe does not have a reflexive interpretation but it still has an anaphoric interpretation since the pronoun o has coreference with the implied but unrealized second person subject.

KS: I suspect this is more like concord agreement, but to say so would require some assumptions about copulas that are not directly relevant here.

Pronoun-he may also occur simply as a subject or object in a sentence, without any reflexive meaning.

v) Ohe ewo muji
 o-he e-wo muji
2SG-body 3SG-put dirt
You are dirty (appearance).

vi) Ake mama ha ehe
 a-ke mama ha e-he
3PL.UNSPEC-take cloth cover 3SG-body
S/he was covered with a piece of cloth/ ‘They’covered him/her with a piece of cloth.

NOTE: These non-coreference uses of Strategy A are not applicable to Strategy C. Strategy C has no non-coreferent uses:

3.7ia) *Bodientse ohe ye feo
        bo-dientse o-he ye feo
you-INTENS 2SG-body be beauty
You are beautiful.

iia) *Ledientse ehe ye gbeyei
        le-dientse e-he ye gbeyei
3SGOBJ-INTENS 3SG-body be fear
She is wonderful/fearful.

iiiia) *Kwɛm ledientse ehe mujimuji
        kwɛ-mɔ le-dientse e-he muji-muji
look-IMP 3SGOBJ-INTENS 3SG-body dirty-dirty
Look at his dirty self!

iva) *Shi bic ke bodientse ohe gbeyeigbeyeie
        shi bic ke bo-dientse o-he gbeyeigbeyei-ɛ
leave here with 2SG-INTENS 2SG-body ugly-ugly-DEF
Get out of here with your ugly self!

via) *Ake mama ha ledientse ehe
        a-ke mama ha le-dientse e-he
3PL.UNSPEC-take cloth cover 3SGOBJ-INTENS 3SG-body
S/he was covered with a piece of cloth/ ‘They’covered him/her with a piece of cloth.

3.7.1 Ga has some inherent complement verbs for which the obligatory complement is he. Examples are fɔ he ‘wash/clean’, shwa he ‘regret’, jɔɔ he ‘rest’, sə he ‘coil up’
3.7.1 i) Eshwa ehe
  e-shwa     e-he
  3SG-regret  3SG-body
  S/he regretted (his/her actions).

ii) Adole jɔɔ ehe
    Adole       jɔɔ       e-he
    Adole       rest     3SG-body
    Adole rested.

iii) Adole e-su ehe ye saa mli
     Adole       e-su      e-he     ye     saa     mli
     Adole       PERF-coil 3SG-body be.located bed inside
     Adole is coiled up in bed.

3.7.2 Emphatic or intensifier

B1ci)  John kpe loo le-dieŋtse
       John       kpe     loo    le-dieŋtse
       John chew fish him-INTENS
       John ate fish himself.

ii)  John dieŋtse kpe loo
     John       dieŋtse   kpe     loo
     John       INTENS chew fish
     John ate fish himself.

Comment 22: B1ci) and B1cii) will have the C) interpretation i.e. that John ate the fish all by himself, no one helped him.

di)  John dieŋtse-e ekpe loo
     John       dieŋtse-e  e-kpe     loo
     John       INTENS-TOP 3SG-chew fish
     John himself ate fish/Even John ate fish.

Comment 23: Bdi) will have the D) interpretation i.e. that contrary to expectation, John ate fish. John in Bdi) is topicalized.

3.7.3 Middle

None of the strategies are used for middle.

3.7.4 Distributive, sociative etc.

No such use for any of the strategies

3.7.5 Deictice 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)?

No, it cannot.

B5a)  Oko e-naaa ehe
      Okoᵊ  e-naaa     e-heᵊ-he
      Oko       PERF-see.NEG 3SG-body
      Oko did not see himself.

b)  Mɛɛle sumɔɔ ehe lo
     Mɛɛleᵊ  sumɔ-ɔ     e-heᵊ-he     lo
     Mary      like-HAB 3SG-body QP
Does Mary like herself?

c) *Ehe tee skul nye
   e-he      tee       skul    nye
   3SG-body  go.pst    school  yesterday
   Herself/Himself went to school yesterday.

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

No, it cannot.

B6a) Bill je ehe
   Bill, je   e-he
   Bill insult 3SG-body
   Bill insulted himself.

b) *Mei pii sumɔɔ loo shi ehe sumɔɔ
   mei     pii    sumɔɔ    loo    shi     e-he   sumɔɔ
   people many like.NEG fish but 3SG-body like-HAB
   Many people do not like fish but he likes them.

*Can the form in question be used in a sense like that of English generic one (which is not evenly acceptable for English speakers in non-subject environments). Or is there a meaning that means "arbitrary person"?*

No, none of the reflexive strategies is used in this way.

3.7.6 Focus

None of the strategies are used to mark focus

B15) Namɔ (ni) okwaafoi na
   Namɔ (ni) okwaafo-i-e na
   who FOC farmer-PL-DEF see
   Who did the farmers see?

   Amɛ na ɛ
   amɛ    na   ɛ
   3PL    see him
   They saw him.

   Le (ni) amɛ na
   le     (ni)  amɛ    na
   him    FOC  3PL    see
   It is him they saw.

B16) Okwaafoi enaaa Mary. Le (ni) amɛ na
   okwaafo-i-e e-naaa Mele. le (ni) amɛ na
   farmer-PL-DEF PERF-see.NEG Mary. him FOC 3PL see
   The farmers did not see Mary. It is him they saw.

Comment 22: The focus particle ni is optional. I personally tend to leave it out more often than not. However when it is not realised its low tone remains and combines with the high tone of the preceding syllable to form a falling tone on that syllable.

3.8 Proxy readings
B8a)  Oko kwe ehe ye ashwishwe mli
      Oko  kwe  e-he  ye  ashwishwe-e  mli
      Oko  look  3SG-body  be.at  mirror-DEF  inside
      Oko looked at himself in the mirror.

aii)  Oko kwe shiu ni asho ni eje le pepepe'-e
       Oko  kwe  shiu-e  ni  a-sho  ni  e-je  le  pepepe-e
       Oko  look  statue  COMP  3PLUNSPEC  COMP  3SG-resemble  3SGOBJ-DEF  exactly-DEF
       Oko looked at the statue that had been made to look exactly like him.

b)   *Oko kaneko ehe ye Fante mli
     Oko  kan-e-ko  e-he  ye  Fante  mli
     Oko  read-NEG  3SG-body  be.at  Fante  inside
     Oko hasn’t read himself in Fante.

Comment 23: In B8b) I do not think  "ehe" can stand for ‘Oko’s writings’. As it stands this sentence can only refer to a situation where Oko had writings scribbled all over his body in Fante (a language) and he had, at the time of the utterance, not read those writings. Even that scenario may produce an unacceptable sentence for many speakers.

B9a)  *Oko ju ehe ojogbaŋ, koni ekafite su-e (ehe=some clay statue of Oko)
      Oko  ju  e-he  ojogbanŋ  koni  e-ka-fite  su-e
      Oko  bathed  3SG-body  well  so.that  3SG-NEG-clay  clay-DEF
      Intended: Oko bathed himself well, so as not to damage the clay.

Comment 24: "ehe" in B9a) cannot refer to some moulded figure, it MUST refer to Oko. Even when it does refer to Oko the purpose clause referring to not ruining the clay makes the sentence very odd (though still grammatical) and therefore unacceptable. If you want to talk about Oko washing/bathing a statue of himself then the object of "ju he" should be "shiu ‘statue’".

a)  Oko ju shiu ni asho ni eje le pepepe he ojogbanŋ....
     Oko  ju  shiu-e  ni  a-sho  ni  e-je  le  pepepe-e  he  ojogbanŋ-
     Oko  bathe  statue-DEF  REL  3PLIMPERSONS-mould  so.that  3SG-resemble  him  exactly-DEF  body  carefully
     Oko washed the statue that looks exactly like him carefully....

b)   *Oko ju ojogbanŋ koni ekafite su-e (where Oko bathed some clay statue of himself)
     Oko  ju  ojogbanŋ  koni  e-ka-fite  su-e
     Oko  bathed  well  so.that  3SG-NEG-clay  clay-DEF
     Intended: Oko bathed himself well, so as not to damage the clay.

Comment 25: B9b) above can only mean that Oko bathed himself. This is the null object strategy. It can only have a reflexive interpretation.

c)   *Yoo saa ehe blloo koni ekafite su-e (where the woman dressed up a statue of herself)
     yoo-e  saa  e-he  blloo  koni  e-ka-fite  su-e
     woman  fix  3SG-body  slowly  so.that  3SG-NEG-clay  clay-DEF
     Intended: The woman dressed herself carefully so as not to destroy the clay (where herself=the statue).

d)  * Yoo saa blloo koni ekafite su-e (bad for any meaning)
woman fix slowly so.that 3SG-NEG-ruin clay-DEF
Intended: The woman dressed carefully so as not to destroy the clay

Comment 26: B9d) above is ungrammatical for any meaning because the verb for ‘get dressed’ is an ICV made up of saa ‘fix’ + he ‘body’. Without the complement he the verb does not mean to ‘get dressed’

e) *Oko na ehe yɛ ple-ɛ mli (where Oko is looking at an actor playing him)
Oko na e-he yɛ ple-ɛ mli
Oko see 3SG-body be.at play-DEF inside
Intended: Oko saw himself in the play (where Oko sees the actor playing him)

B10a) *Arama kɛ esumɔ ni mei akane le yɛ Fante mli. (where le = Arama’s writings)
Arama kɛ ee-sumɔ ni mei a-kane le yɛ Fante mli
Arama say 3SGPROG-like COMP people PL-read her be.at Fante inside
Arama says she wants people to read her in Fante.

b) *Oko jwɛŋ ake ehe yɛ feo (where it is a statue of Oko that is handsome)
Oko jwɛŋ ake e-he yɛ feo
Oko think that 3SG-body be handsome
Oko thinks he is handsome.

B11) Like the examples above, proxy readings are not possible for these either.

3.9 Ellipsis

3.9 a) Oko sumɔ ehe fe Arama (more than he likes Arama)
Oko sumɔ-ɛ e-he fe Arama
Oko like-HAB 3SG-body surpass Arama
Oko likes himself more than Arama.

Comment 26: For 3.9a) only the reading i) is possible, where Oko likes himself more than he likes Arama.
KS: Please for a sentence like 3.9.a with a plural subject and then tell me whether or not this can have a reciprocal reading (e.g. they like each other more than they do Arama).

i) Oko ke Aku sumɔ amehe fe Arama (more than he likes Arama)
Oko ke Nii sum-ɛ ame-he fe Arama
Oko and Nii like-HAB 3SG-body surpass Arama
Oko and Aku like each other more than Arama/Oko and Aku like themselves more than Arama.

The reciprocal meaning is possible, as is the reflexive.

Part 4 – Exploration of syntactic domains

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.

Yes, Strategy A and C can.

C1a)  
Oko na ehe  
Oko na e-he  
Oko see 3SG-body  
Oko saw himself.

b)  
Yeie kadi amhe  
Ye-i-e kadi ame-he  
women-DEF describe 3PL-body  
The women described themselves.

ci)  
Nye buutubutui nyhe  
nye buutu-buutu-i nye-he  
2PL kick-kick-DISTRIB 2PL-body  
You (more than two people) kicked each other.  
*You kicked yourselves.

cii)  
Nye buutu nyhe  
nye buutu nye-he  
2PL kick 2PL-body  
You (just two people) kicked each other.  
?You kicked yourselves.

ciii)  
Nye buutu nye-dienståse nyhe  
nye buutu nye-dienståse nye-he  
2PL kick 2PL-INTENS 2PL-body  
You (two or more) kicked yourselves.

civ)  
*Nye buutubutui nyedienståse nyhe  
nye buutu-buutu-i nye-dienståse nye-he  
2PL kick-kick-DISTRIB 2PL-INTENS 2PL-body  
You (more than two people) kicked yourselves.

Comment 27: The distributive suffix –i is used to indicate that an action was carried out by multiple agents individually on multiple patients. Therefore the agent of a verb that is marked DISTRIB must necessarily be plural. When the distributive is used the agents cannot be the same as the patients, hence the ungrammaticality of the reflexive interpretation for ci) and also civ). Normally a sentence of the form PRONOUN(PL) + VERB +PRONOUN-he will result in ambiguity between a reflexive and a reciprocal interpretation. However, for cii) the reflexive interpretation sounds odd to me, perhaps only because of the semantic oddity of kicking your own self. As ciii) shows the use of the intensifier dienståse disambiguates between reflexive and reciprocal and imparts a reflexive meaning alone to the utterance.

The distributive is used mainly for dynamic verbs or active verbs. Hence cv) below is ungrammatical because the verb na ‘see’ is stative or inactive.

cv)  
*Nye nanai nyhe  
nye na-na-i nye-he  
2PL see-see-DISTRIB 2PL-body  
You saw each other.

cvi)  
Nye na nyhe  
nye na nye-he
2PL see 2PL-body
You saw each other/You saw yourselves.

d) Aku je ehe
   Aku je e-he
   Aku insult 3SG-body
   Aku insulted herself.

Comment 27: Strategy C (object pronoun + INTENS + pronoun he) can be used with all canonical transitives (see C2e below) except those that occur in the distributive (See 4.1.1.1 C1civ) above). As mentioned earlier Strategy B (null object strategy) can only be used with the verb ju ‘bathe’.

C1e) Oko na ledientse ehe
   Oko na le-dientse e-he
   Oko see 3SGOBJ-INTENS 3SG-body
   Oko saw himself (himself and nobody else).

4.1.1.2 Commonly reflexive predicates

C3a) Aku ju ehe
    Aku ju e-he
    Aku bathe 3SG-body
    Aku bathed herself.

   bi) Aku ku eyitswei
     Aku kû e-yitswei
     Aku cut 3SG-yitswei
     Aku, cut her, hair.

   bii) *Aku ku e-he yitswei
      Aku, kû e-he yitswei
      Aku cut 3SG-body hair
      Aku, cut her, hair.

   biii) Aku ku e-he yitswei
      Aku, kû e-he yitswei
      Aku cut 3SG-body hair
      Aku, cut her, hair.

Comment: Appropriate for the scenario where Aku cuts her dog’s hair. The possessor of he ‘body’ in this context must be an entity with all over body hair, such as a furry animal).

c) Gbekyoo-e fo ehe
   gbekyoo-e fo e-he
   girl-DEF cut 3SG-body
   The girl cut herself.

Strategy C (object pronoun + INTENS + pronoun-he) can also be used with verbs of grooming etc.
C3e) Aku ju le-dientse e-he
    Aku ju le-dientse e-he
    Aku bathe 3SGOBJ-INTENS 3SG-body
    Aku bathed herself.

f) Aku ku le-dientse eyitswe
    Aku kü le-dientse e-yitswe
    Aku cut 3SGOBJ-INTENS 3SG-yitswe
    Aku cut her own hair.

e) Aku ku le-dientse e-he yitswei
    Aku kü le-dientse e-he yitswe
    Aku cut 3SGOBJ-INTENS 3SG-body hair
    Aku cut her hair.

4.1.1.3 Psychological predicates

C4ai) Oko nyɛ e-he
    Oko nye-ɔ e-he
    Oko hate-HAB 3SG-body
    Oko hates himself.

aii) Oko she-ɔ e-he gbeyei
    Oko she-ɔ e-he gbeyei
    Oko ?-HAB 3SG-body fear
    Oko fears himself.

Comment 28: The verb meaning ‘fear(v.)’ in Ga is the ICV she gbeyei. The first element in the ICV, she, has no meaning outside of this ICV, hence the absence of a gloss for it.

bi) Cannot be rendered with a reflexive
    Oko hiɛ egbo
    Oko hiɛ e-gbo
    Oko face PERF-die
    Oko is ashamed (of himself).

bii) *Oko hiɛ egbo e-he
    Oko hiɛ e-gbo e-he
    Oko face PERF-die 3SG-body
    Oko is ashamed (of himself).

ci) Oko ŋhao ye nitsumọ ni enaaaa he
    Oko ŋ-hao ye nitsumọ-ɔ ni e-naaa-a he
    Oko PROG-worry be.located work-DEF REL 3SG-get.NEG-DEF body
Oko is worrying about the fact that he is not finding a job.

cii) *Oko ŋ hao ye (l[ei]̤[e]̤nts[ei]) ehe

Oko PROG-worry be.located (3SGOBJ-INTENS) 3SG-body
Oko is worrying about himself.

d) Does not really have a Ga equivalent. Closest in meaning does not use a reflexive.

e) Oko gbaa ehe naa

Oko gba-a e-he naa
Oko split-HAB 3SG-body mouth
Oko bothers himself.

Comment 29: All the predicates for which the pronoun-
he strategy (Strategy A) can be used can also be rendered with the
object pronoun + intensifier + pronoun-he strategy (Strategy C) except where there is a distributive verb as in 4.1.1.1 C1). In
the same vein, all the predicates which do not allow use of Strategy A also do not allow use of Strategy C.

4.1.1.4 Creation and destruction predicates

C5a) Cannot be rendered with a reflexive.

b) *Tsonei ma amehe

Tsone-i-e ma ame-he
machine-PL-DEF build 3PL-body
The machines built themselves.

c) *Atale kpe ehe

Atale-e kpe e-he
dress-DEF sew 3SG-body
The dress sewed itself.

d) Gbomo adesa e-bono ehe

Gbomo adesa e-bono e-he
Human human 3SG-create.NEG 3SG-body
Man did not create himself.

e) Oko gbe ehe

Oko gbe e-he
Oko kill 3SG-body
Oko killed himself.

Comment 30: Verbs of creation cannot have inanimate subjects, hence the unacceptability of C5b) and C5c).

KS: How would you render the meanings of a-c?

5b) and 5c) are very difficult to translate because their semantic content is so odd. i) below may help:

i) Fɔsi ebɔɔɔ amehe, Nyɛɛmɔ ni bɔ ame
Flowers don’t create themselves, God creates them.

5a) Yeie gbegebi amedienste amiehe
yei-e  gbe-gbe-i  ame-dienste  ame-he
women-DEF  kill-kill-DISTRIB  3PL-INTENS  3PL-body
The women killed themselves.

4.1.1.5 Verbs of representation

C6a) Does not involve a reflexive.

b) Aku wie eha ehe
   Aku  wie  e-ha  e-he
   Aku  speak  3SG-give 3SG-body
   Aku spoke for herself.

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.

Comment 31: Ga does not have the grammatical relation of indirect object. In the following sentences pronoun-he is direct object

C7a) Adoley ke nkeee ha ehe
   Adoley  ke  nkeee-e  ha  e-he
   Adoley  take  gift-DEF  give  3SG-body
   Adoley gave the gift to herself.

b) John ke shiaa tsoo ehe
   John  ke  shia-a  tsoo  e-he
   John  take  house-DEF  show  3SG-body
   John showed the house to himself.

C8a) Adoley ha ehe nkeee
   Adole  ha  e-he  nkeee
   Adole  give  3SG-body  gift
   Adoley gave herself a gift.

b) Oko ke ehe tsoo gbekebiie
   Oko  ke  e-he  tsoo  gbekebiie-e
   Oko  take  3SG-body  show  children-DEF
   Oko showed himself to the children.

bii) *Oko tsoo gbekebiie ehe
Oko  tɔɔ  gbekbiĩi-e  e-he  
Oko  show  children-DEF  3SG-body  
Oko showed himself to the children.

Comment 32: In C8a) the theme NP nikee ‘gift’ cannot be definite. This makes the sentence unacceptable. The definite theme NP can only occur in an SVC as in C7a).

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). For example, in German, the verb helfen meaning "to help" takes an object that is casemarked Dative even though the objects of hit and see would be casemarked Accusative. If your language does not have overt Case, then focus on the indirect objects of ditransitive verbs (e.g., in English, Alice in Dan gave Alice a book is the indirect object of a transitive verb) and prepositional objects, but be sure to consider these sorts of argument types whether your language has casemarking or not.

C9d)  Aku eŋma nibii ye e-he  
     Aku  eŋ-mala  nibii  ye  e-he  
     Aku  PERF-write  things  on  3SG-body  
     Aku has tattooed herself.

KS: Please try this with a plural subject and say whether or not the reciprocal reading is possible as it is elsewhere.

i)  Aku ke Oko eŋmalanŋmalai  nibii ye ame-he  
    Aku  ke  Oko  eŋ-mala-ŋ-mala-i  nibii  ye  ame-he  
    Aku and Oko  PERF-write-write-DISTRIBUT  things  on  3PL-body  
    Aku and Oko have tattooed themselves.

Comment 33: C9a) to c) are not rendered in Ga with obliques. The paucity of prepositions in Ga means there are very few obliques. The other Ga preposition - ke ‘with’ is used with instrumentals. It is however difficult to use the reflexive as an instrumental.

e)  *Aku tsi mi ke e-he  
    Aku  tsi  mi  ke  e-he  
    Aku pushed me with 3SG-body  
    Aku pushed me with herself.

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)  Aku na onufu ye esse  
     Aku  na  onufu  ye  eŋ-se  
     Aku  see  snake  at  3SG-back  
     Aku saw a snake behind her (Aku) . (Could also be “Aku saw a snake behind sb else”)

b)  Aku fo ye sanee he  
    Aku  fo  ye  sane-e  he  
    Aku cried because of the matter.

KS: What is he adding here?

I honestly don’t know. But it’s ungrammatical without it. It seems idiomatic to me. Here are some other examples:
ii)  Eejwɛn  gbekbiiɛ a-he
    ee-jwɛn  gbekbiiɛ-a-he
    3SGPROG-think  children-DEF  3PL-body
    S/he’s thinking about the children

iii)  Eejwɛn kaa-a he
     ee-jwɛn  kaa-a he
     3SGPROG-think  test-DEF  3PL-body
     S/he’s thinking about the test.

iv)  Amenple seie he
     ame-ŋple  seie-he
     3PL-PROG-fight  chair-DEF  body
     They are fighting for the chair.

v)  Aku ḋle  eniyenii  he
    Aku  ḋle  e-nyenii-he
    Aku  PROG-be.sparing  3SG-food-DEF  body
    Aku is being very sparing with her food.

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?

C11a)  Aku ke  Oko  tsɔɔ  e-he
        Aku  ke  Oko  tsɔɔ  e-he
        Aku  take  Oko  show  3SG-body
        Aku showed Oko to himself.

   aii)  *Aku  tsɔɔ  Oko  e-he
         Aku  tsɔɔ  Oko  e-he
         Aku  show  Oko  3SG-body
         Aku showed Oko to himself.

 b)  Oko  ke  e-he  tsɔɔ  gbekbiiɛ
     Oko  ke  e-he  tsɔɔ  gbekbiiɛ
     Oko  take  3SG-body  show  children-DEF
     Oko showed himself to the children.

   bii)  *Oko  tsɔɔ  gbekbiiɛ  e-he
        Oko  tsɔɔ  gbekbiiɛ-e-he
        Oko  show  children-DEF  3SG-body
        Oko showed himself to the children.

 ci)  Oko  ke  e-he  ha  Aku
      Oko  ke  e-he  ha  Aku
      Oko  take  3SG-body  give  Akua
      Oko gave himself to Aku

   ci)  *Oko  ha  Aku  e-he
        Oko  ha  Aku  e-he
        Oko  give  Aku  3SG-body
        Oko gave Aku himself.
d) *Oko ha ehe Aku
Oko ha e-he Aku
Oko give 3SG-body Aku
Oko gave Aku himself.

e) Does not involve a double complement

f) Aku ke gbekbiiit tsɔɔ-ɔɔ ame-he
Aku ke gbekbii-ɛ tɔɔ-ɔɔ ame-he
Aku take children-DEF show-show 3PL-body
Aku introduced the children to each other.

KS: Imagine a situation where someone leaves a basket full of kittens on his doorstep. He gives some of them away, but he gives the black puppy to himself. Presumably this would give a frame like C11ci, *Oko ke the black puppy ha e-he. Please give the appropriate sentence with judgment.

i)  
Oko ke gbee bi dine ha ehe
Oko ke gbee bi diŋ-ɛ ha e-he
Oko give 3SG-body dog child black-DEF give 3SG-body
Oko gave himself the black puppy.

ii)  
Oko ha ehe gbee bi dine
Oko ha e-he gbee bi diŋ-ɛ
Oko give 3SG-body dog child black-DEF
Oko gave himself the black puppy.

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.

Ga has no such construction.

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)  
Oko tswa emami
Oko tswa eŋ-mami
Oko call 3SG-mother
Oko called his mother

b)  
Oko shwa eyitwei
Oko shwa eŋ-yitswei
Oko comb 3SG-hair
Oko combed his hair.

c)  
Oko ke entsumo onukpa anke
Oko ke eŋ-nitsumo onukpa-a wie
Oko take 3SG-work elder-DEF talk
Oko spoke with his boss.

d)  
Oko ke ewoloe fɔ okpɔlo ɔnɔ
Oko ke eŋ-wolo-ɛ fɔ okpɔlo-ɔ ɔnɔ
Oko take 3SG-book-DEF put table-DEF top
Oko put his book on the table.
c) Manțsee ha Oko nìkke ye eklowaa mli
   manțsee-e ha Oko nìkke ye eklowaa-a mli
   king-DEF give Oko gift in 3SG-village-DEF inside
   The king gave Oko a gift in his village.

d) Gbekebiie fɔ Oko hie
   gbekebi-e fɔ Oko hie
   children-DEF wash Oko face
   The children washed Oko’s face.

C14a) Oko papa sumɔ le
   Oko, papa sumɔ-ɔ le
   Oko father like-3SGOBJ
   Oko’s father likes him.

KS: Is this possible with Strategy A or C?

No, not possible with either.

i) Oko papa sumɔ ehe
   [Oko, papa]-sumɔ-ɔ e-he
   Oko father like-3SG
   Oko’s father likes himself.

ii) Oko papa sumɔ ledientse ehe
   [Oko, papa]-sumɔ-ɔ le-dientse-e-he
   Oko father like-3SGONJ-INTENS 3SG
   Oko’s father likes himself.

b) Oko shihaa gbee le shi
   Oko shihaa-a gbee le shi
   Oko impatience-DEF fall 3SGOBJ ground
   Oko’s impatience brought him down.

KS: Is this possible with Strategy A or C?

Not possible with Strategy A but possible with Strategy C

i) *Oko shihaa gbee ehe shi
   Oko shihaa-DEF gbee e-he shi
   Oko impatience fall 3SG-body ground
   Oko’s impatience brought him down.

ii) Oko shihaa gbee ledientse shi
    Oko shihaa-a gbee le-dientse shi
    Oko impatience-DEF fall 3SGOBJ-INTENS ground
    Oko’s impatience brought him down.

c) Oko mami hɔɔ eblee
   [Oko, mami]-hɔɔ eblee-ɛ
   Oko mother sell 3SG-car-DEF
   Oko’s mother sold his car.

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

X20a) ḇekebhi hii na amedientse amehe mfoniri

children boys-DEF see 3PL-INTENS 3PL-body picture-PL

The boys saw pictures of themselves.

b) A similar construction does not exist for Ga. The Ga translation must involve a subordinate clause.

Aku gba ḇekebhi hii-e sane-ɛ ni koɔ amedientse amehe mfoniri-e

Aku narrate children males-DEF matter-DEF that concern-HAB 3PL-INTENS 3PL-body picture-PL

Aku told the boys the story that concerns the pictures of them.

c) Amlalofoi to yiŋ ake amebaaj amehe

amralo-fo-i-ɛ to yiŋ ake ame-baa-je-je-i ame-he

government-AG-PL-DEF arrange mind that 3PL-FUT-insult-insult-DISTR 3PL-body

The politicians planned to attack/insult each other.

KS: Does Ga have infinitives? No

d) Ga does not have a constructional equivalent for this. Best translation:

Amlalofoi kwa tamɔ no ni aaj ame shi ame nonce amejeɔ amehe

amralo-fo-i-ɛ kwa tamɔ no ni a-a-je ame shi ame nonce
government-AG-PL-DEF pretend like thing REL 3PLIMPER-PROG-insult 3PL but 3PL certainly
ame-je-ɔ ame-he

3PL-insult-HAB 3PL-body

The politicians pretended (made it seem like) they were being insulted but it was actually they who were attacking themselves.

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.

Causative non-reflexive

a) Aku ha Oko ye nii

Aku ha Oko ye nii
Aku make Oko eat thing
Aku made Oko eat.

b) Miha ḇekef fo

mi-ɔ ha ḇeke-ɛ fo
1SG-make child-DEF cry
I made the child cry.

Causative reflexive

a) *Aku ha ehe ye nii

Aku ha e-he ye nii
Aku make 2SG-body eat thing
Aku made herself eat.

d) *Miha mihe fo

mi-ɔ ha mi-he fo
1SG-make 1SG-body cry
I made myself cry.

**dii)**  
*Miha mihe fo*

1SG-make 1SG-body cry

KS: Are di) and dii) supposed to be different? No, sorry...typo.

Applicative (benefactive) non-reflexive

e)  
Aku he niyenii eha mi  
Aku he niyenii eha mi
Aku buy food 3SG-give me
Aku bought food for me.

Applicative (instrumental) non-reflexive

f)  
Aku fo blodo e kakla  
Aku fo blodo e kakla
Aku cut bread-DEF with knife
Aku cut the bread with a knife.

Applicative reflexive

g)  
Aku he niyenii eha ehe  
Aku he niyenii eha ehe
Aku buy food 3SG-give 3SG-body
Aku bought food for herself

h)  
*Aku tsi mi ke ehe*  
Aku tsi mi ke ehe
Aku push me with 3SG-body
Aku pushed me with herself. (Bad in English too?)

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) Not applicable, because Ga does not have passive voice.

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 sentence.

C16a)  
Mina mihe  
Mi-na mi-he
1SG-see 1SG-body
I saw myself.

b)  
Ona ohe  
o-na o-he
2SG-see 2SG-body
You saw yourself.

c)  
Wona wɔhe  
wɔ-na wɔ-he
1PL-see 1PL-body
We saw ourselves/We saw each other.
d) Amɛ na amɛhe
   ame-na ame-he
   3PL-see 3PL-body
   They saw themselves/They saw each other.

e) Nye na nyehe
   nye na nye-he
   2PL see 2PL-body
   You saw yourselves.

Repeat with the following sentences, or other suitable examples from section 4.1.1.

C17a) Mi ju-ɔ mihe
    mi-ju-ɔ mi-he
    1SG-wash-HAB 1SG-body
    I wash myself.

b) Minye ɛ mihe
    mi-nye-ɔ mi-he
    1SG-hate-HAB 1SG-body
    I hate myself.

ci) Migba Oko le dieŋŋe e he sane
    mi-gba Oko le-dieŋŋe e-he sane
    1SG-narrate Oko 3SGOBJ-INTENS 3SG-body matter
    I told Oko a matter about himself/I told Oko about himself.

cii) ?*Migba Oko e he sane
    mi-gba Oko3 e-he sane
    1SG-narrate Oko 3SG-body matter
    I told Oko a matter about himself/I told Oko about himself.

Comment 34: cii) is not good because of its ambiguity. Speakers will more often than not avoid this ambiguity by using a proper name as the possessor of he ‘body’ in place of the pronoun. If the possessor of he is coreferential with the subject then ci) is used with the appropriate pronominals.

KS: It is atypical to say a sentence is unacceptable because it is ambiguous. Suppose the speaker knows that his listener knows what happened, e.g. “After I learned that Oko was actually adopted, I was unsure if he should know, but now I have decided. I will tell Oko about himself.” Would ehe be ok then? Or is it still *?

No, it will still be * - ungrammatical.

di) Mina onufu ye mimasei
    mi-na onufu ye mi-masei
    1SG-see snake be.at 1SG-side
    I saw a snake near me.

dii) Mina onufu ye mihe
    mi-na onufu ye mi-he
    1SG-see snake be.at 1SG-body
    I saw a snake on my body/skin.

COMMENT: d) is more likely to be uttered if the snake is actually part of the person’s skin, e.g. as a tattoo.

e) Passive not possible
f) Mitswa mimami
   mi-tswa mi-mami
   1SG-call 1SG-mother
   I called my mother.

gi) Mipapa sum-ɔ misane
    mi-papa sum-ɔ mi-sane
    1SG-father like-HAB 1SG-matter
    My father likes me.

gii) *Mipapa sum-ɔ mihe sane
     mi-papa sum-ɔ mi-he sane
     1SG-father like-HAB 1SG-body matter
     My father likes me.

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) Onufu gbe ehe
     onufu-ɛ gbe e-he
     snake kill 3SG-body
     The snake killed itself.

b) Onufu gbe lediŋtse ehe
   onufu-ɛ gbe le-dieniŋtse e-he
   snake kill 3SGOBJ-INTENS 3SG-body
   The snake killed itself.

c) *Tsone ehe
   tsone-ɛ fite-ɛ e-he
   machine destroy-HAB 3SG-body
   The machine destroys itself.

d) *Tsone ehe lediŋtse ehe
   tsone-ɛ fite-ɛ le-dieniŋtse e-he
   machine destroy-HAB 3SGOBJ-INTENS 3SG-body
   The machine destroys itself.

Comment 35: It seems both Strategies A and C are restricted to animates. Since Strategy B can only be applied to one verb – an active verb – it also applies only to animates.

4.1.3.3 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.

Not applicable.

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) Yoo fɛ yoo na ehe
     yoo fɛ yoo na e-he
     woman all woman see 3SG-body
     Every woman saw herself.
b) Gbeke fo gbeke ju (ehe)
   gbeke fo gbeke ju (e-he)
   child all child wash (3SG-body)
   Every child washed (himself).

   c) Nikasel fo nikasel nyɛ ehe
      ni-kase-lɔ fo ni-kase-lɔ nyɛ-ɔ e-he
      thing-study-AG all thing-study-AG hate-HAB 3SG-body
   Every student hates himself.

   d) Gbeke fo gbeke na onufu ye emasei
      gbeke fo gbeke na onufu ye e-masei
      child all child see snake be.at 3SG-side
   Every child saw a snake near himself.

   e) Gbeke fo gbeke tswa emami
      gbeke fo gbeke tswa e-mami
      child all child telephone 3SG-mother
   Every child telephoned his mother.

   dii) Gbeke fo gbeke papa sumɔ ehe
       gbeke fo gbeke papa sumɔ-ɔ e-he
       child all child father like-HAB 3SG-body
   Every child's father likes himself.

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

C19a) Yoo ko kwraa enaaa ehe
    yoo ko kwraa e-naaa e-he
    woman INDEF at.all PERF-see.NEG body
   No woman saw herself.

b) Gbeke ko kwraa ejuuu ehe
   gbeke ko kwraa e-juuu e-he
   child INDEF at.all PERF-wash.NEG 3SG-body
   No child washed himself.

c) Nikasel ko kwraa enye ehe
   ni-kase-lɔ ko kwraa e-nyɛ-ɛ e-he
   thing-learn-AG INDEF at.all PERF-hate.NEG 3SG-body
   No student hates herself.

d) Gbeke ko kwraa enaaa onufu ye emasei
   gbeke ko kwraa e-naaa onufu ye e-masei
   child INDEF at.all PERF-see.NEG snake be.at 3SG-side
   No child saw a snake near himself.

e) Gbeke ko kwraa etswaaa emami
   gbeke ko kwraa e-tswaaa e-mami
   child INDEF at.all PERF-telephone.NEG 3SG-mother
   No child telephoned his mother.

f) Gbeke ko be ni epapa sumɔ e-he
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) Namɔ na e-he
   Namɔ na e-he
   who see 3SG-body
   Who saw himself?

b) Namɔ ju e-he
   Namɔ ju e-he
   who wash 3SG-body
   Who washed himself?

c) Namɔ na onufu ye emasi
   namɔ na onufu ye e-masi
   who see snake be.at 3SG-side
   Who saw a snake near himself?

d) Namɔ tswe (le-dienstse) emami
   namɔ tswe (le-dienstse) e-mami
   who telephone (3SGOBJ-INTENS) 3SG-mother
   Who telephoned his own mother?

e) Namɔ papa sumɔ-e he
   namɔ papa sumɔ-ɔ le
   who father like-HAB 3SGOBJ
   Whose father likes him?

4.1.3.6 Reverse binding - In the following examples, the full NP ('antecedent') appears in the lower (prototypically, object) position.

C21a) *Ehe na Oko
    e-he na Oko
    3SG-body see Oko
    Himself saw Oko.

b) *Wɔhe na wɔ
    wɔ-he na wɔ
    1PL-body see wɔ
    Ourselves saw Oko.

c) *Ehe na onufu ye Oko see
    e-he na onufu ye Oko see
    3SG-body see snake be.at Oko back
    Himself saw a snake behind Oko

e) *Ate kɛ e-he wie Oko sane
    Ate kɛ e-he wie Oko sane
Ate take 3SG-body talk Oko matter
Ate spoke to himself about Oko.

f) *Ate gba ehe Oko sane
Ate fi gba e-wa Oko, sane
Ate narrate 3SG-body Oko matter
Ate told himself about Oko.

g) Passive not possible

h) Passive not possible

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) Etswa Oko mami
c_e-j-tswa Oko, mami
3SG-telephone Oko mother
He (Oko) called Oko’s mother.

b) Emami ẹtao ni ewa Oko
c_e-j-mami ni e-wa Oko
3SG-mother PROG-want that 3SG-help Oko
His (Oko’s) mother wants to help Oko.

c) Emami gba Oko naa
c_e-j-mami gba Oko naa
3SG-mother break Oko mouth
His mother worried Oko.

d) Mary gba emami Oko he sane
Mary, gba e_e-j-mami Oko, he sane
Mary narrate 3SG-mother Oko body matter
Mary told his (Oko’s) mother about Oko.

e) *Emami mfoniri gbee Oko nọ
c_e-j-mami mfoniri gbee Oko, nọ
3SG-mother picture fall Oko top
The picture of his mother fell on Oko.

f) Emami mfoniri he Oko hic me
e_e-j-mami mfoniri-ẹ Oko hic me
3SG-mother picture-DEF make Oko face wait
The picture of his mother pleased Oko.

Please let us know 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.

This can be done by focus:

Oko ni emami sumọ
Oko ni e-mami sumọ-
Oko FOC 3SG-mother like-HAB
Its is Oko that 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) The women help X.

C23) Yeie waa amehe
yei-e wa-a ame-he
women-DEF help-HAB 3PL-body
The women help themselves.

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.

Comment 36: Sentence C23) can mean C24a, c), d) or e). It cannot mean C24 b). f) is also possible but I’m not sure.

C24a) Each woman helps all (or almost all) of the women, excluding herself.
b) Each woman helps all of the women, including herself.
c) Each woman helps at least some of the other women.
d) Each woman helps herself.
e) The women together as a group help the women together as a group.
f) Each woman helps one of the women other than herself, such that all of the women are helped by one of the others.

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

C25a) Does not involve a reflexive
b) Does not involve a reflexive
ci) Yeie sha amehe mfoniri
yei-e sha ame-he mfoniri
women-DEF photograph 3PL-body photo
The women photographed themselves/ The women photographed each other.

cii) Yeie sha amendidtshe amehe mfoniri
yei-e sha ame-didtshe ame-he mfoniri
women-DEF photograph 3PL-INTENS 3PL-body photo
The women photographed themselves/ The women photographed each other.

Comment 37: C25ci) and ii) above have the interpretation that each woman photographed herself. They could also mean each woman took a photograph of at least one other woman excluding from herself.

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?

Comment 38: Both Strategy A – the pronoun-he strategy and Strategy C – the object pronoun + INTENS + pronoun-he strategy allow the two readings of reflexive and reciprocal. A sentence which uses one of these strategies will be ambiguous only if the subject is plural. Until now I have maintained that Strategy C disambiguates between the reflexive and reciprocal and renders a sentence only reflexive. This seems not to be the case when the subject is viewed as one group made up of several individuals. In such cases one may use strategy C and still end up with a reciprocal reading. Use of strategy C when the subject is a group implies that the action was carried out by the members of the group on each rather rather than on the members of another group.

KS: Suppose the subject it is a conjunction like Oho and Aku, can Strategy C still be used for a reciprocal reading?

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.
Comment 39: The pronoun-he strategy can be used with all the verbs. Normally, and as I mentioned in the previous comment, whenever this strategy is used with a plural subject there is ambiguity between the reflexive and reciprocal reading. This is not the case, however with the verbs kpe ‘meet’ and nɔ ‘fight’. When this strategy is used with these verbs only the reciprocal reading
is obtained. This is due to the semantics of the verbs: meeting and fighting must necessarily involve two distinct participants. For this same reason the object pronoun + INTENS + pronoun-he strategy which usually imparts only reflexive meaning in the sentences it occurs in is rendered quite useless with these two verbs. That is to say when it occurs in sentences with either kpe ‘meet’ or nɔ ‘fight’, the sentence cannot have a reflexive meaning. Therefore sentences such as C26aii) and C26cii) are very odd but marginally acceptable in the right scenarios e.g. in the proxy type of scenarios where the entities denoted by the subject could have been meeting or fighting with actors that are playing them in a play. Even that is too much of a stretch for me, but others may find it acceptable.

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) *John na ehe kɛ Bill
John see 3SG-body with Bill
John and Bill saw each other.

Comment 40: This does not work with kpe ‘meet’ either.

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) Oko kɛ Aku je ame-he
Oko 3PL-body insult
Oko and Aku insulted each other/Oko and Aku insulted themselves.

b) Yeie je ame-he
yei-e 3PL-body
women-DEF give
The women insulted each other/The women insulted themselves.

Comment 41: No, there is no difference. Changing gender does not affect anything.

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

Ga has no indirect object relation. Most of what will be expressed by the indirect object relation is expressed in Ga through verb serialization.

C29a) Oko kɛ Aku ke ame-he wie
Oko 3PL-body speak
Oko and Aku spoke to each other.

b) Oko kɛ Aku ke ame-he kpe
Oko 3PL-body meet
Oko and Aku met.

c) Oko kɛ Aku ke wolo ha ame-he
Oko 3PL-body give
Oko and Aku gave the book to each other.

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"?

Yes.
30) Efẹ́ Bill ke Mary akę́ aме́ sumʊ̀ọ́ aмẹ́he
E-fe-ọ́ Bill kẹ́ Mary akẹ́ amẹ́-sumọ-ọ́ amẹ́-he
3SG-do-HAB Bill and Mary COMP 3PL-like-HAB 3PL-body
Bill and Mary think that they like each other i.e. Bill thinks he likes Mary and Mary thinks she likes Bill

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

C31a) Aduji fee shi shi kome
adu-ji-ẹ́ fee shi shi kome
monkey-PL-DEF all leave time one
The monkeys left together/The monkeys left at the same time.
b) Aduji fee ta shi amekpe loo
adu-ji-ẹ́ fee ta shi amekpe loo
monkey-PL-DEF all sit ground 3PL-chew fish
The monkeys all sat down to eat fish.

Comment: None of the reflexive/reciprocal strategies can be used to achieve the above meanings.

4.1.4.4 Antipassive readings

C32a) Nakai jataa kọọ mọ
nakai jata-a kọ-ọ́ mọ́
that lion-DEF bite-HAB person
That lion bites people.
b) Amralofoi woọ́ mi mọ́
amralo-fo-i-ẹ́ wo-ọ́ mi mọ́
government-AG-PL-DEF put-HAB people prison
The government arrests people.
c) Bill jeọ́ mi
Bill je-ọ́ mi
Bill insult-HAB people
Bill insults 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) Oko kee akẹ́ e-le nii
Oko kee akẹ́ e-le nii
Oko say that 3SG-know thing
Oko said that he is smart.
b) Oko le akẹ́ Ate sumọ́ọ́ le
Oko le akẹ́ Ate sumọ-ọ́ le
Oko know that Ate like-HAB 3SGOBJ
Oko knows that Ate likes him.
c) Oko le akẹ́ Aku kee ele nii
Oko le ake Aku le e-le nii
Oko know that Aku say 3SG-know thing
Oko knows that Aku says he is smart.

d) Oko jwɛ ake Aku le ake Ama sumɔ le
Oko jwɛ ake Aku le ake Ama sumɔ-ɔ le
Oko think that Aku know that Ama like-HAB 3SGOBJ
Oko thinks that Aku knows that Ama likes him.

e) Oko jwɛ ake Aku le ake e-sumɔ Ajele
Oko jwɛ ake Aku le ake e-sumɔ-ɔ Ajele
Oko think that Aku know that 3SG-like-HAB Ajele
Oko thinks that Aku knows that he likes Ajeley.

f) Naa kɛ Oko ake Aku sumɔ le
Naa kɛ Oko ake Aku sumɔ-ɔ le
Naa tell Oko that Aku like-HAB 3SGOBJ
Naa told Oko that Aku likes him.

g) Naa kɛ Oko ake esumɔ Ama
Naa kɛ Oko ake e-sumɔ-ɔ Ama
Naa tell Oko that 3SG-like-HAB Ama
Naa told Oko that he likes Ama.

If any of the above examples, or any analogous examples you provide, are grammatical using a particular coreference strategy, we consider this strategy to be a long-distance coreference strategy.

D2a) Jack kplɛ na ake Mary sumɔ le
Jack kplɛ na ake Mary sumɔ-ɔ le
Jack agree top COMP Mary like-HAB 3SGOBJ
Jack admitted that Mary likes him.

b) Jack na ake Mary sumɔ le
Jack na ake Mary sumɔ-ɔ le
Jack see COMP Mary like-HAB 3SGOBJ
Jack suspected that Mary likes him.

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

D3a) Jeff complained about Mary when Ella blamed X
b) Jeff returned home when/before/after X became tired.
c) When/before/after Mary wrote to X, Jeff returned home.
d) Jeff left without Mary seeing X.
e) Mary condemned Jeff without meeting X.

D3a) Oko ye nshεkε ye Aku he beni Naa shi leε
Oko ye nshεkε ye Aku he be ni Naa shi le-ε
Oko eat gossip be.at Aku body time REL Naa leave 3SGOBJ-DEF
Oko gossiped about Aku when Naa left him.

b) Oko ku esεe etεe shia dani ehe ye
Oko ku e-εe e-tee shia dani e-he ye
Oko break 3SG-back 3SG-go.PST home before 3SG-body eat
Oko returned home before he got sick.
Comment 42: The sentences in D3) will not work with reciprocals, just as they do not work with reflexives. Note that D3b) does not contain a reflexive. The expression for ‘get sick’ is *he ye* (lit: body eat). So *Aku he ye* means ‘Aku got sick’ (lit: Aku’s body ate). Change in person and/or number does not affect the pattern.

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).

X12a) I hope [to leave]
   I hope [for Bill to leave]
   I expect [Bill to be unpleasant]
   I persuaded Bill [to leave]
   b) I made [Bill leave]
   c) I saw [someone leaving]
   d) I require [that he speak softly]
   e) 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.

D4a)  
   Oko kɛɛ Ate ake eke ehie afɔ eŋɔ
   Oko kɛɛ Ate ake e-ke e-hiɛ a-fɔ e-ŋɔ
   Oko tell Ate COMP 3SG-take 3SG-face SJV-put 3SG-top
   Oko told Ate to trust him.

b)  
   Oko kɛɛ Ate ake eke woloe aha le
   Oko kɛɛ Ate ake e-ke woloe-e a-ha le
   Oko tell Ate COMP 3SG-take book-DEF SJV-give 3SGOBJ
   Oko told Ate to give the book to him.

c)  
   Oko kɛɛ Ate ake eke le awie
think we might be interested in. We will address these issues in follow up research.

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.

d) Oko kee Ate ak e-ke 3SG-take 3SGOBJ SJV-speak
Oko told Ate to talk to him.

dii) Oko kee Ate ak e-ke ehe sane
Oko3 kee Ate3 ak e 3SG-body e-he sane
Oko told Ate to talk about himself/Oko told Ate to talk about himself.

e) Nomlie Oko ye hienskam3 ak e Ate ke ehe sane
Oko1 ye hienskam3 ak e Ate3 ke e-he sane
then-DEF Oko have hope Ate take 3SG-body 3SG-top
Oko was hopeful that Ate would trust him/Oko expected Ate to trust him.

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.

D5 Not applicable to Ga

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

D7a) b) Oko ye hienskam3 ak e Ate baa yi enyem3
Oko1 ye hienskam3 ak e Ate3 baa-3SG-body enyem3
Oko have hope Ate FUT-beat 3SG-brother-DEF
Oko hopes that Ate will beat his brother/Oko expects Ate to beat his brother.

c) Oko ye hienskam3 ak e enyem3 baa yi ke
Oko1 ye hienskam3 ak e enyem3 baa-3SG-body ke
Oko have hope 3SG-brother-DEF FUT-beat 3SGOBJ
Oko expects his brother to beat him.

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.)

D5) Not applicable to Ga

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

D8) Not applicable to Ga

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.

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.
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 coconstrued with Oliver. Your language may not have a verb like *implicate*, but if so, try a verb that seems close, if possible. If your language does not permit clauses to be subjects without head nouns, then try something like “the fact that X was late upset Oliver.” *English permits the independent pronouns strategy to be used for such cases, but not all speakers like every example.*

D9a)  Sɛɛ ni ekpe ha Oko mli fu
     see-e ni e,ŋ-kpe-e ha Oko_i mli fu
     back-DEF REL 3SG-meet-DEF make Oko inside swell
     The fact that he was late upset Oko.

b), c)  Sɛɛ ni ekpe ha ajwɛŋ ake Oko eye fɔ
       see-e ni e,ŋ-kpe-e ha a-jwɛŋ ake Oko_i e-ye fɔ
       back-DEF REL 3SG-meet-DEF make 3PLIMP-think COMP Oko PERF-eat guilt
       The fact that he was late made people think Oko was guilty.

Comment 43: The Ga expression for ‘to be late’ is *kpe sɛɛ* (lit: meet back). When nominalised it becomes *sɛɛ kpee* ‘lateness’ (lit: back meeting). D9a), c) are unacceptable to me if the pronominal subject of *kpe sɛɛ* and Oko are coreferential. It will be unacceptable if the proper name preceded the pronominal.

The Ga expression for ‘to be late’ is *kpe sɛɛ* (lit: meet back). When nominalised it becomes *sɛɛ kpee* ‘lateness’ (lit: back meeting).

D9a) That X was late upset Oliver.
   b) That X was late suggested that Oliver was guilty.
   c) That X was late made Oliver look guilty.
   d) That X was late implicated Oliver.

Section 4.3 Principle C-type effects
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)  Eje Malik
     e,ŋ-jɛ Malik_i
     3SG-insult Malik
     He insulted Malik.

b)  Ekɛ Mariam je Malik
    e,ŋ-kɛ Mariam je Malik_i
    3SG-say Mariam insult Malik
    He said Mariam insulted Malik.

c)  Eje gbekenuue
    e,ŋ-jɛ gbekenuue-ɛ_i
    3SG-insult boy-DEF
    He insulted the boy.

d)  Ekɛ Mariam je gbekenuue
    e,ŋ-kɛ Mariam je gbekenuue-ɛ_i
    3SG-say Mariam insult boy-DEF
    He said Mariam insulted the boy.

Comment 43: In none of these sentences E1a)-d) can the pronominal be interpreted as coreferential with Malik or *gbekenuue* ‘the boy’.
E2a) Emami je Malik
   *i/mami je Malik,
3SG-mother insult Malik
His mother insulted Malik.

b) Emami ke Mariam je Malik
   *i/mariam say Malik
3SG-mother insult Malik
His mother said Mariam insulted Malik.

Comment 44: For all E2 and E3 it is not possible that the pronominal is coreferential with either Malik or

E3a) His mother criticized the boy.
   c) His mother said Mariam criticized the boy.
   d) His mother said Mariam criticized Malik.

E3b) The man who he liked criticized Malik
   b) The man who he liked criticized the boy.
   c) The man who liked him criticized the boy.

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).

E4, E5, E6. This is not possible

E4a) Malik criticized Malik.
   b) Malik said Mariam criticized Malik.
   c) The boy criticized the boy.
   d) The boy said Mariam criticized the boy.

E5a) Malik’s mother criticized Malik.
   b) Malik’s mother said Mariam criticized Malik.
   c) The boy’s mother criticized the boy.
   d) The boy’s mother said Mariam criticized the boy.

E6a) The man who Malik liked criticized Malik
   b) The man who the boy liked criticized the boy.
   c) The man who liked him criticized the boy.

E7, E8, E9. This is not possible

Now consider whether the boy = Malik for the following examples

E7a) The boy criticized Malik.
   b) The boy said Mariam criticized Malik.
   c) Malik criticized the boy.
   d) Malik said Mariam criticized the boy.

E8a) The boy’s mother criticized Malik.
   b) The boy’s mother said Mariam criticized Malik.
   c) Malik’s mother criticized the boy.
   d) Malik’s mother said Mariam criticized the boy.

E9a) The man who the boy liked criticized Malik
   b) The man who Malik liked criticized the boy.
   c) The man who liked him criticized the boy.
   d) The man who liked the boy criticized Malik

E7, E8, E9. These are not possible

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
(eespecially; 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.

Comment 45: Ga is very much like English in this respect.

D11a) Larry kẹ Zeke ake Mike sumọọ le
   Larry_t kẹ Zeke_k ake Mike_k sumọọ le_{i,j}*k
   Larry tell Zeke COMP Mike like-HAB 3SGOBJ
   Larry told Zeke that Mike liked him.

b) Zeke kẹ Larry ake Mike sumọọ le
   Zeke_t kẹ Larry_j ake Mike_k sumọọ le_{i,j}*k
   Zeke tell Larry COMP Mike like.NEG 3SGOBJ
   Zeke told Larry that Mike didn’t like him.

c) Zeke kẹ Larry ake esumọ Mike
   Zeke_t kẹ Larry_j ake e_{i,j}*-sumọ Mike_k
   Zeke tell Larry COMP 3SG-like.NEG Mike
   Zeke told Larry that he didn’t like Mike.

d) Larry kẹ Zeke ake esumọ Mike.
   Larry_t kẹ Zeke_j ake e_{i,j}*-sumọ Mike_k
   Larry tell Zeke COMP 3SG-like.NEG Mike
   Larry told Zeke that he didn’t like Mike.

e) Larry le ake Zeke jwenọ ake Mike sumọọ le
   Larry_t le ake Zeke_j jwenọ ake Mike_k sumọọ le_{i,j}*k
   Larry know COMP Zeke think-HAB COMP Mike like.NEG 3SGOBJ
   Larry knows that Zke thinks that Mike doesn’t like him.

f) Zeke le ake Larry jwenọ ake Mike sumọọ le
   Zeke_t le ake Larry_j jwenọ ake Mike_k sumọọ le_{i,j}*k
   Zeke know COMP Larry think-HAB COMP Mike like.NEG 3SGOBJ
   Zeke knows that Larry thinks that Mike doesn’t like him.

D12a) Zeke mami jwenọ ake Mike sumọọ le
   [Zeke_k mami], jwenọ ake Mike_k sumọọ le_{i,j}*k
   Zeke mother think-HAB COMP Mike like.NEG 3SGOBJ
   Zeke’s mother thinks that Mike doesn’t like her.

b) Zeke mami jwenọ ake esumọ Mike
   [Zeke_k mami], jwenọ ake e_{i,j}*sumọ Mike_k
   Zeke mother think-HAB COMP 3SG-like.NEG Mike
   Zeke’s mother thinks that she does not like Mike/Zeke’s mother thinks that he does not like Mike.
c) Zeke jwɛn ake Mike sumɔɔ le
Zeke_{i} jwen-ɔ akɛ Mike_{j} sumɔɔ le_{i,j}
Zeke think-HAB COMP Mike like.NEG 3SGOBJ
Zeke thinks that Mike doesn’t like him.

d) Zeke wolɔ ni ɛŋmaa kɛ akɛ Mike sumɔɔ le
Zeke_{i} wolɔ-ɛ ni e-ŋma-ɛ akɛ Mike_{j} sumɔɔ le_{i,j}
Zeke letter-DEF REL 3SG-write-DEF tell COMP Mike like.NEG 3SGOBJ
Zeke’s letter that he wrote said that Mike did not like him.

e) Zeke nu ake Mary sumɔɔ le
Zeke_{i} nu ake Mary_{j} sumɔɔ le_{i,j}
Zeke hear COMP Mary like.NEG 3SGOBJ
Zeke heard that Mary didn’t like him.

f) Not applicable

D13a) Zeke kɛ nomli esaa ehe
Zeke_{i} kɛ nomli-ɛ e_{i}-esaa e_{i}-he
Zeke say then-DEF 3SGPERF-dress 3SG-body
Zeke said he had dressed himself.

b) Zeke kɛ nomli epila ehe
Zeke_{i} kɛ nomli-ɛ e_{i}-pila e_{i}-he
Zeke say then-DEF 3SGPERF-wound 3SG-body
Zeke said he had wounded himself.

c) Zeke kɛ ekadi ehe wolo
Zeke_{i} kɛ nomli-ɛ e_{i}-kadi e_{i}-he wolo
Zeke say then-DEF 3SGPERF-mark 3SG-body paper
Zeke said he had tattooed himself.

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).

4.4.2 Antecedent properties

4.4.2.1 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.

First Person

D11a) Larry kɛ mi ake Mike sumɔɔ mi
Larry kɛ mi akɛ Mike sumɔɔ mi
Larry tell me COMP Mike like-HAB me
Larry told me that Mike liked me.
b) Mikee Larry ake Mike sumoo le
   mi-ke Larry ake Mike sumoo mi
   1SG-tell Larry COMP Mike like.NEG me
I told Larry that Mike liked me.

D12a) Mimami jwen ake Mike sumoo mi
   mi-mami jwen-ɔ ake Mike sumoo mi
   1SG-mother think-HAB COMP Mike like.NEG me
My mother thinks that Mike does not like me.

b) Mimami jwen ake misumoo Mike
   mi-mami jwen-ɔ ake mi-sumoo mi
   1SG-mother think-HAB COMP 1SG-like.NEG Mike
My mother thinks that I do not like Mike.

c) Mijwen ɔ ake Mike sumoo mi
   mi-jwen-ɔ ake Mike sumoo mi
   1SG-think-HAB COMP Mike like.NEG me
I think that Mike doesn’t like me.

d) Miwole ni miqma tsɔ ake Mike sumoo mi
   mi-wo-ɛ ni miqma-tsɔ ake Mike sumoo mi
   1S-letter-DEF REL 1SG-write-DEF show COMP Mike like.NEG me
My letter that I wrote said that Mike did not like me.

e) Minu ake Mary sumoo mi
   mi-nu ake Mary sumoo mi
I heard that Mary didn’t like me.

f) Not applicable

D13a) Mi-kɛ nɔmlɛ mɪsaa mɪhe
    mi-kɛ nɔmli-ɛ mɪ-saa mɪ-he
    1SG-say then-DEF3SGPERF-dress 1SG-body
    I said I had dressed myself.

b) Mi-kɛ nɔmlɛ mɪpila mɪhe
    mi-kɛ nɔmli-ɛ mɪ-pila mɪ-he
    1S-say then-DEF1SGPERF-wound 1SG-body
    I said I had wounded myself.

c) Mi-kɛ mɪkadi mɪhe wolo
    Mi-kɛ nɔmli-ɛ mɪ-kadi mɪ-he wolo
    1SG-say then-DEF1SGPERF-mark 1SG-body paper
    I said I had tattooed myself.

Second Person

D11a) Larry kɛ bo ake Mike sʊmʊʊ bo
        Larry kɛ bo ake Mike sʊmʊʊ bo
        Larry tell you COMP Mike like-HAB you
        Larry told you that Mike liked you.

b) Okɛ Larry ake Mike sʊmʊʊ bo
    o-kɛ Larry ake Mike sʊmʊʊ bo
    2SG-tell Larry COMP Mike like.NEG you
    You told Larry that Mike did not like you.

c) Okɛ Larry ake o-sʊmʊʊ Mike
    o-kɛ Larry ake o-sʊmʊʊ Mike
    2SG-tell Larry COMP 2SG-like.NEG Mike
    You told Larry that you didn’t like Mike.

d) Larry kɛ bo ake o-sʊmʊʊ Mike.
    Larry kɛ bo ake o-sʊmʊʊ Mike
    Larry tell you COMP 2SG-like.NEG Mike
    Larry told you that you didn’t like Mike.

e) Larry le ake o-jwɛŋ ake Mike sʊmʊʊ bo
    Larry le ake o-jwɛŋ ake Mike sʊmʊʊ bo
    Larry know COMP 2SG-think-HAB COMP Mike like.NEG you
    Larry knows that you think that Mike doesn’t like you.
f) Ole ak Larry jwenọ ake Mike sumọọ bo
   o-le ake Larry jwenọ ake Mike sumọọ bo
   2SG-know COMP Larry think-HAB COMP Mike like.NEG you
You know that Larry thinks that Mike doesn’t like you.

D12a) Omami jwenọ ake Mike sumọọ bo
   o-mami jwenọ ake Mike sumọọ bo
   2SG-mother think-HAB COMP Mike like.NEG you
Your mother thinks that Mike does not like you.

b) Omami jwenọ ake osumọọ Mike
   o-mami jwenọ ake o-sumọọ Mike
   2SG-mother think-HAB COMP 2SG-like.NEG Mike
Your mother thinks that you do not like Mike.

c) Ojwenọ ake Mike sumọọ bo
   o-jwenọ ake Mike sumọọ bo
   2SG-think-HAB COMP Mike like.NEG you
I think that Mike doesn’t like me.

d) Owolọe ni oṣọọ tsọ ake Mike sumọọ bo
   o-wolo-ẹ ni o-ọọma-ọ tsọ ake Mike sumọọ bo
   2SG-letter-DEF REL 2SG-write-DEF show COMP Mike like.NEG you
Your letter that you wrote said that Mike did not like you.

e) Onu ake Mary sumọọ bo
   o-nu ake Mary sumọọ bo
   2SG-hear COMP Mary like.NEG you
You heard that Mary didn’t like you.

f) Not applicable

D13a) Oke omlọ osaa ohe
   o-ke omlọ-ẹ o-sa o-he
   2SG-say then-DEF 2SGPERF-dress 2SG-body
You said you had dressed yourself.

b) Oke omlọ opila ohe
   o-ke omlọ-ẹ o-pila o-he
   2SG-say then-DEF 2SGPERF-wound 2SG-body
You said you had wounded yourself.

c) Oke okadi ohe wolo
   o-ke omlọ-ẹ o-kadi o-he wolo
   2SG-say then-DEF 2SGPERF-mark 2SG-body paper
You said you had tattooed yourself.
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".

Comment: There are no differences.

Every child
a) Gbek ɛf gbeke ɛk ɛle nii
gbeke ɛf  gbeke ɛk e-le  nii
child  all  child  say  3SG-know  thing
Every child says he is smart.

b) Gbek ɛf gbeke ɛk Ate ake le awie
Gbek ɛf  gbeke ɛk Ate ake  e-ke le  a-wie
child  all  child  tell  Ate  COMP  3SGSVJ-take  3SGOBJ  SJV-speak
Every child told Ate to talk to him.

c) Gbek ɛf gbeke ɛk nomli opila ohe
gbeke ɛf  gbeke ɛk nomli-e  e-pila  e-he
child  all  child  say then-DEF  3SGPERF-wound  3SG-body
Every child said he had wounded himself.

No child
a) Gbek ko kwraa ekɛɛ e le nii
gbek ko kwraa e-keɛɛ e-le nii
child  at.all  3SG-say.NEG  3SG-know  thing
No child says he is smart.

b) Gbek ko kwraa ekɛɛ Ate ake e le awie
Gbek ko kwraa e-keɛɛ Ate ake e-ke le a-wie
child  at.all  3SG-tell.NEG  Ate  COMP  3SG-take  3SGOBJ  SJV-speak
No child told Ate to talk to him.

c) Gbek ko kwraa ekɛɛ nomli epiela ehe
gbek ko kwraa e-keɛɛ akɛ nomli-e e-pila e-he
child  at.all  3SG-say.NEG  COMP then-DEF3SGPERF-wound  3SG-body
No child said that he had injured himself.

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

Comment 46: Ga only has null pronouns for inanimate objects. The reflexive
KS: Something missing here?

Sorry, I can’t remember what I was going to say.

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) *Ozzie wie Harriet he etsɔɔ ame. (Where ame = Ozzie and Harriet)
Ozzie wie Harriet he e-tɔɔɔ ame
Ozzie talk Harriet body 3SG-show them
Ozzie talked about Harriet to them.

b) ?Ozzie wie amehe etsɔɔ Harriet. (Where ame = Ozzie and Harriet)
Ozzie wie ame-he e-tɔɔɔ Harriet
Ozzie talk 3PL-body 3SG-show Harriet
Ozzie talked about them to Harriet.
bii) *Oizzie wie amedientse amehe etsọ Harriet. (Where ame = Oizzie and Harriet. This is slightly better than bi) though)

Oizzie wie ame-dientos ame-he e-tsọ Harriet
Oizzie talk 3PL-INTENS 3PL-body 3SG-show Harriet
Oizzie talked about them to Harriet.

c) Oizzie kẹ Harriet ake ameshi. (Where ame = Oizzie and Harriet)

Oizzie kẹ Harriet ake ame-shi
Oizzie tell Harriet COMP 3PL-SJV-leave
Oizzie told Harriet that they should leave.

d) Oizzie kẹ Harriet ake Bill sumọ ame. (Where ame = Oizzie and Harriet)

Oizzie kẹ Harriet ake Bill sumọ ame
Oizzie tell Harriet COMP Bill like.NEG them
Oizzie told Harriet that Bill dislikes them.

e) Oizzie kẹ Harriet jweŋ ake Bill sumọ ame. (Where ame = Oizzie and Harriet)

Oizzie kẹ Harriet jwen-ọ ake Bill sumọ ame
Oizzie say Harriet think-HAB COMP Bill like.NEG ame
Oizzie said that Harriet thinks that Bill doesn’t like them.

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. 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). Suppose that in the following scenarios we are being told what was going on in Mark’s mind.

D15) Nomli Mark ọshe gbeysi ake nko baafee ebị le. Efere le hieshishiwemo ake enye e kura ewekunyo kome ne ni esumọ fe fe. Te enye mimie baana le te?  

Nomli-ɛ Mark ọshe gbeysi ake nko baa-fe ɛ-bi-le-ɛ.  
then-DEF Mark PROG-fear COMP something FUT-do 3SG-son-DEF-DEF

E-fe ɛ baa hieshishiwemo ake e-nye e-kura e-weku-nyo  
3SG do 3SGOBJ shame COMP 3SG-can.NEG 3SG-protect 3SG-family-person

kome ne ni e-sumọ-ọ fe fe. Te e-nyemi-mei baa-na  
one this REL 3SG-love-HAB pass all how 3SG-sibling-PL FUT-see

le te 3SG how

Mark feared that something bad will happen to his son. He was ashamed that he could not protect this one relative of his that he loved the most. What would his siblings think of him?

D16) Mark dana baa gbo beni ena efonire ye adafitswa wolo mli. Esedamọbi baa baakpoo le. Te e baafee te egba emani sane ne?  

Mark daa-ŋ baa gbo beni e-na e-foniri-ẹ ye adafitswa wolo-ẹ  
Mark mouth-inside all die when 3SG-see 3SG-picture-DEF be.at news paper-DEF

mli. E-sedamọbi-fẹ baa-kpoo le. Te e-baa-fe ẹ te
Mark was shocked when he saw his picture in the newspaper. All of his supporters would abandon him. How would he tell his mother this story?

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.


Morris say then-DEF that day DEF-DEF 3SG-good.NEG 3SG-give.NEG Mark kwraa. Klɛnkleŋe Morris kɛ le ake a-ju e-tsone. Ni agbene hu at.all first-DEF Morris tell 3SGOBJ COMP 3PLIMPERS-steal 3SG-car and in.addition also e-sa ni e-wo tagzi ke-ya nitsumo. Nomli-ɛ Morris jwɛ ake e-mli

3SG-fit COMP 3SG-carry taxi take-go work then-DEF Morris think COMP 3SG-inside baa-fu

FUT-swell

Morris said that that day was not good at all for Mark. First, Morris told him that his car had been stolen. Then he had to take a taxi 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: Kwemɔ, naa Mark!
B: Ehe ye feo e
A: Mibasumɔ ni mke le ahi shi moŋ. Yeie feŋ nyie esee
B: Agbene hu ejie ehe yi tsɔ

A: Kwemɔ, naa Mark
look, here Mark
Look, there’s Mark!

B: E-he ye feo e
3SG-body have beauty DM
He’s so handsome.

A: Mi-ba-sumɔŋ ni mi-kɛ le a- hi shi moŋ. Yeie feŋ 1SG-come-like-NEG COMP 1SG-take 3SGOBJ SJV-live ground though. women-DEF all nyie e-see
I wouldn’t want to be married to him though. All the women are chasing him.

Also, he praises himself too much.

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. 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.

D19b) 

Larry jwẹ ake mibọ le
Larry jwẹ ake mi-bọ le
Larry think-HAB COMP 1SG-respect 3SGOBJ
Larry thinks that I respect him.

e) 

Hīi jwẹ ake gbekbii hii bu-a ame
hii-am Def jwẹ ake gbekbii hii bu-a ame;
men-DEF think-HAB COMP child-PL male respect-HAB them
The men think that the boys respect them.

Comment 47: The only strategy possible in D19b) is the independent pronoun strategy.

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

Comment 48: For D20b as well the only possible strategy is the independent pronoun strategy.

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) 

Walter jwẹ ake Bill kẹ Harry ake Dave bu-ọ le
Walter jwẹ ake Bill kẹ Harry ake Dave bu-ọ le
Walter think-HAB COMP Bill tell Harry COMP Dave respect-HAB 3SGOBJ
Walter thinks that Bill told Harry that Dave respects him.

b) 

Walter jwẹ ake Bill kẹ mi ake Dave bu-ọ le
Walter jwẹ ake Bill kẹ mi ake Dave bu-ọ le
Walter think-HAB COMP Bill tell me COMP Dave respect-HAB 3SGOBJ
Walter thinks that Bill told Harry that Dave respects him.

c) 

Walter kẹ mi ake Dave bu-ọ le
Walter kẹ mi ake Dave bu-ọ le
Walter tell me COMP Dave respect-HAB 3SGOBJ
Walter thinks that Bill told Harry that Dave respects him.

d) 

Walter kẹ Dave ha mi wọlo ko ni kọ ehe
Walter kẹ Dave ha mi wọlo ko ni kọ ehe
Walter say Dave give me book INDEF REL concern 3SG-body
Walter said that Dave gave me a book about him.
4.4.4 Islands

Do syntactic islands affect the acceptability of the current strategy? For all the examples in this section, Ira = X. As in 4.3, if the independent pronoun strategy is all that works, please say so, translate, and move on, but if more than one strategy works, please let us know which ones do. Also, if your language permits more than one type of pronoun, be sure to test both kinds (including null arguments interpreted pronominally).

D22a) Ewo Ira mli la akɛ Mary nye-ɬ le
ɛ-wɔ-ɬ Ira mli la ake Mary nye-ɬ le
3SG-put-HAB Ira inside fire COMP Mary hate-HAB 3SGOBJ
It irritates Ira that Mary hates her.

b) Ira bu nüu ni sumɔ leɛ
Ira respect-HAB man-DEF REL like-HAB 3SGOBJ-DEF
Ira respects the man who likes her.

c) Ira kɛ nüu ni sumɔ leɛ le nii
Ira say man-DEF REL like-HAB 3SGOBJ-DEF know thing
Ira said that the man who likes her is intelligent.

d) Ira bi keji Bill na le lo
Ira ask if Bill see 3SGOBJ QP
Ira asked whether Bill saw her.

e) Ira bi bei ni Bill na mi
Ira ask time REL Bill see 3SGOBJ
Ira asked when Bill saw her.

f) Nomli Ira le ake George nyi ɛ ese
nomli-ɛ Ira le ake George nyi ɛ-see
then-DEFIra know.NEG COMP George PROG-walk 3SG-back
Ira did not know that George was following her.

g) Ira kɛ Mary he ye feo ni eke le baa-hi shi
Ira, ke Mary he ye feo ni e-ke le, baa-hi shi
Ira say Mary body have beauty and 3SG-take 3SGOBJ FUT-live ground
Ira said that Mary was pretty and that she would marry X.

4.4.5 De se reading

Sometimes an interpretation of identity with an antecedent is tinged by a different meaning distinction. 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) Oedipus thinks/says his mother is nice.
b) *Oedipus* thinks/says *his* mother is mean.

Now *his* in both examples is to be coconstrued with Oedipus, but *his mother* in (23a) refers to Bio, whom he does not know is his mother, while (D23b) refers to Step, who is the only one Oedipus thinks is his mother (though others know otherwise), and Oedipus is angry at her just now. In some languages, a different morphological form, a different pronoun for example, is used to distinguish the two readings. 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 49: Ga has no such distinction.*