## Abbreviations

1
2
3
acc benenef
Comp(comp)
conj
det
F
Imperf
M
malf
not(neg)
obj
Pass
Perf
pl(plu)
question
Ref
Sg(sg)
subj
$1^{\text {st }}$ person
$2^{\text {nd }}$ person
$3^{\text {rd }}$ person
accusative
benefactive
complemen5
conjunction
determiner(definite marker)
Feminine
imperfective form
Masculine
malfactive
negative morpheme(it is a discontinuousmorpheme
object
Passive
perfective form
plural
question word
reflexive marker
singular
subject

## IPA symbols used

| $t \int$ | voceless palatoalveolar affricate | as in church |
| :--- | :--- | :--- |
| ds | voiced palatoalveolar affricate | as in judge |
| $\int$ | voiceless palatoalveolar fricative | as in shine <br> n |
| platal nasal | as in pinch (in the phonetic transcription of the |  |
| word) |  |  |
| $j$ | voice palatal approximant | as in yes |
| $\mathrm{p}^{\prime}$ | voiceless bilabial ejective |  |
| $\mathrm{t}^{\prime}$ | voiceless alveolar ejective |  |
| $\mathrm{t}^{\prime}$ | voiceless palatoalveolar ejective |  |
| $\mathrm{k}^{\prime}$ | voiceless velar ejective |  |
| s $^{\prime}$ | voceless alveolar fricative ejective |  |

$\dot{\dagger} \quad$ high centasl unrounded
ə mid central unrounded
a low central unrounded

Version 2.1: June 1, 2005

# Anaphora in the African Languages - Questionnaire <br> NSF grants: BCS-0303447, BCS-0523102 

## 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: Amharic
2. Ethnologue code (if you know it): [amh]

## 3. Dialect and/or area: Addis Ababa

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 ( YES )
(b) Judgements 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: Derib Ado Jekale

2a. Your address: Addis Ababa, Ethiopia
2b. E-mail address, if you have one : bergbbi@yahoo.com
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.)
(YES ) I am willing to be identified
( ) I wish to remain anonymous
4. Your level of training in linguistics (circle accordingly).
( ) Post Ph. D.
( YES ) Ph.D or M.A. student MA, completed
( ) 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.

Scale: little or none / some / intimately familiar.
(a) Syntax: Intimately familiar
(b) Typological linguistics: Some
(c) Formal semantics: Some
(d) Pragmatics or discourse analysis: some
(e) Other relevant subfield:
6. Your language biography
a. What language(s) did your parents speak at home? Amharic
b. What language(s) do/did your parents speak natively? Amharic
c. What language (languages) did you receive school instruction in? Amharic and English
d. How old were you when you learned the subject language? Since childhood
e. Do you speak an identifiable subdialect of this language? What is it called? I better say I speak the standard Amharic, that is spoken in Addis Ababa.
f. Do you speak other dialects of the same language? Which ones? The Amharic of Yifat or

Menz. (Note that the areas Yifat and Menz are two neighbouring districts found north of Addis.)

## PART 2 An inventory of reflexive and reciprocal 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.

| dzon | ras-u-n | $a j-t-0$ | nabar |
| :--- | :--- | :--- | :--- |
| John | self-3sg-ace | saw-Ref-3Msg | be past |

John saw himself.'
Comment: It is also possible to say
dzon ras-u-n aj-t-o-all
John self -3Msg-Acc saw-Ref-3Msg -be(past)
'John saw himself.'

The name of the strategy is the ras-person strategy.
2.1.2 Is there another way, or are there other ways, to express coreference in A1 (that is, with the verb see held constant)?
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.

```
a1. d\xion ras-u-n j-at'b-all
    John self-3sg-acc 3Msg-wash imprf-be
    'John washes himself.'
a2. dson ras-u-n j-it-at't'zb-all
    John head-3sg-acc 1Msg-pass-wash imprf-be
        'John washes his head(hair)'
a3. dzon ras-u j-it-at't'\partialb-all
    John self-3Msg 1Msg-REF-wash imprr-be
        'John washes himself' or (John, himself, will wash (himself).'
```

Comment on a3: Page: 3

This has both reflexive and emphatic reading.

```
a4. dzon ras-u-nbə-ras-u j-at'b-all
    John self-3sg-acc by-head-3sg
                                    1 Msg -wash \(\mathrm{imprf}^{-}\)be
    John washes himself by himself
```

b) Mary cut herself. [accidentally]

| meri ras- u-a-n | k'orətt'-a | nəbər |
| :--- | :--- | :--- |
| Mary self-3sg-3Fsg-acc | cut $_{\text {perf }}-3 F s g$ | be $_{\text {past }}$ |
| 'Mary cut herself.' |  |  |


| meri | ras- u-a-n | bə-ras- u-a | k'orətt'-a | nəbər |
| :--- | :--- | :---: | :---: | :---: |
| Mary | self -3 sg-3Fsg-acc | by-self $-3 s g-3 F s g-a c c ~ c u t ~$ |  |  |
| 'Mary cerf $-3 F s g$ |  | be $_{\text {past }}$ |  |  |

c) John is ashamed of himself.
dzon bə-ras-u j-afr-al
John of- self -3sg 3 Msg-ashame peref -be
'John is ashamed of himself.'

Comment: It is not common (usual) to use the ras-by- ras strategy for this verb.
d) John destroyed himself.
dzon ras-u-n at'f-t-o-al
John self-3Msg-acc destroy(perf)- Ref-3Msg-be(past)
'John destroyed himself.' Also 'John was to commit suicide."
$\begin{array}{llcll}\text { dzon } & \text { ras-u-n } & \text { bə-ras-u } & \text { at'f } & \text {-t-o-al } \\ \text { John } & \text { self-3sg-acc } & \text { by-self-3sg } & & \text { destroy(perf)-Ref-1Msg-past }\end{array}$
'John destroyed himself by himself' (literal)
e) We hate ourselves.

| †̀nna | ras- atftf-in -n | in -t'ola-all -ən |
| :--- | :--- | :--- |
| we | self-pl-1-acc | lpl-hate(perf)-be-1pl |

'We hate ourselves.'

| inna | ras-atftfin-n | bə-ras- atftfin -n | in-t'əla-all -ən |
| :--- | :--- | :--- | :--- |
| we | head-1pl-acc | by-head-1pl-acc | 1pl-hate(perf)-be-1pl |

'We hate ourselves by ourselves.'(literal)
In all the examples, the second strategy used is the ras-by-ras strategy in addition to the ras-person strategy.
2.1.4 Obliques and other argument types - In the preceding examples, the coindexed arguments were subject and object. Many languages use a different coreference strategy for oblique arguments. Does yours? Consider a variety of oblique objects (dative, genitive, etc., as appropriate for your language), as well subcategorized prepositional arguments (e.g., English Karl counted on himself) and finally prepositional adjuncts (e.g., Sally saw a snake near
her/herself).
A3 a) John spoke to Mary.
Comment: This does not have any reflexive reading in Amharic.
b) John spoke about himself. (subject/PP argument)

It uses the same strategy. Look at the translation.
dzon silə ras-u tə-naggər-ə
John about head-3sg REF- speak(perf) -3sg
c) John told Mary about himself. (same, with intervening NP) No reflexive reading.
d) Bill told us about ourselves. (object/argument) No reflexive reading.
e) Mary gave the children themselves. (ind.object/object) No reflexive reading.
f) Mary saw a book behind her. (subject/locative)

Comment: This can have two interpretations. One of them implies the sense of emphasis
a. meri kə -hwala-u-aa məs'haf aj-t-a nəbər

Meri from-behind-3sg-3Fsg book see-Ref-3Fsg be(past)
'Mary saw a book behind her.' No emphatic meaning
b. meri Kə -ras-u-a hwala məs’haf aj-t-a nəbər

Meri from-self-3sg-3Fsg behind book see-1Fsg be(past)
'Mary saw a book behind herself.' (literal) Emphatic: Mary did not expect to find the book behind her, herself, but she found it there.
g) John bought the book for himself. (benefactive)

Only the benefactive marker (preposition) will be introduced. The rest will remain the same.

| d3on | məs'haf-u- n | lə- | ras-u | gəzz-a |
| :--- | :--- | :--- | :--- | ---: |
| John | book | -det-acc | for (benef)- | self-3sg |

Also consider things like experiencer-subject verbs, non-nominative subjects, etc., which 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.

## This also uses the same strategy- the ras-person strategy.

2.1.5 Person and number - Some languages use different strategies depending on person or number. 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.
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:

## No other strategy for different aspects. Only the adverbials and the verb forms change, not the reflexive.

A6a) Peter knows himself.
b) Peter (habitually) criticizes himself.
c) Peter is likely to praise himself.
(b) Do quantificational constructions involve a separate strategy?

## No other strategy for quantificational constructions. Only the adverbials and the verb forms change, not the reflexive.

A7a) Every boy looked at himself.
b) All the women described John to themselves.
c) Every teacher introduced himself to Bob.
d) Some children only help themselves.
(c) If your language has a system of grammaticized honorifics, do some types of honorific allow a strategy that has not been listed yet? The Yoruba example below allows several plural interpretations, as given below, but it can also mean "He (honorific) saw himself", although it is not otherwise singular.

A8) Wón rí ara won.
they see body them
"They saw themselves." or "They saw each other." or "They saw their bodies."
There really are honorific constructions, but the reflexive construction uses the rasperson strategy already explained. The difference here is only on the agreement
suffixes for different persons.

ṫrstwo ras-wo-n ajj-u
you(sing, honorific) self-2sg(honorific)-acc see (perf) $-2 \operatorname{sing}$ (honorific)
'You(honorific) saw yourself.'
$\begin{array}{lll}\begin{array}{l}\text { +ंssatftfow } \\ \text { he/she(honorific) }\end{array} & \text { ras-atftf-əu-n } & \text { ajj-u } \\ \text { head-pl-3pl-acc } & \begin{array}{l}\text { see(perf) }-3 \mathrm{pl}\end{array}\end{array}$
'He/she saw himself/herself.'
(d) The above were all tensed main clauses. Experiment with placing both coreferring arguments in various types of subordinate clauses, as your language allows. For example, consider tensed complements, subjunctives, infinitivals, purpose clauses, or any other embedding construction your language provides. (But keep both coreferent arguments in the same clause). Only provide examples corresponding to the sentences in A9 if any translation reveals a new strategy (which you should name).

No other strategy.
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.

### 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.

| tne tinantinna | kə abraham | gar | aworra-hu. |  |
| :--- | :--- | :--- | :--- | :--- |
| I | yesterday | with Abraham | with | speak(perf)-1sg. |
| 'I spoke with Abraham yesterday' |  |  |  |  |

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

| abraham $\quad$ jet | all-ə |  |
| :--- | :--- | :--- |
| Abraham | where | be-3sg |
| 'Where is Abraham? |  |  |


'I saw him in the market.'
c) We saw you. Did you see me/us?

```
inna inantə-n aj-t-ən-atftf-hu nəbər
we you pl -acc see (perf)-Ref-1pl(subj)-pl-2pl be(perf)
'We saw you.'
```

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.
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.
Arguments, both subject and object, can be dropped in Amharic as there are agreement suffixes in the verb.

A10d) Ate fish. (meaning he/she/they/it/we/you/I ate fish)

| d1 | asa <br> fish <br> ealt-o <br> eat(perf) -3Msg | nəbər (perf) <br> be | 'he ate fish' |
| :--- | :--- | :--- | :--- |
| d2 | asa bəlt-a | nəbər | 'She ate fish.' |

e) Hal hit (meaning Hal hit him/her/them/it/us/you/me)
e1 hal mətt-o-t nəbər
Hal hit $_{\text {perf }}-3 \mathrm{ssg}(\mathrm{subj})-3 \mathrm{Msg}(\mathrm{obj}) \quad$ be past
'Hal hit him.'
e2 hal mətt-o-at nəbər 'Hal hit her.'
e3 hal mətt-o-atttfownəbər 'Hal hit them.'
e4 hal mətt-0-t nəbər 'Hal hit it.'
e5 hal mətt-o-n nəbər 'Hal hit us.'
e6 hal mətt-o-h nəbər 'Hal hit you(Msg).'

| e7 | hal | mətt-o-S | nəbər 'Hal hit you(Fsg).' |  |
| :---: | :---: | :---: | :---: | :---: |
| e8 | hal | mett-o-atftithu | nəbər | 'Hal hit you(pl).' |
| e9 | hal | matt-o-nn | nəbər | 'Hal hit me.' |
| f1 | f) Hal talked to (meaning Hal talked to him/her/them/it/us/you/me |  |  |  |
| f | Hal | talk $\mathrm{perf}^{\text {- }}$ - Msg (subj)-3 | Msg(obj) | ) be past $^{\text {d }}$ |
|  | 'Hal talked him.' |  |  |  |
| f2 | hal | annəgagr-o-at nəbər |  | 'Hal talked to her.' |
| f3 | hal | annəgagr-o-at5tJow | nəbər | 'Hal talked to them.' |
| f4 | hal | annəgagr-o-t | nəbər | 'Hal talked to it.' |
| F5 | hal | annəgagr-o-n nəbər |  | 'Hal talked to us.' |
| F6 | hal | annəgagr-o-h nəbər |  | 'Hal talked to you(Msg).' |
| F7 | hal | annəgagr-o- $\int$ | nəbər | 'Hal talked to you(Fsg).' |
| F8 | hal | annəgagr-o- atft $f$-hu | nəbər | 'Hal talked to you (pl).' |
| F9 | hal | annəgagr-o-n nəbər |  | 'Hal talked to me.' |

### 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.

| ali | (+ssu-n ) | amoggłs-o-t | nəbbər |
| :--- | :--- | :--- | :--- |
| Ali | (he- acc) | praise(perf) $-3 \mathrm{Ms}($ Subj $)-3 \mathrm{Ms}(\mathrm{Obj})$ | be(past) |

Comment: This NP can be omitted as the object can be read from the object suffix in the verb.
h) Ali liked him.

| ali | (ł̇su-n) | wədd-o-t | nəbbər |
| :---: | :---: | :---: | :---: |
| Ali | (he-acc) | $\mathrm{like}_{\text {perf }}-3 \mathrm{Msg}(\mathrm{Subj})-3 \mathrm{Msg}(\mathrm{Obj})$ | be(past) |
| ) Ali saw him |  |  |  |
| ali | (̇̇su-n) | ajt-o-t | nəbbər |
| Ali | (he-acc) | see $_{\text {perf }}-3 \mathrm{Msg}$ (Subj)-3Msg(Obj) | be(past) |

j) Ali talked to him

|  | (ł̇su-n) | annəgagr-o-t | nəbbər |
| :---: | :---: | :---: | :---: |
| Ali | (he-acc) | talk(perf) -3 Ms (Subj)-3Ms(Obj) | be(past) ${ }_{\text {t }}$ |

k) Ali sent a book to him.
ali (lə-ł̌ssu) məs'haf liłk-o-ll-ət nəbbər Ali (to he) book send (perf)-3Ms (Subj)- ben-3Msg (Obj) be(past)

1) Ali helped him
ali (†ssu-n) radt-o-t nəbbər
```
Ali (he-acc) help(perf)-3Msg(Subj)-3Msg(Obj) be(past)
```

m) Ali surprised him

| ali | ( +̇ssu-n) | as-gərrím-o-t | nəbbər |
| :---: | :---: | :--- | :---: |
| Ali | (he-acc) | cause-surprise(perf) $-3 \mathrm{Msg}(\operatorname{Subj})-3 \mathrm{Msg}(\mathrm{Obj})$ |  |
| be(past) |  |  |  |

n) Ali bought a book for him

| ali | (lə-issu) | məs'haf | gəz-to-ll-ət | nəbbər |
| :--- | :--- | :--- | :--- | :--- |
| Ali | (to he) | book | send(perf)-3Msg (Subj)- ben-3Msg (Obj) |  |
| be(past) |  |  |  |  |

o) Ali read a book about him

| ali | stlə ṫssu | məs'haf | anbib-o | nəbbər |
| ---: | :--- | :--- | :--- | :--- |
| Ali | about he | book | read(perf) $-3 M \operatorname{Msg}($ Subj $)$ | be(past) |

p) Ali found a book near him

| ali | bə- | tssu | ak'rabija məs'haf | agint-o | nəbbər |  |
| :--- | :--- | :---: | :---: | :---: | :--- | :--- |
| Ali | prep | he | near | book | find $_{\text {perf }}$ 3Ms (Subj) | be(past) |

In English, none of (A10g-n) are acceptable if him = Ali, rather all speakers find that him must refer to someone other than Ali. Most English speakers, though not all, accept (A101, m) with him = Ali. Try to use verbs close to these and use pronouns corresponding to the direct object (or object markers, if that is what your language uses for direct object pronouns) and determine if the pronoun you use can form a reflexive reading (=Ali) or not in these cases or not. It is especially important to keep in mind that we also need translated examples that show what is not possible, when that is the case.

### 2.3 Reciprocal Readings

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.
2.3.2 As a means of assessing what sorts of reciprocal strategies your language contains, consider these typical sorts of reciprocal sentences in English. If a new strategy is involved (a special reciprocal form, or affix, or clitic or argument drop, or verb form, etc.), name it and give an example.

## The strategy is similar to the ras-by- ras with some minor change for the plurals. So we may call it just ras-by ras 2 or (rs by rs). Note that accusative marker -n is dropped.

A11a) The women see each other.

| set- otftf-u | irs-bə-rs-atftf-əu | ji-tə-jajj-all-u |
| :---: | :--- | :--- |
| women-plu-det | self -conj-self-plu-3pl | 3-REFs-see(imperf)-be-3pl |

b) The boys washed each other.

c) The men combed each other's hair. $\begin{array}{lll}\text { səw-ot } f t f-u & \text { łrs-bə-rs-atftf-əu } & \begin{array}{l}\text { s'əgur-atft } \int \text { əw-u-n tə-bət'at't'tər-u } \\ \text { man-plu- det }\end{array} \\ \text { self-conj-self-plu-3pl } & \text { hair-plu-det-acc } & \text { REF-comb(perf)-3plu }\end{array}$
d) They argued with each other.

| †̀nnəssu | trs-bə- rs -atftf-əu | tə-kərakkər-u |
| :--- | :--- | :--- |
| they | self-conj-self-plu-3plu | REF-argue(perf)-3plu |

e) The boys kicked each other.

| $1+\mathrm{db}$-ot5ts-u | +rs-bə-rs -atst-əu | to-məttat-u |
| :---: | :---: | :---: |
| child-plu-det | self-conj-self-plu-3plu | REF-hit(perf)- |

f) They hate each other.

$$
\begin{array}{lcl}
\hline \text { tinnəssu } & \text { trs-bə-rs -atftf-əu } & \text { jit-t'olallal-u } \\
\text { they } & \text { self-conj-self-plu-3plu } & \text { 3pl-hate(imperf) }-3 \text { plu }
\end{array}
$$

## In irs-bə-rs -atttf-əu u becomes $\mathbf{w}$ in speech to avoid the impermissible sequence of two vowels

Comment: All the verbs that are used in the reflexive readings in the above sentences have a different form. The middle consonant of the verb stem is geminated to show that the action is a repeated action. In addition, the status of /tz-/ seems to be that of a reflexive marker. The same morpheme is used as a passivizer in the language.

Eg. A. tə-gəddəl-ə
Pass- kill(perf) -3sg 'He was killed'
B. tə-dəssət-ə

REF-delight(perf)-3sg 'He was delighted'
2.3.3 Oblique arguments - Continue looking for new reciprocal strategies with the following sentences:

A12a) The men introduced Bill to each other.

| səw-otftf-u | bil -in and-u | lə-lela-u | as-tə-wawək'-u-t |
| :--- | :--- | :--- | :--- |
| men-plu-det | Bill-acc one-3sg | to-other-3Msg | cause-pass-introduce(perf)-3pl(subj)-3sg(obj) |

c) The priests heard stories about each other.

| k'es -otftf-u | and-u | jə-lela-u-in | tarik | səmm-u |
| :--- | :--- | :--- | :--- | :--- |
| priest-plu -det | one-3sg | of-other-3Msg-acc | story | hear(perf)-3pl |

d They left presents in front of each other.

| tnnəssu and-u | bə-lela-u | fit | sit'ota | as-k'əmət'-u |
| :--- | :--- | :--- | :--- | :--- |
| they | one-3sg | of - other-3Msg | front(face) | gift | | cause-put-3plu (subj) |
| :--- |

In lela-u, u becomes $\mathbf{w}$ in speech to avoid the impermissible sequence of two vowels
This strategy can be named one -another. There is also another strategy that can work for c and d

| k'es -otftf-u | and-u | jə-and-u-n |  |  |
| :--- | :--- | :--- | :--- | :--- |
| priest-plu -det | one-3sg | of-one-3sg-acc | tarik | səmm-u |

d They left presents in front of each other.

| tnnəssu | and-u | bə-and-u | fit | sit't'ota |
| :--- | :--- | :--- | :--- | :--- |
| they | one-3sg | of - one-3sg | front(face) | gift | cause-put-3plu (subj)

## This could be called the one-one strategy.

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.

No other strategy.
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.
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.
Nothing new!
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.

### 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.

| pəwul t'ama-u-n | t'al-ə |
| :--- | :--- |
| Paul shoes-3sg-acc | lose(perf) 3Msg |

( $u$ becomes $w$ in speech to avoid the impermissible sequence of two vowels.)

## Comment: This sentence can have two meanings

1. Paul lost the shoes (any shoes that is definite)
2. Paul lost his shoes.
b) Paul raised his hand. (e.g., in class)
pəwul +id3d3-u-n awət't'-a
Paul hand-3sg-acc raise(perf)-3sg
c) Paul cut his hand. (e.g., accidentally)

| pəwul +d3d3-u-n | k'orrət'-ə |
| :--- | :--- |
| Paul hand-3Msg-acc | cut(perf)-3sg |

d) Paul examined his hand.
pəwul +dzdz-u-n ajj -ə
Paul hand-3sg-acc see(perf)-3sg
2.4.2 Reflexives 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.

| jə- andriw | bə-ras | mətəmamən | meri -n | a-nnaddəd-at |
| :--- | :--- | :--- | :--- | :--- |
| of-Andrew | of-head(self) | confidence | Mary-acc | cause-angry(perf)-3Fsg |

A17) Andrew's introduction of himself impressed the teacher.

| jə- andriw <br> of-Andrew | ras -u-n <br> of-head(self) | mastrawawok <br> confidence | məmmhirun -n <br> teacher-acc |
| :--- | :--- | :--- | :--- | | as-gərrom-ə-u |
| :--- |
| cause-surprise(perf)-3sg-3Msg |

## Part 3 General details about the strategies

### 3.1 Marking

3.1.1 Some strategies are manifested as involving special nominal (NP) form (an "anaphor" if it must have a configurational antecedent) or a (potentially independent) pronoun; others by means of a morpheme that attaches to the verb or auxiliary; yet others by a change in verb form without an identifiable "reflexive" morpheme, e.g., by passivization ("verbal reflexives"). Occasionally, a strategy will even involve both a special NP and marking on the verb. We would like to focus for part of this section on the way strategies are marked

Marking Strategies for coconstrued interpretations
$\mathrm{Ma})$ Marking on a coconstrued argument or adjunct.
b) Marking on the verb or an auxiliary.
c) Coconstrual is marked by dropping an argument.
d) Coconstrual is signaled by a specialized adjunct.

The marking for all the strategies is coconstrual. There is an independent element serving as the reflexive or reciprocal.

### 3.2 Productivity

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

The ras-person strategy is extremely productive; it can be used with almost all verbs that can have a reciprocal or reflexive effect. Both types of the ras-by-ras strategy are extremely productive. The one- another and the one-one strategies are fairly 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)?

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

Comment: It seems that the ras-person strategy has almost no exception.

| H1a. | issu ras-u-n | gəddəl-ə |
| :--- | :--- | ---: |
|  | he self-3sg-acc |  |
|  | 'He kill(perf)-3sg himself.' |  |

Comment: In using the ras -by-ras strategy, again there seems to be no exception except for verbs like ashamed(may be that is because of semantic grounds)

```
H1b. ras-atftf-əu-n bə-ras-atftf-әu gəddəl-u
    self-plu.-3plu -acc by -self-plu.- 3plu kill (perf)-3pl
    ' They killed themselves by themselves.' (literal)
H1c. ras-atftf-əu bə-ras-atftf-əu tə-gədadəl-u
    self-plu.3plu by -self-plu-3pl pass-kill kill (perf)-3pl
    ' They killed themselves by themselves.' (literal)
    (They killed each other/They killed each other by each other)
Comment: In the latter sentence the accusative marker is dropped!
Again, note that the dropping of the pro forms is necessary to avoid awkwardness.
```

Comment: In using the ras-by-ras 2 strategy, the verbs that are used are the ones that show repetition by reduplicating the verb stems. So it can be said that it has few exceptions.

```
H1d. irs-bə-irs-atftf-əu tə-gədadəl-u
    self-by- self-plu-3sg-3pl pass-kill kill (perf)-3pl
    'They killed each other.'
```

Comment:The one-another strategy has almost no exceptions as far as the verbs are concerned. All the verbs that can be used in the ras-person can be used with one another. Nevertheless, we do not normally make sentences like' They hit one another. '

The subject pronouns should be dropped. If the subjects are nouns, then they are separated off from the rest of the sentence by a pause.

| H2a. innəssu | and-u | lela-u-n | mətt-a |
| :--- | :--- | :--- | :--- |
| they | one-det. | another-def-acc | hit(perf)-3Msg |

'They hit one another.'
H2b. and-u lela-u-n
mətt-a
one-det. another-def-acc hit(perf)-3Msg
'They hit one another.'
Note: in lela-u-n u becomes $\mathbf{w}$ to avoid the impermissible sequence.

### 3.3 Context of Use

3.3.1 How marked or natural is this strategy? For example, is this strategy typical of a particular social style or literary style, or does it sound old-fashioned? Is it considered formal or casual or is it used in any of these contexts?

All the strategies can be used. It is just a matter of preference of the verb forms.
3.3.2 Is special intonation or emphasis necessary, and if so, where (e.g., is it on the morpheme that constitutes the marker for the strategy or is it a contour on the verb, or perhaps a special contour for the whole sentence).

No special prosody.
3.3.3 Is a particular discourse context (e.g., contradicting) necessary? For example, it is possible to get coconstrual of subject and object in English with an object pronoun in special circumstances, as in B1.

B1a) If Marsha admires just one person, then I suspect that she admires just HER.
b) Marsha thinks I should trust no one but herSELF.

Consider whether or not one of the strategies you have named may be described as only possible in such a specially stressed or marked environment.

No such stress or intonation needed. There is an emphatic word that is used with the ras- person strategy. It is b+tftfa which means only.

| H3. | issu rasu-n bitftfa | godd-a |
| :--- | :--- | :--- | :--- |
| he head-acc only | hurt(perf)-3sg |  |
| 'He hurt only himself.' |  |  |

### 3.4 Morphology

In this section we explore the internal structure or lexical properties of the form that supports a reflexive or reciprocal reading or any other form that is involved in the strategy (so, for example, if a given strategy involves both an affix on the verb and a special form of NP argument, answer
for both parts).
3.4.1 Does the reflexive element, in its entirety, have a stateable lexical translation?

Yes it has. ras means 'head'. So if we take the accusative marker -n out there will be ras-person. In addition to the reflexive meaning of the construction, thus, we can get the following meanings.

```
ras-e (head-1sg) means my head like bet-e (house-1sg) my house
ras-u 'his head'
ras-u-a 'her head' (u-a becomes w-a)
ras-h 'your head'(masc)(sing)
ras-\int 'your head' (fem) (plu)
ras-atftf-in 'our head' ( }\dagger\mathrm{ is an epenthetic vowel)
ras-otftf-atftf-in 'our heads'
ras-atftf-hu 'your head' (plu)
ras-otftf-atftf-hu 'your heads' (plu)
```

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?
It is a noun that can be possessed. Look at the examples given in 3.4.1. In addition, independent possessive pronouns can come before the word 'ras'.

```
jə-ine ras Note: in pronunciation, j-ine becomes jəne/ the
poss-1 head same is tgrue for all other persons
'my head'
jə-issu ras 'his head'
jə-isswa ras 'her head'
jə-antə ras 'your head'(masc)(sing)
jə antfi ras 'your head' (fem) (plu)
jə-innna ras 'our head'
jə-innant ras 'your head'(plu)
```


## $\dagger$ is deleted in speech to avoid the impermissible sequence of two vowels.

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

All the following words could be used as possessive NPs to indicate possession of a 'head'. They , at the same time, can be used in emphatic constructions.

```
ras-e 'my head'
head-1sg
ras-h 'my head'
head-2Msg
```

```
ras- i` 'your (F)head' ( }\dagger\mathrm{ is epenthetic)
head-2Fsg
ras-u 'his head'
head-3Msg
ras -u-a 'her head' (w is an assimilated form from u)
head-3sg-3Fsg
ras-atftf-in 'our head' ( i is epenthetic)
head-plu-1plu
rasa-atftf-hu 'your(plu) head'
head-pl-2pl
ras -atftf-z-u 'their head'
head-pl-3-3pl
```

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

Yes. /ras/ means head, just as other parts of our body like eye or hand etc. So it has the property of nouns.

### 3.5 The agreement paradigm

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).

## a. For the ras-person strategy

```
ras-e 'myself'
self-1sg
ras-h 'yourself' (M)
self-2Msg
ras-i}\{\quad'yourself'(F
self-2Fsg
```

```
ras-u 'himself'
self-3sg
ras -u-a 'herself'(w is an assimilated form from u)
self-3sg-3Fsg
ras-atftf-in 'ourselves', \dot{t}\mathrm{ is an epenthetic vowel.}
self-plu-1plu
ras -atftf-h u 'yourselves'
self-2sg
ras -atftf -\partialu 'themselves'
self-pl-3plu
```

b. the ras-by- ras strategy

| $\begin{aligned} & \text { ras-e-n } \\ & \text { self-1sg-ace } \end{aligned}$ | bə-ras-e by-self-1sg | 'myself by myself' |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { ras-h-n } \\ & \text { self-2Msg-acc } \end{aligned}$ | $\begin{aligned} & \text { bə-ras-h } \\ & \text { by-self-2Msg } \end{aligned}$ | 'yourself by yourself'(M) |
| $\begin{aligned} & \text { ras- } \int-\dot{\boldsymbol{t}} \mathrm{n} \\ & \text { self- } 2 \mathrm{Fsg} \text {-acc } \end{aligned}$ | $\begin{aligned} & \text { bə- ras- } \\ & \text { by-self-2Fsg } \end{aligned}$ | 'yourself by yourself' (F) |
| ras-atftf-hu-n self-pl-3sg-acc | bə- ras-atftf-hu by- self-pl-3sg | 'yourselves by yourselves' |
| ras-atfts-n-in self-pl-1pl-acc | bə- ras-at $5 t-\dot{t}$ <br> by- self-pl-1pl | 'ourselves by ourselves' |

Comment :/ $\dot{\boldsymbol{f}}$ / is an epenthetic vowel

| ras-at $\int$ t-əu-n | bə- ras-at ${ }^{\text {d }}$--əu | 'themselves by themselves' |
| :---: | :---: | :---: |
| self-pl-3pl-acc | by- self-pl-pl-3pl |  |

Comment: The accusative marker can be dropped in all cases.
c. the ras-by- ras 2 strategy (used with the plural pronouns or in the sense of the plural nouns only)

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.)

### 3.6 Interaction with verb morphology - Incompatibilities

### 3.6.1 Tense, Mood, Aspect.

Check with at least the verbs meaning see, praise, help, like, know, and wash.
B3a) Gina (generally) washes herself
b) Gina has washed/was washing herself.
c) Gina should wash herself.

Tense, aspect and mood are expressed by bound morphemes attached to the verbs, The anaphors are not affected
3.6.2 Grammatical Function (GF)-changing - Consider GF-changing constructions or operations in your language that affect the argument structure of a verb, adding, promoting, or demoting arguments. For example, passive, antipassive, stative, benefactive, applicative, etc. Sometimes Grammatical-Function Changing ("GF-changing") morphemes, such as passive, inverse, middle, dative alternation, causative, applicative affixes or markers etc. are incompatible with a given coconstrual strategy.
3.6.3 (formerly 3.6.1) If you are aware of operations or morphemes that cannot co-occur with this strategy, then list them here, providing an example an a brief statement of what the incompatible morphemes or constructions are.

### 3.7 Uses that are not quite coreference

3.7.1 Idiosyncratic or inherent. Some languages have verbs that lexically require a reflexive which does not appear to correspond to an argument. The uses are typically special idioms. [Example: English has a few such verbs, for example, perjure oneself. For this verb, * ${ }^{\text {John }}$ perjured Bill is not possible. German has many more, such as sich erinneren,"to remember", as does French, such as s'évanouir, "to faint"] Are there such uses for the current strategy? If so, give examples of as many as possible. It may turn out that not all reflexive idioms you find make use of the same strategy. Martin Evereart has noted that most idiosyncratic (sometimes called 'inherent') reflexives in Dutch are formed with zich, but a small set of others are formed with zichzelf. Please be on the look-out for such contrasts.
3.7.2 Emphatic or intensifier. As in the English, The president himself answered the phone.

Emphatic meaning is possible when the ras-person pronoun is used next to the noun or pronoun in the sentence
Eg. kasa ras-u hed- o nəbbər
Kasa self-3sg

| Kasa |
| :--- |
| 'Kasa himself went' |

aster go-3Msg $\quad$ be(past)
3.7.3 Middle. The argument structure of the verb is changed into a form that has an explicit patient, but no agent is present and an agent may or may not be implied. In English, this construction is not marked by any overt morphology, e.g., The tires on this car change easily. However, middles are associated with reflexivization in many languages.
3.7.4 Distributive, sociative, etc. Some strategies (reciprocal markers most frequently) can also be used to mean that some action was performed separately, or jointly, or repeatedly, etc. You should only report uses that do not involve coreference between two logical arguments.
3.7.5 Deictic use - If the current strategy involves a nominal form (e.g., English himself) Can this form be used when the antecedent is physically present or otherwise prominent, but has not been mentioned (such that X does not refer to Bill or Mary)? (Suggest a context if necessary).

B5a) Bill did not see X

| bil | ras-u-n | al-ajj-ə-u-m |
| :--- | :--- | :--- |
| bill | self-3sg-acc | neg-see(perf)-3sg(subj)-3sg(obj)-neg |

'Bill did not see himself' (This could mean Bill did not see Bill himself or Bill did not see the person he wanted to see. Perhaps he saw his representative, secretary or somebody else. )
b) Does Mary like X?
mery ras-u-a-n-u t-wodd-at-all- әt5ts wəj

Mary self-3sg-3Fsg-acc-det 3Fsg-like(imperf)-3Fsg(Obj)be-3Fsg Question 'Does Mary like herself?' (Herself referring to somebody else, not Mary)
Note: Question= question word
c) X went to the bank yesterday.

| tinanttina | ras-u | wədə | bank | hed-ə |
| :--- | :--- | :--- | :--- | :--- |
| yesterday | self-3sg | to | bank | go(perf)-3sg |

'Himself went to the bank yesterday' (This could be attered for a question which asks who went to the bank yesterday, may be because the person was busy or sick or did not want to go the bank. The statement shows an emphasis that tells it is the same person, himself, that went to the bank.

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

B6a) Bill insulted X . ( $\mathrm{X}=$ speaker, $\mathrm{X}=$ addressee )
bil ras-u-n səddəb-ə-u

Bill self-3sg-acc insult(perf)-3sg(subj)-3sg(obj)
'Bill insulted himself' (Bill insulted the person he was talking to, not another person)
b) Many people do not like anchovies, but X likes them.
( $\mathrm{X}=$ speaker, $\mathrm{X}=$ addressee)

| bł̇zu | səww-otft | asa | aj-wədd-u-m, | ras-e | gł̇n |
| :--- | :--- | :--- | :--- | :--- | :--- |
| many | man-plu | fish | neg-like(imperf)-3pl-neg | self-1sg | but |

$\dot{\dagger}$-wədd-all-əhu
ə epenthetic vowel
1sg-like(imperf)-be-1sg
'Many people do not like fish, but myself like'
'Many people do not like fish, but I do'

| b+̇zu | səww-otft | asa | aj-wədd-u-m, | ras-h | gł̇n |
| :--- | :--- | :--- | :--- | :--- | :--- |
| many | man-plu | fish | neg-like(imperf)-3pl-neg | self-2sg | but |

t-wədd-all-əh
2sg-like(imperf)-be-2sg
'Many people do not like fish, but yourself like'
'Many people do not like fish, but you do'
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". There are otherwise local anaphors in Hindi, for example, that can have the latter usage.

B7a) I don't like the way he speaks to one.
b) One cannot be too careful
c) Bill insults one before one can say a word.
3.7.6 Other. Are there other ways to use the strategy that do not express coreference (or reciprocal coreference) between two arguments? If so, give examples and a brief explanation here.

### 3.8 Proxy readings

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

B8a) Castro admired himself in the wax museum. (himself = statue of Castro)
b) Grisham has not read himself in Swahili, though he has read himself in Spanish. (himself = Grisham's writings) The differences emerge in English for cases like those in (B9). Imagine that the wax museum is having a special event, which the wax statues of each celebrity will be washed and dressed by the celebrity they represent.

B9a) Castro washed himself carefully, so as not to damage the wax.
b) Castro washed carefully, so as not to damage the wax.
c) The movie star dressed herself carefully, so as not to damage the wax.
d) The movie star dressed carefully, so as not to damage the wax.
e) Castro saw himself in the show, but he didn't like what he saw.

The judgments for English in these cases is that the null strategy in (B9b,d), possible for the verbs dress and wash normally, are not acceptable here, at least not in the intended sense. While (B9d) permits a reading that the movie star dressed her own person, not her statue, in a way that does not damage the wax, it does not mean that she dressed the statue, a reading possible for (B9c). In the case of (B9b), there is a reading for which Castro did some non-specific washing, perhaps of the statue, in a way that does not damage the wax, but it does not have the more specific reading that Castro washed the statue of him that (B9a) has. For (B9e), imagine a show where an actor is playing the part of Castro and Castro is in the audience watching his counterpart on stage.

Test for proxy readings in your language and see if there are instances where they are possible and others where they are not. Proxy readings do not require locality, so cases like B10a-c are also generally possible.

B10a) Grisham says he sounds better in Swahili. (where he = Grisham's writings)
b) Castro thought that he looked handsome. (he = statue of Castro)

Provide both local and long distance examples with gloss and translation of proxy readings. If proxy readings seem difficult for you to get just say so, and if you find that you need to transform the examples in some way to get the right interpretation, feel free to do so, but then be extra careful about gloss and translation.

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

B11a) Mark Twain and Victor Hugo did not read each other in Berber.
b) Marlene and Castro did not see each other in the audience, but they did see each other on the stage/in the show.

### 3.9 Ellipsis

Consider the following examples, which all have an ellipsis of one sort or another.
B12a) Sherman likes/praises himself more than Bill
b) Sherman likes/praises himself more than Bill does

English permits both of these, though I suspect (B12b) may not be as widely available as (B12a). If not, then concentrate on (B12a). The following readings are possible for (B12a) in English:
i. Sherman likes/praises himself more than Sherman likes Bill.
ii. Sherman likes/praises himself more than Bill likes him (=Sherman).
iii. Sherman likes/praises himself more than Bill likes himself.

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

Ellipsis has the same effect on the readings because each sentence like (B12a) has two representations.

| sherman | ras-u-n kə-bil | jə-bəlləet'-ə | j-wodd-al |
| :---: | :---: | :---: | :---: |
| Sherman | self-3Msg-acc from-Bill | than-great-3sg | 3Msg- like(Imperf)-be |
| 'Sherman likes himself more than Bill' |  |  |  |

a. The meaning that comes to mind when one hears this sentence is that Sherman likes
himself more than he likes Bill.
b. But it is also possible to have the interpretation Sherman likes himself more than Bill
likes himself, especially if two people have been talking about people's tendencies to like
themselves.

## PART 4 Exploration of syntactic domains

In this section you will be asked to construct a variety of sentence types and test their acceptability. In typical cases, an English sentence will be provided as a guide with one argument marked " X " and the X argument is to be construed as coreferent with some other designated argument (e.g., $\mathrm{X}=\mathrm{John}$ ).

Use the following symbols for grammaticality judgements. You do not have to employ all of them for any given paradigm.

[^0]
### 4.1 Clausemate coconstrual

### 4.1.1 Verb class restrictions

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

C1a) Bob saw X.
b) The women described X .
c) You(pl.) kicked X.
d) They praised X
a.1. ok bob ras-u-n

Bob self-3Msg-acc
'Bob saw himself'

The grammaticality and meaning would better improve if we add an adverbial here.
bob ras-u-n bə-məstəwat ajj-ə

Bob self-3Msg-acc by-mirror see(perf)-3sg
'Bob saw himself in the mirror'
a2. ?* bob ras-u-n bə- ras-u ajj-ə
Bob self-3Msg-acc by- self-3Msg see (Perf) -3sg
This is a bit awkward.
b1. ok set-otftf-u ras-atftf-əu-n gəlləs'-u
woman-pl-det self-pl-3pl-acc see(Perf)-3Msg
'The women described themselves'
b2. ok set-otftf-u ras-atftf-əu-n ras-atftf-əu gəlləs'-u woman-pl-det self-pl-3pl-acc self-pl-3p see(Perf)-3Msg
'The women described themselves by themselves'
c1. ? ras-h-in məta-h
self-2Msg-ace
hit(perf)-2Msg
'You hit yourself)
c2 ? ras-h-in bə-ras-ith məta-h
self-2Msg-acc by-self-2Msg hit(perf)-2Msg
'You hit yourself by yourself'

## $\dagger$ is an epenthetic vowel

c1 and c2 are grammatical but not logical in the language. They are used in a very specific condition that is not common.

| d1. ok $\quad$ras-at $f t f-\partial u-n$ <br> self-plu-3pl-acc | aməsəggən-u <br> praise(perfec)-3pl |
| :--- | :--- | :--- |
| 'They praised themselves' |  |

aməsəggən-u
praise(perfec)-3pl self-plu-3pl-acc by-self-plu-3pl 'They praised themselves by themselves'
d 2 is more common than d 1 . If someone praises himself, it seems that it is necessary to emphasize, hen=ce the ras-by -ras strategy is preferred.
4.1.1.2 Commonly reflexive predicates - Can this strategy be used with verbs of grooming, inalienable-possession objects, etc? Give judgements on the following. Provide some additional examples of your own.

C3a) Donna washed X. $(X=$ Donna $)$
b) Don cut X 's hair. $(\mathrm{X}=\mathrm{Don})$.
c) The girl cut X [unintentionally] ( $\mathrm{X}=$ the girl $)$

Yes it is possible to use the reflexive anaphors to the verbs of grooming.

| a1 * | dona ras-u-a-n Dona self-3-3Fsg-acc Dona washed herself | at't' $\quad$ 'b-ə-t wash(Perf)-3sg-3Fsg |
| :---: | :---: | :---: |
| a2 * | dona ras-u-a-n <br> Dona belf-3-3Fsg-acc <br> 'Dona washed herself by herself'  | $\begin{array}{ll} \text { ras-u-a } & \text { at't}^{\prime} t^{\prime} \partial b-\partial-t f \\ \text { self-3-3Fsg } & \text { wash(Perf)-3sg-3Fsg } \end{array}$ |
| a3 Ok | dona ras-u-a <br> Dona self-3-3Fsg-acc <br> 'Dona washed herself' | t-at't'əb-ə-ts REF-wash(Perf)-3sg-3Fsg |

## Actually in the underlying form, $t \int$ is -ti .

The dropping of the accusative marker is necessary. If it is left there, the meaning of a3 will be ' Dona washed her head'. this is because 'ras' means head as well as 'self' The reflexive marker in the verb is necessary. a1 and a2 are not acceptable (with the verb wash.)

| b1 | ok | dona jə- <br> Dona Pos <br> 'Dona cut | s-u-a-n <br> elf-3-3Fsg-acc hair hair' |  | $\begin{aligned} & \text { 'z-tf } \\ & -3 F s g \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| b2 | ? | dona jə- <br> Dona Poss- <br> 3Fsg <br> Dona wash | ras-u-a-n s'gur self-3-3Fsg-acc <br> herself | $\begin{aligned} & \text { bə- ras-u-a } \\ & \text { hair by- self-3-3Fsg } \end{aligned}$ |  |

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

C4a) John hates/fears X
ok dzon ras-u-n John self-3Msg-acc
'John fears himself'
? dzon ras-u-n
John self-3Msg-ace
'John fears himself'
b) John is ashamed of X
ok dzon bə-ras-u-n j-afr- al
John by-self-3Msg-acc
'John fears himself'
c) John is worried about $X$
$\begin{array}{lll}\text { Ok } \begin{array}{ll}\text { dzon stlə-ras-u } & \text { j-tf'ənnək'-al } \\ & \text { John about-self-3Msg }\end{array} & \text { 3Msg-worry(imperf)-be } \\ & \text { 'John worries about himself' } & \end{array}$
d) John is proud of $X$

$$
\begin{array}{ll}
\text { Ok } & \text { dzon bə-ras-u } \\
& \text { John by-self-3Msg } \\
& \text { 'John is proud of himself' }
\end{array}
$$

e) John worries/troubles/pleases X

| Ok | dzon ras-u-n | j-as-tf'tf'ənnik'-al |
| :---: | :---: | :---: |
|  | John self-3Msg-ace | 3Msg-cause-worry(imperf)-be |
|  | 'John worries himself | 'John makes himself worry' |
| Ok | dzon ras-u-n | j-as-tfteggir-al |
|  | John self-3Msg-ace | 3Msg-cause-trouble(imperf)-be |
|  | 'John troubles himself |  |
| ok | dzon ras-u-n | j-as-dəst-al |
|  | John self-3Msg-ace | 3Msg-cause-please(imperf)-be |
|  | ${ }^{\text {'John pleases himself }}$ |  |

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

C5a) The women will destroy $X$
ok set-otftf-u ras-atftf-əu-n j-at'əf-al-u
woman-pl-det self-pl-3pl-acc 3PI-destroy-(imperf)-be-3Pl
'The women will destroy themselves'
Note: Thius may also mean the women will kill themselves(commit suicide).
b) The machines built $X(X=$ themselves $)$
? mafin-otftf-u ras-atftf-əu-n
Machine-pl-det self-pl-3pl-acc
j-sər-al-u
'The machines will build themselves'
$\begin{array}{lll}\text { ? mafin-otftf-u } & \begin{array}{c}\text { ras-at } f t f-\partial u-n \\ \text { self-pl-3pl-acc }\end{array} & \begin{array}{l}\text { j-at'əf-al-u } \\ \text { 3Pl-eliminate(imperf)-be-3PI }\end{array} \\ & \text { Machine-pl-det }\end{array}$
'The machines will destroy themselves'
4.1.1.5 Verbs of representation. Reflexive versions of these verbs include instances where individuals act on their own behalf, rather than have someone act in their name or for them.

C6a) The boys represented X.

| ok $\quad$lids-ot $f t-\mathrm{t}$ | ras-atftf-əu-n <br> child-pl-det <br> self-pl-3pl-acc | wəkkəl-u <br> represent(Perf)- 3PI |
| :--- | :--- | :--- | :--- |
|  | 'The children represented themselves' |  |

b) John spoke for X .

$$
\begin{array}{lll}
\text { ok dzon lə-ras-u } & \text { tə-naggər-ə } \\
& \text { John for-self-3Msg } & \text { REF-speak(Perf)-3 } \\
& \text { 'John spoke for himself' }
\end{array}
$$

### 4.1.2 Argument position pairings

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

C7a) Mary gave the gift to $\mathrm{X}(\mathrm{X}=$ Mary $)$

$$
\begin{array}{llll}
\text { ok } & \text { meri } & \text { st'ta -u-n } & \text { lə-ras-u-a } \\
& \text { Meri } & \text { gift-det-acc } & \text { for-self-3-3Fsg } \\
& \text { 'Mary gave the gift to herself' }
\end{array}
$$

b) John showed the house to $\mathrm{X}(\mathrm{X}=\mathrm{John})$
$\begin{array}{lll}? & \text { dJon bet-u-n } & \text { lə-ras-u } \\ & \text { John house-det-acc } & \text { for-self- } 3 \mathrm{Msg}\end{array}$
'John showed the house for himself'

```
as-ajj-ә
cause-see(Perf)-3
```

C8a) Mary gave X the gift ( $\mathrm{X}=$ Mary )
ok meri lo-ras-u-a st'ta -u-n sət't'-ə-tf

Meri for-self-3-3Fsg gift-det-acc give(Perf)-3 -3Fsg
'Mary gave herself the gift'
b) John showed X to the children $(\mathrm{X}=\mathrm{John})$
$\begin{array}{lll}? & \text { dzon lə-ras-u } & \text { bet-u-n } \\ & \text { John for-self-3Msg } & \text { house-det-ace }\end{array}$ 'John showed himself the house'
4.1.2.2 Oblique arguments - Give some examples with oblique arguments, in whatever forms your language allows. Choose verbs that take oblique arguments in your language and if your language has morphological case, look for arguments that are not in the normal case for objects (e.g., not in the Accusative).

C9a) Dan talked to X.
ok dan kə-ras-u
Dan with-self-3Msg

```
gar awərr-a
with talk(Perf)-Sg
```

'Dan talked to himself'

## Note kə-gar is a discontinuous morpheme that means 'with' or 'together with'

b) Dan told Mary about $\mathrm{X}(\mathrm{X}=\mathrm{Dan})$
ok dan lə-meri st̀lə-ras-u nəggər-a-t
Dan to-Mary about-self-3Msg talk(Perf)-3Msg-3Fsg
'Dan told Mary about himself'
c) Dan gave X a book.
? dan lə-ras-u məs'haf sət't' -ə-u
Dan to-self-3Msg book give(Perf)-3MSg-3Msg
'Dan gave himself an book'
It is the same form if Dan gave a book to John and we want to emphasize the receiver is John himself.
Note: -ə-u becomes w as a result of assimilation.
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) Mary saw a snake behind $\mathrm{X}(\mathrm{X}=$ Mary $)$

| ok | meri | kə-ras-u -a | $h^{\text {w }}$ ala | †bab | ajj-ə-t5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Meri | from-self-3sg-3Fsg | behind | snake | see(perf)- 3sg-3Fsg |
|  | 'Mary saw a snake behind herself' |  |  |  |  |
| OK | meri | kə-iss-u -a | $h^{\text {w }}$ ala | +bab | ajj-ə-t $\int$ |
|  | Meri | from-her-3sg-3Fsg | behind | snake | see(perf)- 3 sg-3Fsg |

## 'Mary saw a snake behind herself'


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

C11a) Mary showed Hal to X.


Note: 1. hal-n will be read as hal-in by inserting the epenthetic vowel to avoid impermissible sequence.
2. The use of an instrument (bə məstəwat) will make the sentence look familiar.
b) Mary showed X to Hal.
meri hal-in lə-ras-u (bə məstəwat) as-ajj-ətf-u
Meri Hal-acc to-self-3sg (with-mirror) cause-see-3Fsg-3Msg
'Mary showed Hal to himself (in the mirror)'
c) Bill gave Hal X.

$$
\begin{array}{lll}
\text { ?* } & \text { bil lə-hal } & \text { ras-u-n }
\end{array} \begin{aligned}
& \text { sət't'ə-u } \\
& \\
& \\
& \text { Bill to-Hal } \\
& \text { 'Bill gave Hal himself.' }
\end{aligned}
$$

```
d) Bill gave X Hal.
\begin{tabular}{llll} 
? \(^{*}\) & bil ras-u-n & lo-hal & set't'ə-u \\
& Bill self-3sg-acc & to-Hal & give(perf)-3sg
\end{tabular}
'Bill gave himself to Hal.'
e) Mary told/asked the boys about themsleves/each other.
\begin{tabular}{|c|c|c|c|c|}
\hline OK & meri & lidz-otfti-u-n & silo-ras-attit-əu &  \\
\hline & Mary & child-plu-det-acc & about-self-plu-3plu & ask(perf)-3sg- 3Fsg - plu - 3pl \\
\hline & 'Mar & asked the boy & out themselves' & \\
\hline
\end{tabular}
```

$$
\begin{aligned}
& \text { t'əjjek'-ə-tftf-atftf-əu } \\
& \text { ask(perf)-3sg- } 3 \text { Fsg - plu - } 3 \text { pl }
\end{aligned}
$$

```
'Mary asked the boys about themselves'
```

| meri lidsot $f t$ f-u-n | silə-irs-bə-rs -at $f t$-əu |
| :--- | :--- |
| Mary -child-plu-det-acc | about-self-by- self-plu-3plu |

$$
t^{\prime} \text { 'əjjok'-ə-tttf-atftf-əu }
$$

ask(perf)-3sg-3Fsg - plu - 3pl
'Mary asked the boys about each other'
OK


$$
\begin{aligned}
& \text { nəggər-ə-tttf-atftf-əu } \\
& \text { tell(perf)- } 3 \mathrm{sg}-3 \mathrm{Fsg} \text { - plu-3pl }
\end{aligned}
$$

'Mary told the boys about themselves'

Mary to -child-plu-det-acc about-self-by-self-plu-3plu tell(perf)- 3sg-3Fsg-plu-3pl
'Mary told the boys about each other'

```
f) Mary showed/introduced/presented the boys to each other.
?* meri lids-otttf-u-n irs-bə-rs -atftf-əu a-k'ərrəb- ə-tftf-atftf-əu
Mary to -child-plu-det-acc self-by -self-plu-3plu cause-present(perf)- 3sg-3Fsg- plu-3pl
'Mary presented the boys to each other'
```

a-k'әrrob-ə-tftt-atfts-əu
cause-present(perf)- 3sg-3Fsg- plu-3pl

```
'Mary presented the boys to each other'
```

```
* meri lids-otftf-u-n ras-bo-rs -atttf-әu a-k'ərrob-ə-tftf-atftf-əu
```

* meri lids-otftf-u-n ras-bo-rs -atttf-әu a-k'ərrob-ə-tftf-atftf-əu
Mary to -child-plu-det-acc about-self-plu-3plu
Mary to -child-plu-det-acc about-self-plu-3plu
'Mary presented the boys to each other'
'Mary presented the boys to each other'
Note that it is possible to say the following by using a different stem that geminates the first consonant and reduplicates the middle consonant of the verb.

| OK | meri | Ifdz-otftf-u-n | trs-bo-rs -atftoru | reb-ə-fft |
| :---: | :---: | :---: | :---: | :---: |
|  | Mary | to -child-plu-det-acc | self-by -self-plu-3plu | e-present(perf) - 3sg-3F |

'Mary made the boys present themselves to each other'

```
```

? meri lids-otftf-u-n ras-bə-rs -atftf-\partialu a-k'k'ərarəb-ə-tftf-atftf-\partialu

```
? meri lids-otftf-u-n ras-bə-rs -atftf-\partialu a-k'k'ərarəb-ə-tftf-atftf-\partialu
    Mary child-plu-det-acc self-by-self-plu-3plu cause-present(perf)- 3sg-3Fsg- plu-3pl
    Mary child-plu-det-acc self-by-self-plu-3plu cause-present(perf)- 3sg-3Fsg- plu-3pl
    'Mary presented the boys to each other'
    'Mary presented the boys to each other'
4.1.2.5 Two internal arguments or adjuncts - Consider coreference between two arguments of adjunct NPs in the same clause, neither of which is a subject and neither of which is a direct object (if your language has such constructions - if not just say so and move on). Consider
```

$\mathrm{X}=\mathrm{Hal}$ in (C12).
C12a) Bill talked about Hal to X.

```
?* bil sìlə-hal lə-ras-u awər-a-u
    Bill about - Hal to-self-3sg talk(perf)--3sg-3Msg
'Bill talked about Hal to himself'
```

| ?* bil sìlə-hal lə- issu | awər-a-u |  |
| :--- | :--- | :--- |
|  | Bill about - Hal | to-he |

    'Bill talked about Hal to him'
    NOTE: It is possible to emphasize to make the sentence grammatical and acceptable.

| OK | bil | stेə-hal | lə- +ssu | lə-ras-u <br> to-self-3sg | lə-hal <br> to-Hal | awər-a-u <br> talk(perf)-3sg-3Msg |
| :---: | :---: | :---: | :--- | :--- | :--- | :--- |

'Bill talked about Hal to Hal himself'
b) Mary talked about X to Hal.
meri sṫlə-ras-u lə-hal awər-a-tftf-u Mary about-self-3sg to-Hal talk(perf)-3sg-3Fsg-3Msg
'Mary talked about himself to Hal'

| ?* |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | 'Mary talked about him to Hal' |  |  |  |

NOTE : w is an assimilated form of $-u$ and $\dot{\dagger}$ is an epenthetic vowel. It is possible to say grammatical and acceptable sentences like the following .
OK meri sitə-issu lə-hal lə-ras-u awər-atftf-iw

Mary about-he o-Hal to-self-3sg talk(perf)-3sg 'Mary talked about him to Hal himself'
c) Mary talked to Hal about X

| OK | meri | lə- hal | silə- ras-u | awər-a-ttt-u |
| :--- | :--- | :--- | :--- | :--- |
|  | Mary | to- Hal | about-self-3sg | talk(perf)-3sg-3Fsg- |

3Msg ' Mary talked to Hal about himself'


Mary to- he about-Hal talk(perf)- 3sg-3Fsg-3Msg
NOTE: It is possible to say the following.

| meri | sìlə - issu | lə- ras-u | lə - Hal | awər-a-t $f t f-u$ |
| :--- | :--- | :--- | :--- | :--- |
| Mary | about-he | to-self-3sg | to-Hal I | talk(perf)-3sg-3Fsg- |

3Msg
'Mary talked about him to Hal himself'
Note: awor-a-t $5 t 5$-u is the form in deep structure. The pronunciation is awər-a$t \mathrm{tt}-\dot{+} \mathrm{w}$, which shows the assimilation of $u$ to $w$ and the insertion of $\dot{\dagger}$
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) Nick telephoned X's mother.
?* nik lə-ras-u innat silk dəwwəl-ə Nick to-self-3sg mother telephone ring(perf)-3sg 'Nick rang telephone to his own mother'
?* nik lə- ̇̀ssu tnnat sitk dəwwəl-ə Nick to-he mother telephone ring(perf)-3sg 'Nick rang telephone to his mother'

OK nik lə- ̇̀nnat -u sìlk dəwwəl-ə
Nick to-mother-3Msg:poss telephone ring(perf)-3sg
'Nick rang telephone to his mother'
b) Nick combed X's hair.

OK nik jə-ras-u -n s'əgur abət't'ər-ə
Nick poss-self-3sg-acc hair comb(perf)-3sg
'Nick combed his hair'
? nik jə- +ंssu-n s'əgur abət't'ər-ə
Nick poss-he-acc hair comb(perf)-3sg
'Nick combed his hair'
OK nik jə- ̇̇ssu-n jə- ras-u -n s'əgur abət't'ər-ə Nick poss-he-acc poss-self-3sg-acc hair comb(perf)-3sg 'Nick combed his own hair'

NOTE: The most straightforward way to say this is the following
OK nik s'əgur-u-n abot't'ər-ə

Nick hair-3Msg:poss-acc comb(perf)-3sg
'Nick combed his hair'
c) Nick spoke to X's boss.

OK

| nik | k $2-r a s-u$ |
| :--- | :--- |
| Nick | with-self-3sg |

alək'a -gar tə-nəgagər-ə
boss -with Ref-speak speak(perf)-3sg
'Nick spoke to his boss'
OK nik jə-ras-u-n alək'a a-nəgagər-ə
Nick with-self-3sg-acc boss cause -speak speak(perf)-3sg
'Nick spoke to his boss’
? nik kə-̇ंssu alək'a -gar tə-nəgagər-ə
Nick with-he
boss -with Ref-speak speak(perf)-3sg
'Nick spoke to his boss'
OK nik jə- ̇̇ssu-n alək'a a-nəgagər-ə
Nick with-he-acc boss cause -speak speak(perf)-3sg
'Nick spoke to his boss'
NOTE: The simplest and the straight forward way to say all this is the following.
OK nik alək'a-u-n a-nəgagər-ə
Nick boss -3Mssg:poss-acc cause -speak speak(perf)-3sg 'Nick spoke to his boss'
d) Nick put X's book on the table.

OK nik jə-ras-u -n məs'haf t'ərəp'p'eza-u laj as-k'əmmət'-ə
Nick poss-self-3sg-acc book table-det on cause-put(perf)-3sg
'Nick put his book on the table'
OK nik jə-̇̇ssu-n məs'haf t'ərəp'p'eza-u laj as-k'əmmət'-ə Nick poss-he-acc book table-det on cause-put-
3sg
'Nick put his book on the table'
OK nik jə- issu-n jə-ras-u -n məs'haf t'ərəp'p'eza-u laj as-k'əmmət'-ə
Nick poss-he-acc poss-self-3sg-acc book table-det on cause-put-(perf)-3sg
'Nick put his own book on the table’
The most straight forward way to say the sentence is

e) The king gave Nick a prize in X's village.

OK
king-det to- Nick in-self-village prize
'The king gave Nick a prize in his village"
Ok nígus-u lə-nik bə- ṫssu məndər Sł̀lmat sat't'-ə-u
king-det to- Nick in-he village prize give(perf)-3sg-3Msg
'The king gave Nick a prize in his village"
OK

| nigus-u la- nik | be- issu | -u | məndər Sillmat | -u |
| :---: | :---: | :---: | :---: | :---: |
| king-det to- Nick | in-he | in self-3Msg:poss | village prize | ive(perf)-3sg-3Msg |
| 'The king gave Nick a prize in his own |  |  |  |  |

The most straight forward way to say it

| OK | nigus-u | le- nik | -u | Sillmat | set't'-ə-u |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | king-det | to- Nick | in-village-3Msg: poss | prize | give(perf)-3sg-3Msg |

'The king gave Nick a prize in his village"
e) The boys washed X's face.
? Itdz-otftf-u jə-ras-atftf-əu-n fit at't'əb-u
child-plu-3pl poss-self-plu-3pl-acc face wash-3pl
'The children washed their face'
? lidz-otftf-u jə- innəssu -n
child-plu-3pl poss- they -acc
fit at't'əb-u
'The children washed their face'
Ok lids-ot 5 tf-u fit-atft $5-ə u-n \quad a t$ 't'əb -u
child-plu-3pl face-plu-3pl-acc wash-3pl
'The children washed their face'
The most acceptable one is with a reflexive marker.

| Ok | lids-otft 5 -u | fit-attt-əu-n | t-at't'əb |
| :---: | :---: | :---: | :---: |
|  | child-plu-3pl | face-plu-3pl-acc | Ref- wash-3p |
|  | e childre | washed their fac |  |

C14a) Nick's father admires X.

jə-nik abbat ras-u-n j-adənk'-all
poss-Nick father self-3sg-acc Imperf-admire-be
'Nick's father admires himself'
b) Nick's ambition jealousy destroyed X. NOTE: ambition takes a phrase to translate.

OK

| jə- nik | k'ṫnat | ras-u-n | at't'əf-a-u |
| :--- | :--- | :--- | :--- |
| Poss- Nick | jealousy | self-3sg-acc | destroy(perf)-3sg-3Msg |
| 'Nick's ambition destroyed himself' |  |  |  |


| OK | jə- nik | k'inat | issu-n | at't'əf-a-u |
| :--- | :--- | :--- | :--- | :--- |
|  | Poss- Nick | jealousy | he -acc | destroy(perf)- 3sg-3Msg |
|  | 'Nick's ambition destroyed himself' |  |  |  |



OK nik-in k'tnat-u at't'əf-a-u
Nick-acc jealousy-poss:3sg destroy(perf)- 3sg-3Msg
'Nick's ambition destroyed him'
c) Nick's mother sold X's car.

OK jə-nik innat jə-ras-u-n məkina $\int ⿰ t^{\prime}$ t't-ə-tft $5-u$ Poss- Nick mother poss-self-3sg-acc car sell(Perf)-3sg-3Fsg-3Msg 'Nick's mother sold his car'
OK jə-nik tinnat jə- tssu-n məkina Sət't'-ə-tftf-u Poss- Nick mother poss-he-acc car sell(Perf)-3sg-3Fsg-3Msg 'Nick's mother sold his car'
OK jə-nik innat jə- tंssu-n jə-ras-u-n məkina $\int ə t^{\prime} t t^{\prime}-\partial-t f t f-u$ Poss- Nick mother poss-he-acc poss-self-3sg-acc car sell(Perf)-3sg-3Fsg-3Msg 'Nick's mother sold his car'

## Note: $\int \partial t^{\prime} t^{\prime}-\partial-t f t \int-u$ is in the deep structure. The surface form (pronunciation) is $\int \partial t^{\prime} t^{\prime}-\partial-t 5 t-+\mathbf{w}$

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

X20a) The boys saw pictures of themselves/each other/them
OK lidz-otftf-u jə-ras-at $\int$ tf-əu-n foto
child -plu-det poss-self-3pl-acc
'The children saw pictures of their own'
OK lids-otftf-u jo-jjə-ras-atftf-əu-n foto ajj-u child-plu-det poss-poss-self-3pl-acc picture see(perf)-3pl 'The children saw pictures of their own' (Each boy saw his own picture)

? lids-otftf-u and-u lə-lela-u foto-atftf-əu-n as-ajj-u
child -plu-det one-detto-another-det picture-pl-3pl-acc cause-see(perf)-3pl
'The children saw pictures of one another' (Each boy showed his picture to the other boy)

OK lidz-otftf-u jə- innəs-u-n foto ajj-u
child -plu-det poss-they-3pl:poss-acct picture see(perf)-3pl
'The children saw pictures of themselves' (It may be each boy saw his own or all boys saw the picture they have in group or all bays saw all pictures of the boys displayed)

OK lids-otftf-u foto-atftf-əu-n ajj-u
child-plu-det picture-pl-3pl-acc see(perf)-3pl
'The children saw pictures of themselves'
b) Mary told the boys about pictures of themselves/each other/them

OK
meri ləids-otftf-u silə ras-atftf-əu foto nəggər-ə-tftf-atftf-əu Mary to-child-plu-det about self-plu-3plu picture tell(perf)-3sg-3Fsg-pl-3pl 'Mary told the boys about pictures of their own'

OK
meri ləids-otftf-u silə- ̇nnəsu foto nəggər-ə-tft-atftf-əu
Mary to-child-plu-det about- they picture tell(perf)-3sg-3Fsg-pl-3pl
'Mary told the boys about pictures of themselves'
OK meri laids-otftf-u silo- innəsu silo ras-atft-əu foto nəggər-ə-tftf-atftf-əu
Mary to-child-plu-det about- they about self-plu-3pl picture tell(perf)-3sg-3Fsg-pl-3pl
'Mary told the boys about pictures of themselves'
OK meri sitə foto-atftf-əu nəggər-ə-tft-atftf-əu
Mary about picture -pl-3pl tell(perf)-3sg-3Fsg-pl-3pl
'Mary told the boys about their picture'

## Note: $\partial u$ is pronounced as $\partial w$

c) The politicians planned attacks against each other.

Use of the infinitive form to attack is more familiar in Amharic than the use of the noun form of attack. Thus the interpretation is in the infinitive for.

OK polətikənn-otftf-u and-u lela-u-n lə-mat'k'at ak'k'əd-u
Politician-plu- one-det other-det-acc to-attckplan(perf)-3pl
' The politicians planned to attack one another.' 'The politicians planned to attack each
other.'
OK polətikənn-otttf-u irs bə-rs atfts-u lə-mət'tt'ək'ak'at ak'k'əd-u Politician-plu- self-by-self-one -det to-attack attack plan(perf)-3pl 'The politicians planned to attack each other.'

NOTE: The verb in this sentence shows reduplication and it is considered as a different stem that shows a repeated action done by many people against each other.

| OK |  | lə- mət't'ək'ak'at to-attack attack | ak'k'əd-u plan(perf)-3pl |
| :---: | :---: | :---: | :---: |
| ? | $\begin{aligned} & \text { polatikənn-ot } f t \mathrm{f}-\mathrm{u} \\ & \text { ras atft } f-\mathrm{u}-\mathrm{n} \\ & \text { Plolitician-plu- } \\ & \text { self-by-self-one-det }\end{aligned}$ 'The politicians planned to attack themselves. | lə-mat'kat to-attack | $\text { ff) }-3 p$ |

## NOTE: This sentence is okay but has a different meaning. The interpretation is that all politicians as a group plan to attack themselves or each politician plans to attack himself or herself. It is reflexive.

d) The politicians faked/simulated attacks against themselves/them.

| OK | polətikənл-otfts-u Politician-plu- <br> 'The politicians mad | $\begin{aligned} & \text { irs--bə- rs -atftf-u } \\ & \text { self-by-self-plu -3plu } \\ & \text { de fake attack against } \end{aligned}$ | jə-wufət poss-false h other' | tə-'t'ək'ak' -u Ref-attack(perf)-3pl |
| :---: | :---: | :---: | :---: | :---: |
| $?$ | polatikənn-otftf-u Politician-plu- <br> 'The politicians ma | ras -atftf-u -n self-plu -3plu-acc <br> de fake attack against | jə-wufət poss-false nselves | tə-'t'ək'ak' -u Ref-attack(perf)-3pl |

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

Example: ( $\mathrm{C} 15 \mathrm{a}-\mathrm{c}$ ) 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) Polly was praised by X
b) Polly was helped by $X$
c) Little is known by Polly about $\mathrm{X}(\mathrm{X}=$ Polly $)$
d) The wax melted itself

Like English, Amharic sentences are not acceptable in (C15a and b). (C15c) is not acceptable as well.

| bə | poli | sila | ras-u-a | jə-mi-tt-awwək'-ə-u | tinnif n nıw |
| :---: | :---: | :---: | :---: | :---: | :---: |
| by Polly about self-3sg-3Fsg poss-what-pass-know(Perf)-3sg(subj)-3sg(obj) little be'What is known by Polly about her is little' But this type of sentence is not common in the |  |  |  |  |  |
|  |  |  |  |  |  |
| language. It seems odd. |  |  |  |  |  |


| səm-u | bə ras-u | k'əllət'-ə |
| :--- | :--- | :--- |
| wax-det | by self-3sg | melt(perf)-3sg |

'The wax melted by itself' (It means no intentional activity was performed to make the wax melt. It just melted naturally)

### 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. (Once again, start with a predicate that allows use of the current strategy, if the verb meaning "see" does not). If there is any variation in judgements, provide examples for the entire paradigm. Otherwise, provide a couple of representative examples. However, in some languages, a strategy that works for singulars does not work for plurals (Danish, for example, shows such asymmetries), and in other languages, a strategy that works for third person does not work for first and/or second person.

C16a) I saw X.
b) You saw X. (etc.)

Repeat with the following sentences, or other suitable examples from section 4.1.1.
C17a) I washed X.
b) I hate X .
c) I told John about $\mathrm{X}(\mathrm{X}=$ myself $)$
d) I saw a snake near $X(X=$ myself $)$
e) I am liked by X.
f) I telephoned X's mother ( $\mathrm{X}=$ myself)
g) My father admires $X(X=$ myself $)$

RAS PERSON Strategy: As far as this strategy is concerned, in Amharic C17a,b,c,d are possible. C17e is not acceptable, C17f is possible in a context. C17g is not acceptable. There is no problem with the different person and number paradigms. So I will just use the first person to illustrate the structure.

| OK a | ras-e-n <br> self-1sg-acc <br> 'I washed myself' | at'tə'b-hu <br> wash(perf)-1sg |
| :--- | :--- | ---: |
| OK b | ras-e-n <br> self-1sg-acc | hate(perf)-1sg |
|  | 'I hated myself' |  |

Ok c lə dzon sìlə ras-e nəggər-hu-t
to John about self-1sg tell(perf)-1sg(subj)-3sg(obj)
'I told John about myself.'

| OK d |  |  |  |  |
| ---: | :--- | :--- | :--- | :--- |
| kə | ras-e | at'əgəb | †bab | ajj-əhu |
| from | self- 1 sg | near | snake | see(perf)-1sg |



| $? \mathrm{f}$ | lo | ras-e | tnnat | dəwwal-hu-l-at |
| :--- | :--- | :--- | :--- | :--- |
|  | to | self-1sg | mother | phone(perf)-1sg(subj)3Fsg-benef-3Fsg |

?g abbat-e jə-ras-e-n jnnat j-adənk'-at-all
father-1sg poss-self-1sg-ace mother 3sg-admire(imperf)-3Fsg-be
'My father admires myself's mother' (My father admires my own
mother)

## NOTE: The addition of the personal pronouns before the reflexives improves the acceptability

 and makes the statements in $f$ and $g$ to be normal in speeches that need emphasis of the object.
abbat-e $\quad$ jə-ras-e-n $\quad$ innat $\quad$ j-adənk'-at-all

RAS by RAS strategy: As far as this strategy is concerned, in Amharic C17a,b, are possible. C17ec,d,e,f,g are not totally acceptable. There is no problem with the different person and number paradigms. So I will just use the first person to illustrate the structure.

```
OK a ras-e-n bə-ras-e at'tə'b-hu
    self-1sg-acc by-self-1sg wash(perf)-1sg
    'I washed myself by myself' (I washed by myself)
OK b ras-e-n bə-ras- e t'əlla-hu
    self-1sg-acc by-self-1sg hate(perf)-1sg
    'I hated myself by myself'(Myself hated myself)
```

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) History repeats X
Both strategies possible(ras person and ras by ras)
tarik ras-u-n j-degm-all
history self-3sg-acc 3Msg-repeat(imperf)-be
'History repeats itself'

| tarik | ras-u-n | bə-ras-u | j-dəgm-all |
| :--- | :--- | :--- | :--- |
| history | self-3sg-acc | by-self-3sg | 3Msg-repeat(imperf)-be |
| 'History repeats itself by itself'(History repeats itself) |  |  |  |

b) This type of fish cannibalizes X

Both strategies possible(ras person and ras by ras)

| jə-zih | ajnət-u | asa ras-u-n | j-bal-all |
| :--- | :--- | :--- | :--- |
| poss-this | kind-det(3sg) fish | asa <br> self-3sg-acc | 3Msg-eat(perf)-be |

'This kind of fish eats itself'

| jə-zih | ajnət-u | asa | bə-ras-u | bə-ras-u | j-bəl-all |
| :--- | :--- | :--- | :--- | :--- | :--- |
| poss-this | kind-det(3sg) fish | by-self-3sg | by-self-3sg | 3Msg-eat(perf)-be |  | 'This kind of fish eats itself by itself' (this type of fish eats itself)

c) This machine destroys $X$ (e.g., after you use it)

```
jih ma\intin ras-u-n j-at'\partialf-all
this machine self-3sg-acc 3Msg-destroy(imperf)-be
```

'This type of machine destroys itself'

```
j+h ma\int+n ras-u-n bә-ras-u j-at'\partialf-all
this machine self-3sg-acc by-self-3sg 3Msg-destroy(imperfe)-be
'This type of machine destroys itself by itself'
```

NOTE: The above sentence is most likely to be interpreted in the context of turning itself off(in a positive sense) It is more common Amharic to talk about constructive things in sentences like this. The following is an example
jith masin ras-u-n j-as-nəs-all
this machine self-3sg-acc 3Msg-cause-turon on(imperfe)-be
'This type of machine turns itself on'
jith masin ras-u-n bə-ras-u j-as-nəs-all
this machine self-3sg-acc by-self-3sg 3Msg-cause-turon on(imperfe)-be
'This type of machine turns itself on'
4.1.3.2 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.

No effect in the discussions made in the previous section with the use of subject pronouns insread of the nouns. The same conclusions work.

### 4.1.3.4 Quantifiers

C19a) Every woman saw X.
b) Every child washed X.
c) Every student hates X.
d) Every child saw a snake near X.
e) Every child telephoned X's mother.
f) Every child's father admires X.

The use of distributive quantifiers (every, each) does not change the way the strategies are used in the previous section a lot. (C19 a,b,c,d,e ) are quite acceptable in the ras person strategy. C19 f is not totally acceptable. In the ras by ras strategy only (C19a, b, c) are acceptable and the rest are not. C19a has been done to show the possible constructions.

OK ijjo- and and-u-a set ras-u-a-n ajj-a-tftf
each- one one-3sg-3Fsg woman self-3sg-3Fsg see(perf)-3sg-3Fsg
'Each one woman saw herself'(Every woman saw herself)

OK †jja- and and-u-a set ras-u-a-n bə-ras-u-a ajj-ə-tftf
each- one one-3sg-3Fsg woman self-3sg-3Fsg by-self-3sg-3Fsg see(perf)-3sg-3Fsg 'Each one woman saw herself'(Every woman saw herself)

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

No N isn't translated to Amharic in the way it is used in English. Using No N changes the statement from positive to negative. Thus the verb form also needs to change from positive to negative. Apart from this change, the strategies work in similar circumstances with that of the distributive quantifiers(each, every). The first one has been done to show the possible and acceptable construction.
$\begin{array}{lllll}\text { OK mann-im } & \text { set } & \text { ras-u-a-n } & \text { al-ajj-ə-tftf-im } \\ \text { who- neg } & \text { woman } & \text { self-3sg-3Fsg } & \text { neg-see(perf)-3sg-3Fsg-neg }\end{array}$
'No woman saw herself'(Every woman saw herself)
OK mann-im set ras-u-a-n bə-ras-u-a al-a-tft-im
who- neg woman self-3sg-3Fsg by-self-3sg-3Fsg neg-see(perf)-3sg-3Fsg-neg
'Each one woman saw hersel'(Every woman saw herself)

## NOTE: $\dagger$ in $\ddagger \mathrm{m}$ - is just an epenthetic vowel

4.1.3.5 Questioned antecedents - X is coreferent with the wh-word in all of the following (if C 20 e 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) Who saw X?
b) Who washed $X$ ?
c) Who saw a snake near $X$ ?
d) Who telephoned X's mother?
e) Whose father admires X ?

## RAS-PERSON strategy: C20 a,b,c,d are acceptable. C20e is not acceptable if X=the son(daughter) C 20 e is acceptable if $\mathrm{X}=$ the father

RAS by RAS strategy: C20a, b are acceptable. C20c,d are not acceptable. C20e is not acceptable if $\mathrm{X}=$ the son(daughter) C 20 e is acceptable if $\mathrm{X}=$ the father.

| OK a. | mann ras-u-n | ajj-ə |  |
| :---: | :---: | :---: | :---: |
|  | who self-self-3sg | see(perf)-3sg |  |
|  | 'Who saw himself?' |  |  |
| OKa. | mann ras-u-n | bə- ras-u | ajj-ə |
|  | who self-self-3sg | by- self-3sg | see(imperf)-3sg |
|  | 'Who saw himself by | himself?' |  |

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

C21a) X saw Fred.
b) X saw us. $(\mathrm{X}=$ us)
c) $X$ saw a snake behind Fred.
d) X impressed Fred
e) Bill spoke to $X$ about Fred.
f) Bill told $X$ about Fred
g) X was praised by Fred.
$<\mathrm{ah}) \mathrm{X}$ is liked by you. $(\mathrm{X}=\mathrm{you})$
RAS PERSON strategy: The construction is possible in $a, b, d$, but it is a matter of topicalization. The sov order changes into the osv order to show the topic is the object.

| a. ok | rasu-n <br> self-3sg-acc | (fred ) <br> (Fred) | ajj-ə <br> see(perf)-3sg |
| :--- | :--- | :--- | :--- |
| b. ok | ras-atftf-n -tn <br> self-plu-1pl-acc | ajj-ən <br> see(perf)-3plu |  |



NOTE: This statement confuses the hearer, is not as such acceptable, but nit totally unacceptable.

| g. * | ras-u bə- fred <br> sel-3sg  | by- Fred |
| :--- | :--- | :--- | | tə-məsəggən-ə |
| :--- |
| pass-praise(perf)-3sg |

RAS by RAS strategy: a,b,d acceptable. The rest are not acceptable.


NOTE: This statement( $f$ ) confuses the hearer, and is not as such acceptable, but isn't totally unacceptable.

```
g. * ras-u bə-ras-u bo- fred to-məsəggən-ə
    sel-3sg by-self-3sg by-Fred pass-praise(perf)-3sg
```

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) X telephoned George's mother.

| * | ras-u <br> self-3sg | lo- d3ord3 <br> to George | innat <br> mother |
| :--- | :--- | :--- | :--- | | dəwwal-ə |
| :--- |
| call(perf)-3sg |

b) X's mother wanted to improve George.

Ok jə-ras-u tinnat dzordz-n maffafal fəllig -ə-u nəbbər Poss-self-3sg mother George-acc to inprove want-3-3pl(honorific)(perf) be(past) 'Himself's mother wanted to improve George.'
(His own mother wanted to improve George )
NOTE: The honorific form is optional. The speaker can use the third person feminine singular atft if he or she is older than her(or not obliged to use the polite form). Though the marker is 3 pl , it really shows 1 sg honorific.
c) X's mother worried/impressed George.

| OK | jə- ras-u | tinnat dzords-n | masfa $\mathrm{al}^{\text {al }}$ | as-dəmməm-u-t |
| :---: | :---: | :---: | :---: | :---: |
|  | Poss-self-3sg | mother George-acc | to improve | want-3pl(honorific)(perf) be(past) |

d) Mary told X's mother about George.
? meri lə-ras-u tinnat stlə dzord3 nəggər-ə-tft-at
Meri to-self-3sg mother about George tell-3Fsg(subj)-3sg-3Fsg(obj)
'Mary told himself's mother about George.'
(Mary told hi own mother about George.)
e) A picture of X's mother fell on George.

| OK | jə- ras-u <br> poss-self-3sg | tnnat | foto | dzord3 | laj | waddak'-ə |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | mother | foto | George | on | fall(perf)-3sg |  |

'Himself's mother fell on George.' (His own mother's picture fell on George.)
f) A picture of X's mother pleased George.

| OK | ja- ras-u <br> poss-self-3sg | innat <br> mother | foto | dzord3- $\mathbf{n}$ |
| :--- | :--- | :--- | :--- | :--- | | as-dəssət-ə-u |
| :--- |

NOTE: The RAS by RAS strategy cannot be used to make any acceptable construction like the above ones.

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

The word order in Amharic is SVO. Nevertheless, the word order could be VSO when there is a
need to emphasize the object. ( $\mathrm{C} 22 \mathrm{~b}, \mathrm{c}, \mathrm{e}, \mathrm{f}$ ) would sound OK if the word order is changed.

### 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.
Ras-person strategy: the meaning is clearly that of $(\mathrm{C} 24 \mathrm{e})$. However ( $\mathrm{C} 24 \mathrm{~b}, \mathrm{c}, \mathrm{d}$ ) are possible. $\mathrm{C} 24 \mathrm{a}, \mathrm{f}$ are not possible.

```
set-otftf-u ras-atftf-ə-u-n ji-rad-all-u
woman-plu-(det) self-plu-3-3pl-acc 3pl-help(imperf)-be-3plu
The women help themselves.'
```

Ras-by ras strategy: the meaning is clearly that of (C24e or d). C24b, is also possible, but not (C24a, f).
set-otfts-u ras-atfts-ə-u-n ba- ras-atstf-ə-u ji-rad-all-u
woman-plu-(det) self-plu-3-3pl-acc by-self-plu-3-3pl 3pl-help(imperf)-be-

3plu
'The women help themselves by themselves.'
(The women help themselves.)
( H rs bə-rs) strategy: the interpretation is that of ( C 24 e ). ( C 24 f ) may be possible.
$\begin{array}{lll}\text { set-otftf-u } & \text { +ेrs-bə-̇rs-atftf-a-u } & \text { jit-rədad-all-u } \\ \text { woman-plu-(det) } & \text { self-by-self-plu-3-3pl } & \text { 3pl-help help(imperf)-be-3plu }\end{array}$
'The women help themselves by 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.

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) The women praised X.

| set-otft-u | ras-atft-o-u-n | awəddəs-u |
| :---: | :---: | :---: |
| woman-plu-(det) | self-plu-3-3pl-acc | praise(perf)-3plu |
| The women help th | mselves.' |  |

Interpretation: The interpretation is the women together as a group praised the women together as a group.

$$
\begin{array}{llll}
\text { set-otftf-u } & \text { ras-atftf-ə-u-n } & \text { bə- bras-atftf-ə-u } & \text { awəddas-u } \\
\text { woman-plu-(det) } & \text { self-plu-3-3pl-acc } & \text { by-self-plu-3-3pl } & \text { praise(perf)-3plu }
\end{array}
$$

The women help themselves.'
Interpretation: The interpretation is the women together as a group praised the women together as a group. Also (possible) each woman praised herself.

| set-otft $f-u$ | trs | bə- rs-at $\int t f-\partial-u$ | tə-awdaddas-u |
| :--- | :--- | :--- | :--- |
| woman-plu-(det) | self | by-self-plu-3-3pl-acc | REF-praise praise(perf)-3plu |

The women help themselves.'
Interpretation: It means each woman praised some other woman in the group; or some women in the group praised some other women in the group (one subgroup praising the other). It seems not to mean the women together as a group praised the women together as a group.
b) The women will support X .

| set-otft-u | ras-at $\int t-ə-\mathbf{u - n}$ | j-rəd-all-u |
| :--- | :--- | :--- |
| woman-plu-(det) | self-plu-3-3pl-acc | 3pl-help(imperf)-be-3pl |

'The women support themselves.'
Interpretation: Each woman supports herself; the women together as a group will support the women together as a group.

| set-otft-u | ras-atft-ə-u-n | bo- ras-at $5 t 5-ə-\mathrm{u}$ | j-rad-all-u |
| :---: | :---: | :---: | :---: |
| woman-plu-(det) | -acc | by- self-plu-3-3pl | 3pl-help(imperf)-be-3pl |

'The women will support themselves.'
Interpretation: Each woman supports herself; the women together as a group will support the women together as a group.

| set-otft-u | ̇rs- bə- rs-atft-ə-u | j-rrədad-all-u |
| :--- | :--- | :--- |
| woman-plu-(det)--acc | self-by- self-plu-3-3pl | 3pl-help help (imperf)-be-3pl |

'The women will support themselves.'(The woman will support each other)
Interpretation: It means each woman will support some other woman in the group; or some women in the group will support some other women in the group (one subgroup supporting the other).
c) The women photographed X.
set-otft-u
ras-atftf-a-u-n
foto anəss-u
woman-plu-(det)--acc self-plu-3-3pl-acc
photo take(perf)-3pl
'The women photographed themselves.'

Interpretation: the women together as a group photographed the women as a group. (Doubtful: each woman photographed herself)

$$
\begin{array}{llll}
\text { set-otftf-u } & \text { irs- bə- rs-attty-ə-u } & \text { foto } & \text { anass-u } \\
\text { woman-plu-(det)--acc } & \text { self-by- self-plu-3-3pl } & \text { photo } & \text { take(perf)-3pl }
\end{array}
$$

'The women photographed themselves.'
Interpretation: each woman photographed herself; some women as a subgroup photographed some other women as another subgroup.

| set-otft-u | ras-attty-o-u-n | bə- ras-atft ${ }^{\text {d }}$--u | foto |
| :---: | :---: | :---: | :---: |
| woman-plu-(det)--acc | self-plu-3-3pl-acc | by- self-plu-3-3pl | photo take(perf)-3pl |
| 'The women photog | hed themselves.' |  |  |

Interpretation: the women together as a group photographed the women as a group; each woman photographed herself.
d) The women betrayed X .
$\begin{array}{lll}\text { set-otft-u } & \text { ras-at } 5 t f-\partial-u-n & \text { kədd-u } \\ \text { woman-plu-(det)--acc } & \text { self-plu-3-3pl-acc } & \text { betray(perf)-3pl }\end{array}$
'The women betrayed themselves.'
Interpretation: the women together as a group betrayed the women as a group; (doubtful: ) each woman photographed herself; some women as a subgroup photographed some other women as another subgroup.

| set-otftf-u | ras-atftf-ə-u-n | bə- ras-at $5 t 5-ə-\mathbf{u}$ | kədd-u |
| :--- | :--- | :--- | :--- |
| woman-plu-(det)--acc | self-plu-3-3pl-acc | by- self-plu-3-3pl | betray(perf)-3pl |

'The women betrayed themselves.'
Interpretation: the women together as a group betrayed the women as a group; each woman photographed herself; some women as a subgroup photographed some other women as another subgroup

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?

Ras person strategy allows mainly a reflexive reading and to a less extent reciprocal reading Ras by ras strategy allows mainly reflexive reading and to a less extent reciprocal reading ras by ras 2 (rs by rs) : allows only reciprocal reading

If this strategy can have both reflexive and reciprocal readings, can you think of some predicates in which it is ambiguous? For example, in German, Die Kinderen wassen sich can mean either "the children are washing themselves" or "the children are washing each other." Ambiguity: With verbs like wash there ras person and ras by ras strategy seem to have only reflexive reading. With verbs like help the two strategies in general may be ambiguious though the first interpretation that of a reflexive.
4.1.4.2 Reciprocal readings - Complete this section only if your strategy allows a reciprocal reading (i.e., permits a reading like those in (C24a) or (C24f). If the strategy is ambiguous, make sure to use verbs that allow the reciprocal interpretation.
a) Which of the following verbs can the strategy be applied to?

C26) "meet", "see", "fight", "speak", "hit"

All the verbs can be applied to the ras by ras 2(rs by rs) strategy
Only 'see' can have a reciprocal reading with ras person and ras by ras strategies.'
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?

C27) John met/saw X with Bill (Meaning: "John and Bill met/saw each other.") No!
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) John and Mary praised X.
b) The women praised $X$.

In (C28 a ) The interpretation of the ras person and ras by ras strategy could equally mean either John praised himself and Mary praised herself or both John and Mary as a group praised themselves as a group. The ras by ras 2(rs by rs) has the interpretation of a pure reciprocal reading :John praised Mary and Mary praised John.

In (C28 b) the interpretation of the ras person and ras by ras strategy is mainly that of a reflexive reading: The women as a group praised themselves (as a group). The reading; 'Each woman praised herself' is not a usual way of interpreting the sentences in these strategies. The ras by ras 2(rs by rs) strategy has a pure reciprocal reading: one woman praised the other woman in the group.

Gender does not make any complications.
d) Can the strategy express reciprocity between a subject and an indirect object?

C29a) John and Mary spoke to X.
b) John and Mary met with X.
c) John and Mary gave this book to X.

Only the ras by ras strategy allows the reciprocal reading in the sentences in C29.
a. d弓on inna meri ł̇rs bə-rs-atftf-ə-u tə-nəgaggər-u

John and Mary self-by-self-pl-3-3pl Ref-speak speak(perf)-3pl
'John and Mary spoke to each other.'
b. dzon inna meri +irs bə-rs-atftf-ə-u tə-gənanл-u

John and Mary self-by-self-pl-3-3pl Ref-meet(perf)-3pl 'John and Mary met each other.'

```
C. dzon inna meri jihṫn-n məs'haf \dot{rs}bə-rs-atftf-ə-u tə-sət'at't'-u
    John and Mary this-acc book self-by-self-pl-3-3pl Ref-give give(perf)-3pl
    'John and Mary gave this book to each other.'
```

Note the anaphor can be taken out and still get the same interpretation. The duplicated verb stem shows that the action is reciprocal. Perhaps the prefix to-could be renamed as reciprocal marker instead of a reflexive marker or something that comprises both.

| dzon | inna meri | jithłn-n | məs'haf | tə-sət'at't'-u |
| :--- | :--- | :--- | :--- | :--- |
| John | and $\quad$ Mary | this-acc | book | Ref- give give(perf)-3pl |

'John and Mary gave this 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.

C30) Bill and Mary think that they like X.

| dzon | inna |  | +rs bə-rs-atft-ə-u | †ndə | m-j-waddəd-u | j-assłb-all-u |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| John | and | Mary | self-by-self-pl-3-3pl | comp(as if) | ?(comp)-3pl-like(p | pl-think(perf)-be-3pl |

'John and Mary gave this book to each other.'
I am not sure about the labeling of ində-m in ində- $m-j$-waddəd-u. ində is a complementizer which means 'like' or 'as if' but in this context it appears with -m- whose status I can not explain at the moment.

### 4.2 Cross-clausal binding

Cases of coreference across clause boundaries fall into two major categories: in some cases, the coconstrual strategy permits relations between arguments in different clauses just in case the distance across clauses is determined by a relationship that is in principle local.

### 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) Jack said that X is smart.

| dzak ras-u | gobəz nə-лл | bil-o-all |
| :--- | :--- | :--- |
| Jack self-3sg | smart be-1sg | say(perf)-3msg-be(past) |

'Jack said that himself is smart.' The interpretation is : 'Jack himself said that he is smart.'
b) Jack knows that George likes X.

' Jack knows that Bill said that himself is smart.'
NOTE: The interpretation is "Jack knows that Bill said that he is smart.' where he = Jack.
d) Jack thinks that Lisa knows that Wendy likes X.

'Jack thinks that Lisa knows that Wendy likes himself.'
NOTE: This is also right in the language.
e) Jack thinks that Lisa knows that X likes Alice.
d弓ak ras-u alis-n +̇nddə-mí-ttí-wədd-ə -at
Jack self-3sg-acc Alice Comp-Comp-3fsg-like(perf)-3sg-3msg

Lisa Comp-Comp-3fsg-know (perf) 3msg-think(imperf)-be(past)
'Jack thinks that Lisa knows that himself likes Alice.'
NOTE: This sentence is ambiguous between an emphatic reading ' It is Jack himself that thinks that Lisa knows that he himself likes Alice' and a reflexive reading 'Jack thinks that Lisa knows that He likes Alice.'
f) Sarah told Jack that Lisa loves X.

| sara | lo-dzak | liza | ras-u-n | ̇̇nddə-mł-ttì-wədd-ə -u | nəgger-attt-u |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sara | to- Jack | Lisa | self-3sg-acc | Comp-Comp-3fsg-like(perf)-3sg-3msg | tell(perf)-3fsg-3msg |

Note: This is okay. The sentence would look improved if the anaphor(ras-u-n) is taken out if some emphasis is not required.
g) Sarah told Jack that X loves Wendy.

| sara | la-dzak | ras-u | wendi -n | +nddə-m-j-wədd-at | nəggər-atst-u |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sara | to- John | self-3sg | Wendy-acc | Comp-Comp-3fsg-like(perf)-3fsg | tell(perf)-3fsg-3msg |
| 'Sarah told Jack that himself loves Wendy |  |  |  |  |  |

Note: This is okay. The sentence would look improved if the anaphor(ras-u) is taken out if some emphasis is not required.

Although there is no morphological marking of the distinction in English, sometimes a difference in factivity makes a difference for what we are studying and we want you to consider this difference.

```
    D2a) Jack admitted that Mary loved X.
d3æk meri ras-u-n afk'tr-a-u- +ndə nəbbər amn-o-all
Jack mary self-3sg-acc love-3Fsg-3sg Comp be(past) admit(perf)-3Msg-be(past)
    'Jack admitted that Mary loved himself.'
```

NOTE：This sentence would be more acceptable if there is a definite marker attached to the anaphor．The definite marker，then，will have the effect of making the sentence possess an emphatic eading as in the following sentence．The factivvity case is similar to that of English ．

```
d弓æk meri ras-u-n-u afk'tr-a-u- ində nəbbər amn-o-all
Jack mary self-3sg-acc-Det love-3Fsg-3sg Comp be(past) admit(perf)-3Msg-be(past)
    'Jack admitted that Mary loved him, himself.'
```

b）Jack suspected that Mary loved X．

＇Jack admitted that Mary loved himself．＇
NOTE：This sentence would be more acceptable if there is a definite marker attached to the anaphor．The definite marker，then，will have the effect of making the sentence possess an emphatic reading as in the following sentence．

| dふæk |  | － | nə | t＇rt＇tr－o－all |
| :---: | :---: | :---: | :---: | :---: |
|  | mary self－3sg－acc－Det | love－3Fsg－3sg | Comp be（past） | suspect（perf）－3Msg－ |

＇Jack suspected that Mary loved him，himself．＇
Please also test adjuncts，such as those in（D3），where $\mathrm{X}=$ Jeff．
D3a）Jeff complained about Mary when Ella blamed X

| dsef | meri－n | s－j－ammarrir | ela | ras－u－n | wok＇k＇s－ə－t $5 t 5-\mathrm{u}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Jeff | Mary－acc | Comp－3Msg－complain | Ella | self－3sg－acc | blame（perf）－3sg－3Fsg－ |

＇Jeff complained about Mary when Ella blamed himself＇
This is OK
b）Jeff returned home when／before／after X became tired．

dzef ras－u $\quad$| kə－mədkəm－u | bəfit wədə bet－u | təməlləs－ə |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Jeff | self－3sg | from－tiredness－3sg | before to | house－3sg |
| return－3sg |  |  |  |  |

＇Jeff returned home before himself became tired．
This has an emphatic reading＂Jeff himself returned before he himself became tired．＇
c）When／before／after Mary wrote to X，Jeff returned home．＇

| meri | lə－ras－u | kə－məs＇af－u－a | bəfit | dるef | wədə | bet－u | təməlləs－ə |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mary | to－self－3sg | from－writing－3sg－3Fsg | before | Jeff | to | house－3sg | return－3sg |

Before Mary wrote to himself，Jeff returned home．＇
This is okay in a circumstance where the conversation in question was about Jeff and he is emphasized．
d）Jeff left without Mary seeing X．

| d3ef | meri | ras-u-n | s-a-tt-aggənn-ə-u |
| :--- | :--- | :--- | :---: |
| Jeff | Mary | self-acc | Comp-Neg-3Fsg-meet(imperf)-3Msggo(perf)-3sg |

'Jeff went without Mary meeting him.'
This is not common, but possible in conversations.
e) Mary condemned Jeff without meeting X.

| meri | dsef-n | s-a-tt-aggənл -ə-u | ras-u-n | wok 'k'əs-ə-ttt-itw |
| :---: | :---: | :---: | :---: | :---: |
| Mary | Jeff-acc | Comp-Neg-3Fsg-meet(imperf)-3Msg | self-3sg | condemn-3sg-3Fsg- |
| 3 msg |  |  |  |  |
| 'Mary condemned Jeff without meeting himself' |  |  |  |  |
| This i | not com | but has a possibility of being said. |  |  |

## NOTE: in wək'k'əs-ə-tftf- $\dot{+}$, the underlying form is wək' $k$ 'əs-ə-tti- u.

Please do not forget to test reciprocal strategies in these long distance contexts (adjusting for plural antecedents), but if none of them work, it is not necessary to provide examples for all of them. No reciprocal strategy can work here!

Please also let us know if differences in gender, plurality or person make a difference for which strategy succeeds. For example, if you replace Jack in all of the Jack sentences with first person "I" or second person "you" does the pattern change in any way? If so, we will follow up about this in section 4.4, so set it aside for now.
4.2.1.2 Climbing from tensed complements - This test applies particularly to reflexives in close association with a verb, either as affixes or clitic pronouns, but there are some languages where a form of focus movement can place a more an argument-marked anaphor in a higher clause.

Change the examples in the previous section so that the higher verb is marked (but the sentence still expresses coreference with an argument of the embedded clause). For example, this sort of climbing is possible in French if the clause is of a very minimal type (a "small clause"), as in John se croix intelligent, interpreted as "John believes [himself (to be) intelligent.]"

I am not sure about the climbing here, but the anaphor in (D3e) could come before the adjunct and it gives an emphatic reading.

| meri | d3ef-n | ras-u-n | s-a-tt-aggənn -ə-u | wək' ${ }^{\prime}$ 'əs-ə-t $t$ tf-u |
| :---: | :---: | :---: | :---: | :---: |
| Mary | Jeff-acc | self-3sg | Comp-Neg-3Fsg-meet(imperf)-3Msg | condemn-3sg-3Fsg- |
| 3 msg |  |  |  |  |
| 'Meri condemned Jeff without seeing/meeting him, himself.' |  |  |  |  |
| This | ntence i |  |  |  |

### 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.

For subjunctives, if your language permits them and if your language permits them to have lexical subjects, the tests can probably proceed on the model of tensed clause complements. However, some of these clausal types require some adjustments if they require null subjects. For example, in providing data for infinitives (if your language has infinitives), and where $\mathrm{X}=$ Edgar, we want you to give us a range of examples where the infinitive subject is not controlled by the matrix subject. In other words, the understood subject of the infinitive (the understood giver or talker) should never be Edgar, but Bill (or else we will actually testing just a clausemate strategy instead of a long distance one). Thus in (D4a), for example, Bill is understood to be the one trusting, and we want to test whether or not X could be Edgar, and if so, which form makes the possible (in English, it is the otherwise independent pronoun him).

D4a) Edgar asked Bill to trust X.
b) Edgar asked Bill to give a book to X .
c) Edgar asked Bill to talk to X.
d) Edgar asked Bill to talk about X.
e) Edgar expected Bill to trust X.
f) Edgar ordered Bill to pay X.
g) Edgar ordered Bill to say that $X$ was smart.
h) Edgar ordered Bill to say that Mary loved X.

Personal pronouns and the ras-person strategy could be used.
Pronoun: In a,b,e,f,g, the pronoun( $\ddagger$ ssu )refers to Edgar. In c and d, h the pronoun (issu) refers to either Edgar or Bill, and the referent is known either from context or through a follow up question.
Ras-Agr: In a, c,d,e,g,h ras= either Edgar or Bill (the meaning changes to become an emphatic one when $\mathrm{X}=\mathrm{Bill}$ ). In $\mathrm{b}, \mathrm{f} \quad \mathrm{X}=\mathrm{Edgar}($ people are not expected to give to themselves or to pay to themselves).


| edgar | bil-n $\quad$ ras-u-n | tnd-j-amn-ว-u | t'jijok'-a-u |
| :--- | :--- | :--- | :--- |
| Edgar | Bill-acc self-3sg-acc | Comp-3Msg-believe(imperf)-3sg-3Msg | ask(perf)- |
| 'Edgg-3Msg |  |  |  |

b. edgar bil-n lə-̇̇ssu məs'haf ṫnd-j-sət't'-ə-u t'əjjək'-ə-u Edgar Bill-acc to-he book Comp-3Msg-believe(imperf)-3sg-3Msgask(perf)- 3sg-3Msg 'Edgar asked Bill to give a book to he.' (Edgar asked Bill to give a book to him.)

```
edgar bil-n lə-ras-u məs'haf łnd-j-sət't'-ə-u t'əjjək'-ə-u
Edgar Bill-acc to-self-3sg book Comp-3Msg-believe(imperf)-3sg-3Msgask(perf)- 3sg-3Msg
'Edgar asked Bill to give a book to himself.' (Edgar asked Bill to give a book to hiself.)
```

c.


| edgar | bil-n | ras-u-n | ł̇nd-j-annəgagg'-ə-u | t'əjjək'-ə-u |
| :--- | :--- | :--- | :--- | :--- |
| Edgar | Bill-n | self-3sg-acc | Comp-3Msg-talk(imperf)-3sg-3Msg | ask(perf)- 3 sg-3Msg | 'Edgar asked Bill to talk to himself.'

d. edgar bil-n sílə ذ̇ssu ̇̇nd-j-annəgaggł̀-ə-u t’əjjək'-ə-u Edgar Bill-acc about he Comp-3Msg-talk(imperf)-3sg-3Msg ask(perf)- 3 sg - 3 Msg 'Edgar asked Bill to talk about he.' (Edgar asked Bill to talk about him.)
edgar bil-n ṡ̇lə ras-u ł̇nd-j-annəgaggì-ə-u t'əjjək'-ə-u
Edgar Bill-acc about self-3sg Comp-3Msg-talk(imperf)-3sg-3Msg ask(perf)- $3 \mathrm{sg}-3 \mathrm{Msg}$
'Edgar asked Bill to talk about himself.'
e. edgar bil ṫssu-n Ł̇nd-j-amn-ə-u t'əbbək'-ə

Edgar Bill he-acc Comp-3Msg-believe(imperf)-3sg-3Msg expect(perf)-3sg
'Edgar expected Bill to trust he.' (Edgar expected Bill to trust him.)

| edgar | bil | ras-u-n | †nid-j-amn-ə-u | t'əbbək'-ə |
| :---: | :---: | :---: | :---: | :---: |
| Edgar | Bill | self-3sg-acc | Comp-3Msg-believe(imperf)-3sg-3Msg | expect(perf)- 3 sg |
| 'Edgar expected Bill to trust himself.' |  |  |  |  |

The absence of the accusative marker is due to the nature of the verb expect, t'əbbək', which needs a clausal complement.
f. edgar bil-n lə-̇̇ssu Ł̇nd-j-kəfl-ə-u azzəz-ə-u

Edgar Bill-acc to-he comp-3Msg-believe(imperf)-3sg-3Msg order(perf)- 3 sg - 3 Msg
'Edgar ordered Bill to pay he.' (Edgar ordered Bill to pay him.)

| edgar | bil-n | lə-ras-u | 亡nd-j-kəfl-ə-u |
| :--- | :--- | :--- | :--- |
| Edgar | Bill-acc | to-self-3sg | comp-3Msg-believe(imperf)-3sg-3Msg |$\quad$| azzəz-ə-u |
| :--- |
| order(perf)-3sg-3Msg |

g. edgar bil-n †̀ssu-n gobəz nəbbər †̀nd-j-il-ə-u azzəz-ə-u Edgar Bill-acc he-acc clever be(past) Comp-3Msg-say(imperf)-3sg-3Msg order(perf)-3sg-3Msg 'Edgar ordered Bill to say he is smart.'
edgar bil-n ras-u-n gobəz nəbbər ind-j-il-ə-u azzəz-ə-u

Edgar Bill-acc self-3sg-acc clever be(past) Comp-3Msg-say(imperf)-3sg-3Msg order(perf)-3sg-3Msg 'Edgar ordered Bill to say he is smart.'
h

| edgar bil-n | merri | 亡̇ssu-n | afk'̇r-a-u <br> love(perf)-3sg-3Msg | nəbbər <br> be(past) | ind-j-il <br> Cdgar <br> Comp-3Msg-say(imperf) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| azzəz-ə-u | Mary | he-acc |  |  |  |

'Edgar ordered Bill to say that Mary loved he. ' Edgar ordered Bill to say that Mary loved him'

| edgar | bil-n | merri | ras-u-n | afk'łr-a-u <br> love(perf)-3sg-3Msg | nəbbər <br> be(past) | ind-j-il <br> Comp-3Msg-say(imperf) |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| Bill-acc |  |  |  |  |  |  | Mary | self-3sg-acc |
| :--- | :--- | :--- | :--- |

'Edgar ordered Bill to say that Mary loved himself.,
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.

There is a complementizer indっ-m in Amharic as well. I suspect that -m is an infinitive marker. The infinitive marker in nouns derived from verbs is $-\mathrm{m}(ə)$.

D5a) Edgar expects $X$ to win.

b) Edgar expects Bill to defeat X.

| edgar | bill | -n | †ndə-m-j-a $\iint$ nnif-ə-u | j-t'əbbbik'-all |
| :---: | :---: | :---: | :---: | :---: |
| Edgar | bill | self-3sg-acc | Comp-Comp-3Msg-win(imperf)-3sg-3Msg | 3Msg-expect(perf)- (aux) |
| 'Edgar |  | himself. | (Edgar expected Bill to trust him.) |  |

D6a) Edgar hopes for X to win.

| edgar | ras-u |  |  | təsfa | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Edgar | self-3sg | Comp-Comp-3Msg-win(imperf) | hope | 3 Msg | do(imperf)- 3 sg |
| 'Edga | opes | to win' |  |  |  |
| This ca | also m | g) hope |  |  | ll win.) |

b) Edgar hopes for Bill to defeat X.

| edgar | bill | ras-u-n | †ndz-m-j-affnnif-ə-u | təsfa | j-aderg-all |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Edgar | ill | self-3sg-acc | Comp-Comp-3Msg-win(imperf) | hope | 3Msg-do(imperf)- 3 sg |
| dg |  | han Bill w | win himself' |  |  |

If the coreferent nominal can be a possessive, provide also examples like the following:
D7a) Edgar expects Bill to defeat X's brother.

```
edgar bill jə-ras-u-n wənddłm jndə-m-j-a\int\intnnif j-t'əbb\dot{k}\mp@subsup{k}{}{\prime}-all
Edgar Bill poss-self-3sg-acc brother Comp-Comp-3Msg-win(imperf) 3Msg-expect(perf)- be
'Edgar expected himself's brother to win.'
```

b) Edgar hopes for Bill to defeat X's brother.

| edgar | bill | jə-ras-u-n | wənddim | ̇ndə-m-j-a $\iint n n+f$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Edgar | Bill | poss-self-3sg | brother | Comp-Comp-3Msg-win(imperf) | hope |

j-aderg-all
3Msg-do(imperf)- 3 sg
'Edgar hopes Bill to win himself's brother.' (Edgar hopes Bill to win his brother )
c) Edgar expects X's brother to defeat him.

```
edgar jə-ras-u wənddim ras-u-n Ł̇ndə-m-j-a\int\intnnif-ə-u
Edgar poss-self-3sg brother self-3sg-acc Comp-Comp-3Msg-win(imperf)-3sg-3Msg
j-t'əbb+k'-all
3Msg-expect(perf)- be
'Edgar expects himself's brother to defeat him'(Edgar expects his brother to defeat him).
```

d) Edgar hopes for Bill to defeat X's brother.

| edgar | bill | jə-ras-u-n wənddim | 亡ndə-m-j-a $\iint n n \dot{+}$ |  |
| :--- | :--- | :--- | :--- | :--- |
| Edgar | Bill | poss-self-3sg-acc brother | Comp-Comp-3Msg-win(imperf) | hope |

j-aderg-all
3Msg-do(imperf)- 3 sg
'Edgar hopes Bill to win himself's brother.' (Edgar hopes that Bill win his (Edgar's)brother ) This could also mean that " Edgar hopes Bill to win his(Bill's) brother.)

NOTE: In all the sentences the pronoun $\dot{\text { tssu can replace ras-u whereas the possessive marker }}$ and the accusative marker remain in their position.

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.)

This is not possible.
D5c) Edgar X-expects to win.
d) Edgar X-expects Bill to defeat.

D6c) Edgar X-hopes for to win.
d) Edgar X-hopes for Bill to defeat.

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

The sentences below are not different from the ones in D5a and $b$.
D8a) Tom considers X intelligent.

| tom | ras-u | gobəz | ində hon-ə | j-assib-al |
| :--- | :--- | :--- | :--- | :--- |
| Tom | self-3sg | intelligent | Comp be-3sg | 3Msg-think(Imperf)-be |

‘ Tom thinks himself to be intelligent "
b) Tom considers Mary fond of X.

| tom | meri | ras-u-n | łndə-m-tt-wədd-ə-u | j-assid-al |
| :--- | :--- | :--- | :--- | :--- |
| Tom | Mary | self-3sg-acc | Comp-Comp-3Fsg-like(imperf)-3sg-3Msg | 3Msg-think(Imperf)- |
| be |  |  |  |  |
| 'Tom thinks Mary to like him.' |  |  |  |  |

c) Tom considers Mary angry at X .

| tom | meri | bə- | ras-u | ində-tə-naddəd-ə-ttt |
| :--- | :--- | :--- | :--- | :--- |
| Tom | Mary by- | self- 3 sg | Comp-Comp-Ref-angry(imperf)-3sg-3Msg | j-assib-al |
| think(Imperf)-be |  |  |  |  |
| 'Tom thinks Mary to be angry at himself.' |  |  |  |  |

NOTE: The pronoun $\dot{+} s s u$ can replace ras-u in all the sentences above.
The other strategies(the ras by ras and all the reciprocal strategies do not work here.

### 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.

D9a) That X was late upset Oliver.

| ras-u | m-arfəd-u | olivər-n | a-naddəd-ə-u |
| :--- | :--- | :--- | :--- |
| self-3sg | inf-late-3sg | Oliver-acc | cause-anger-3sg-3Msg |
| 'Himself's coming late angered Oliver.' |  |  |  |


| łssu $\quad$ m-arfəd-u | olivər-n | a-naddəd-ə-u |  |
| :--- | :---: | :--- | :--- |
| he | inf-late-3sg | Oliver-acc | cause-anger- 3 sg-3Msg |
| 'His coming late angered Oliver.' |  |  |  |

NOTE: The interpretation of MISSING is either somebody other than Oliver pr Oliver himself. This would be cleared in a context or a subsequent question for clarification. It is also possible to use the possessive form with the anaphoras, but then the accusative marker will be dropped.

$$
\begin{array}{lcll}
\text { jə-ras-u } & \text { m-arfəd } & \text { olivər-n } & \text { a-naddəd-ə-u } \\
\text { Poss-self-3sg } & \text { inf-late-3sg } & \text { Oliver-acc } & \text { cause-anger-3sg-3Msg } \\
\text { 'Himself's coming late angered } & \text { Oliver.' } &
\end{array}
$$

| jə-̇̇ssu | m-arfəd | olivər-n | a-naddəd-ə-u |
| :--- | :--- | :--- | :--- |
| Poss-he | inf-late-3sg | Oliver-acc | cause-anger-3sg-3Msg |

b) That X was late suggested that Oliver was guilty.

| ras-u | m-arfəd-u olivər | t'ifatənлa | tndə | nəbbər | j-t'ək'um-all |
| :--- | :--- | :--- | :--- | :--- | :--- |
| self-3sg | inf-late-3sg Oliver | guilty | Comp | be(past) | 3Msg-suggest-be(past) |
| 'Himself's coming late suggested that Oliver was guilty.' |  |  |  |  |  |


| ł̇ssu | m-arfəd-u olivər | t'ífatənлa | 亡ndə | nəbbər | j-t'ək'um-all |
| :--- | :--- | :--- | :--- | :--- | :--- |
| he | inf-late-3sg Oliver | guilty | Comp | be(past) | 3Msg-suggest-be(past) |

'His coming late suggested that Oliver was guilty.'
NOTE: The interpretation of MISSING is either somebody other than Oliver pr Oliver himself. This would be cleared in a context or a subsequent question for clarification. It is also possible to use the possessive form with the anaphora, but then the accusative marker will be dropped.
c) That X was late made Oliver look guilty.

| ras-u | m-arfəd-u | olivar | t'̇fatənna | hon-o | †nd-j--t-ajj |
| :--- | :--- | :--- | :--- | :--- | :--- |
| self-3sg | inf-late-3sg | Oliver | guilty | be-3MsgComp-3Msg-pass-see | a-dərrəg---u |
| cause-do(perf)-3sg-3Msg |  |  |  |  |  |


| ¢ssu | m-arfəd-u oliver t'ifatənna | hon-o ind-j-t-ajj | a-dərrag---u |
| :---: | :---: | :---: | :---: |
| he | inf-late-3sg Oliver guilty | be-3 | cause-do(perf)-3sg-3Msg |

'His coming late suggested that Oliver was guilty.'
NOTE: The interpretation of MISSING is either somebody other than Oliver pr Oliver himself.
This would be cleared in a context or a subsequent question for clarification. It is also possible to use the possessive form with the anaphoras , but then the accusative marker will be dropped.
d) That X was late implicated Oliver.

## Section 4.3 Principle C-type effects

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

E1a) He criticized Malik.
b) He said Mariam criticized Malik.
c) He criticized the boy.
d) He said Mariam criticized the boy.

E2a) His mother criticized Malik.
b) His mother said Mariam criticized Malik.
c) His mother criticized the boy.
d) His mother said Mariam criticized the boy.

E3a) 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 AEveryone criticized Malik. Bill criticized Malik, Mary did, and even Malik criticized Malik@, but this is one example of what I mean by a special discourse circumstance).

E4a) 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 the boy criticized the boy.

NOT possible in Amharic as well.
Now consider whether the boy $=\underline{\text { Malik }}$ 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 Malik criticized the boy.
d) The man who liked the boy criticized Malik

NOT possible in Amharic as well.

### 4.4 More on long distance anaphor strategies

Strategies that allow coreference across tensed clause boundaries, but where the marked argument is one that is not a typical pronoun, we will call "long distance anaphor strategies", hereafter, LDA strategies. In some languages a special pronoun of this type is particularly required when referring back to the reported speaker or believer (a logophoric antecedent), as in D10.

D10) John believes he is guilty.
In other words, a language with this strategy would have a special morphological form for he just in case he refers to John (but not if it refers to someone else). We will call this a "logophoric" pronoun strategy, and in some languages, this form of pronoun has only this use..
4.4.1 Position of the antecedent - Long-distance coreference is often constrained in ways that local coreference is not (especially: subject-orientation). Which possible syntactic positions can be occupied by a long-distance antecedent of the current strategy? Construct examples and give judgments where X = Zeke.. In English, the independent pronoun strategy is all that works for these (i.e., where $X=\underline{\text { he }}$ or him).

The strategies used are the ras-person and the independent pronouns. There is no special or logographic pronoun in Amharic. The reading of the anaphors is usually clarified through a subsequent question and answer in such cases.

D11a) Larry told Zeke that Mike does not like X.

| lari | lə zek majk | issu-n | ində -m-a-j-wədd-ə-u | nəgr-o-t-all |
| :--- | :--- | :--- | :--- | :--- |
| Lary to Zeke Mike | he-acc | Comp-Comp -neg-like(imperf)-3sg-3Msg | tell(perf)-3Msg(suj)-3Msg(obg)- |  |
| be(past) |  |  |  |  |
| 'Larry told Zeke that Mike does not like he(him).' |  |  |  |  |


| lari lə zek majk | ras-u-n | 亡ndə-m-a-j-wədd-ə-u | nəgr-o-t-all |  |
| :--- | :--- | :--- | :--- | :--- |
| Lary to Zeke Mike | self-3sg-acc | Comp-Comp-neg-like(imperf)-3sg-3Msg | Cell(perf)-3Msg(suj)- <br> 3Msg(obg)-be(past) |  |
| 'Larry told Zeke that Mike does not like he(him).' |  |  |  |  |

b) Zeke told Larry that Mike does not like X.

| zek | lə lari | majk | ras-u-n | 亡ndə -m-a-j-wədd-ə-u | nəgr-o-t-all |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Zeke | to Lary | Mike | self-3sg-acc | Comp -Comp -neg-like(imperf)-3sg-3Msg | tell(perf)-3Msg(suj)-3Msg(obg)-be(past) | 'Larry told Zeke that Mike does not like he(him).'

c) Zeke told Larry that X does not like Mike.


| zek | 12 lari | ras-u | majk -n | †̇ndə -m-a-j-wədd-ə-u | nəgr-o-t-all |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Zeke | to Lary | self-3sg | Mike- acc | Comp -Comp -ne | 3sg-3Msg tell( |

be(past)
'Larry told Zeke that Mike does not like himself(him).'
d) Larry told Zeke that X does not like Mike.

| lari | lə zek +̇ssu | majk -n +ndə -m-a-j-wədd-ə-u | nəgr-o-t-all |
| :---: | :---: | :---: | :---: |
| Lary e | to Zek he | Mike- acc Comp -Comp -ne | 3sg-3Msg tell(perf)-3Msg(suj)-3Msg(obg)-be(past) |
| 'Larr | ld Zeke th | Mike does not like he(him). |  |

lari lə zek ras-u majk -n Ł̇ndə -m-a-j-wədd-ə-u nəgr-o-t-all

Lary e to Zek self-3sg Mike- acc Comp-Comp-neg-like(imperf)-3sg-3Msg tell(perf)-3Msg(suj)-3Msg(obg)-be(past)
'Larry told Zeke that Mike does not like he(him).'
e) Larry knows that Zeke thinks that Mike does not like X.
lari zek majk +̇ssu-n índə -m-a-j-wədd-ə-u jində-m-j-assib j-awk'-all
Lary Zek Mike he-acc Comp-Comp -neg-like(imperf)-3sg-3Msg Comp-Comp-3Msg-think(imperf) 3Msg-know(perf)-be(past) 'Larry knows that Zeke thinks that Mike does not like he(him).'
lari zek majk ras-u -n ində -m-a-j-wədd-ə-u jində -m-j-assíb j-awk’-all
Lary Zek Mike self-3sg -acc Comp -Comp -neg-like(imperf)-3sg-3Msg Comp-Comp-3Msg-think(imperf) 3Msg-know(perf)-be(past)
'Larry knows that Zeke thinks that Mike does not like he(him).'
f) Zeke knows that Larry thinks that Mike does not like X.

Zeke Lary Mike he-acc Comp -Comp-neg-like(imperf)-3sg-3Msg Comp-Comp-3Msg-think(imperf) 3Msg-know(perf)-be(past) 'Larry knows that Zeke thinks that Mike does not like he(him).'
zek lari majk ras-u -n ṫndə-m-a-j-wədd-ə-u j̇ndə-m-j-asstb j-awk'-all
Zeke Lary Mike self-3sg-acc Comp-Comp-neg-like(imperf)-3sg-3Msg Comp-Comp-3Msg-think(imperf) 3Msg-know(perf)be(past)
'Larry knows that Zeke thinks that Mike does not like he(him).'
D12a) Zeke's mother thinks that Mike does not like X .

Poss-Zeke mother Mike he-acc Comp-Comp -neg-like(imperf)-3sg-3Msg 3Fsg-think(imperf)-be(past)-3sg-3Fsg
'Zek's mother thinks that that Mike does not like he(him).'
jə - zek +̇nnat majk ras-u-n +̇ndə-m-a-j-wədd-ə-u t-assib-all-ə-tft
Poss-Zeke mother Mike self-3sg-acc Comp-Comp -neg-like(imperf)-3sg-3Msg 3Fsg--think(imperf)-be(past)-3sg-3Fsg 'Zek's mother thinks that that Mike does not like himself(him).'
b) Zeke's mother thinks that X does not like Mike.
jə-zek +̇nnat +̇ssu majk-n +̇ndə-m-a-j-wədd-ə-u t-assib-all-ə-tftf Poss-Zeke mother he Mike -acc Comp-Comp-neg-like(imperf)-3sg-3Msg 3Fsg-think(imperf)-be(past)-3sg-3Fsg 'Zek's mother thinks that that he does not like Mike.'
jə-zek +nnat ras-u majk-n +̇ndə-m-a-j-wədd-ə-u t-assib-all-ə-tfts
Poss-Zeke mother self-3sg Mike-acc Comp-Comp-neg-like(imperf)-3sg-3Msg 3Fsg--think(imperf)-be(past)-3sg-3Fsg 'Zek's mother thinks that that he doe not like Mike.'
c) Zeke thinks that Mike does not like $X$.

| zek | majk | 亡̇ssu-n | 亡̇ndə-m-a-j-wədd-ə-u | j-assitb-all |
| :--- | :---: | :---: | :---: | :--- |
| Zeke | Mike | he-acc | Comp-Comp -neg-like(imperf)-3sg-3Msg | 3Msg--think(imperf)-be(past) |

'Zek thinks that that Mike does not like he(him).'
zek majk ras-u -n ̇̇ndə-m-a-j-wədd-ə-u j-ass+b-all
Zeke Mike self-3sg -acc Comp-Comp-neg-like(imperf)-3sg-3Msg 3Msg--think(imperf)-be(past)
'Zek thinks that that Mike does not like himself(him).'

## d) Zeke's letter said that Mike does not like X.

jə-zek dəbdabbe majk ł̇ssu-n †̀ndə -m-a-j-wədd-ə-u tə-nagr-o-all Poss-Zek letter Mike he-acc Comp-Comp-neg-like(imperf)-3sg-3Msg Ref-tell-3Msg-be(past) 'Zeke's letter said that Mike does not like he(him).'

```
jə-zek dəbdabbe majk ras-u-n \dot{ndə-m-a-j-wədd-ə-u tə-nagr-o-all}
Poss-Zek letter Mike self-3sg-acc Comp-Comp-neg-like(imperf)-3sg-3Msg Ref-tell-3Msg-be(past)
'Zeke's letter said that Mike does not like himself (him).'
```

e) Zeke heard that Mary did not like X.

```
zek meri +ssu -n +̇ndə -m-a-t-wədd-\partial-u səmm-to-all
```

Zeke Mary he -acc Comp-Comp -neg-like(imperf)-3sg-3Msg hear-3Msg-be(past)
'Zek heard that that Mary does not like he(him).'
zek meri ras-u-n †̀ndə-m-a-t-wədd-ə-u səmm-to-all
Zeke Mary self-3sg -acc Comp-Comp -neg-like(imperf)-3sg-3Msg hear-3Msg-be(past)
'Zek heard that that Mary does not like himself(him).'
f) Zeke was told that Mary did not like X. (if your language permits passive)
zek meri $\ddagger$ ¢ssu -n $\ddagger$ ndə -m-a-t-wədd-ə-u tə-nəgr-o-t-all
Zeke Mary he -acc Comp-Comp -neg-like(imperf)-3sg-3Msg Pass-tell-hear-3Msg(Subj)-\#Msg(Obj)-be(past)
'Zek was told that that Mary does not like he(him).'

```
zek meri ras-u -n \dot{ndə -m-a-t-wədd-\partial-u tə-nəgr-o-t-all}
Zeke Mary self-3sg -acc Comp-Comp -neg-like(imperf)-3sg-3Msg Pass-tell-hear-3Msg(Subj)-#Msg(Obj)-be(past)
Pass-tell-hear-3Msg(Subj)-\#Msg(Obj)-be(past)
```

'Zek was told that that Mary does not like he(him).' 'Zek was told that that Mary does not like he(him).'

D13a) Zeke said that X had dressed X .

| zek issu | ras-u-n | ində- aləbbəs-ə | tə-nagr-o-all |
| :--- | :--- | :--- | :--- |
| Zeke he | self-3sg-acc | Comp- dress-3sg | Ref-tell(perf)-3msg-be(past) |

'Zeke told that he (had) dressed himself.'

| tssu | -n | ras-u | †ndə- aləbbəs-ə | tz-nagr-o-all |
| :---: | :---: | :---: | :---: | :---: |
| Zeke he | self-3sg-acc | by-self-3sg | Comp- dress-3sg | Ref-tell(perf)-3ms |

'Zeke told that he (had) dressed himself by himself.'
Note that the ras- by- ras strategy is more effective for D13 a, b,c.
b) Zeke said that X had wounded X.
zek tissu ras-u-n ində- ak’ossəl-ə tə-nagr-o-all
Zeke he self-3sg-acc Comp- wound-3sg Ref-tell(perf)-3msg-be(past)
'Zeke told that he (had) wounded himself.'

'Zeke told that he (had) wounded himself by himself.'
c) Zeke said that X had tattooed X .

| zek issu | ras-u-n | ində- nək'k'əs-ə | tə-nagr-o-all |
| :--- | :--- | :--- | :--- | :--- |
| Zeke he | self- 3 sg-acc | Comp- tatoo-3sg | Ref-tell(perf)-3msg-be(past) |
| 'Zeke told that he (had) tatoo himself.' |  |  |  |


| zek issu | ras-u-n | bə-ras-u | ində- nək'k'əs-ə | tə-nagr-o-all |
| :--- | :--- | :--- | :---: | :---: |
| Zeke he | self-3sg-acc | by-self-3sg | Comp- tatoo-3sg | Ref-tell(perf)-3msg-be(past) |
| 'Zeke told that he (had) tattooed himself by 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 = $\underline{\text { him }}$ ).

### 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.
a1) Larry told me that Mike does not like me.

| lari | lə †ne | majk | +ne-n | tndə -m-a-j-wədd-ə-n | nəgr-o-nn-all |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lary | to I | Mike | he-acc | Comp -Comp -neg-like(imperf)-3sg-1sg | tell(perf)-3Msg(suj)-1sg(obg)-be(past) |

'Larry told me that Mike does not like me.'
a2) Larry told you that Mike does not like you.

| lari | lə antə majk | antə -n †̀ndə -m-a-j-wədd-i¢ | nəgr-o-h-all |
| :---: | :---: | :---: | :---: |
| Lary | to you Mike | he-acc Comp-Comp -neg-like(imperf)-2Msg | tell(perf)-3Msg(suj)-2Msg(obg)-be(past) |
| 'La | ld you (Ms) | that Mike does not like you(Msg) |  |

a2) Larry told you that Mike does not like you.

| lari | lo ant 5 ti | majk | antstfi -n | +ndə -m-a-j-wədd-i¢ |
| :---: | :---: | :---: | :---: | :---: |
| Lary | to you(Fsg) | Mike | he-acc | Comp -Comp -neg-like(imperf)-2Fsg |

'Larry told you (Msg) that Mike does not like you(Msg).'
This is just an example. It is possible to use the first and second person pronouns in the other sentences as well.

## For First Person (for D13 only)

D13a) I said that I had dressed myself.

| Łne | ras-e-n | ində-aləbbəs-hu |
| :--- | :--- | :---: |$\quad$ tə-nagr-e-all-əhu

̇̇ne ras-e-n bə-ras-e ̇̇ndə-aləbbəs-hu tə-nagr-e-all-əhu
'I said that I had dressed myself by myself.'
b) I said that I had wounded myself.

| †ne ras-e-n | +ndə- ak'ossəl- hu | tə-nagr-e-all-əhu |  |
| :--- | :--- | :--- | :--- |
| I | self-1sg-acc | Comp- wound-1sg | Ref-tell(perf)-1sg-be(past)-1sg |
| 'I said that I (had) wounded myself.' |  |  |  |


c) I said that I had tattooed myself.

| tne | ras-e-n | ində- | nək'k'əs-hu |
| :--- | :--- | :--- | :--- | tə-nagr-e-all-əhu

'I said that I (had) tattooed myself.'

| tne | ras-e-n | bə-ras-e | ində- | nək'k'əs-hu |
| :--- | :--- | :--- | :--- | :--- | tə-nagr-e-all-əhu

'I said that I (had) tattooed myself by myself.'

| †ne | ras-e-n | ində-aləbbəs-hu |
| ---: | :--- | :--- |$\quad$| tə-nagr-e-all-əhu |
| :---: |
| I |
| self-1sg-acc |
| Comp-dress-1sg |$\quad$ Ref-tell(perf)-1sg-be(past)-1sg

'I said that I (had) dressed myself.'

| Łne | ras-e-n | bə-ras-e | Ł̇ndə-aləbbəs-hu | tə-nagr-e-all-əhu |
| :--- | :--- | :--- | :--- | ---: |
| I | self-1sg-acc | by-self-1sg | Comp-dress-1sg | Ref-tell(perf)-1sg-be(past)-1sg |

'I said that I had dressed myself by myself.'
b) I said that I had wounded myself.

| Łne $\quad$ ras-e-n | Łndə- ak'ossəl- hu | tə-nagr-e-all-əhu |
| :--- | :--- | :--- |
| I self-1sg-acc | Comp- wound-1sg | Ref-tell(perf)-1sg-be(past)-1sg |
| 'I said that I (had) wounded myself.' |  |  |


c) I said that I had tattooed myself.

| ine | ras-e-n | Ł̀ndə- nək'k'əs-hu | tə-nagr-e-all-əhu |
| :--- | :--- | :--- | :--- |
| I | self-1sg-acc | Comp- tatoo-1sg | Ref-tell(perf)-1sg-be(past)-1sg |

'I said that I (had) tattooed myself.'
†ne ras-e-n bə-ras-e Ł̇ndə- nək'k'əs-hu tə-nagr-e-all-əhu

I self-1sg-acc by-self-1sg Comp- tatoo-1sg Ref-tell(perf)-1sg-be(past)-1sg
'I said that I (had) tattooed myself by myself.'

## For Second Person (for D13 only)

D13a) You said that you had dressed yourself.

```
antə ras-h-n ində-aləbbəs-h
you(M) self-2Msg-acc
Comp-dress-2Msg
```

```
tə-nagr-əh-all
```

tə-nagr-əh-all
Ref-tell(perf)-2Msg-be(past)

```
    Ref-tell(perf)-2Msg-be(past)
```

'You said that you had dressed yourself.'

```
antə ras-h-n bə-ras-h \dot{ndə-aləbbəs-h tə-nagr-əh-all}
you(M) self-2Msg-acc by-self- 2Msg Comp-dress-2Msg Ref-tell(perf)-2Msg-be(past)
```

'You said that you had dressed yourself by yourself.'

```
antfi ras-\int-n ində-aləbbəs-\int tə-nagr-ə\int-all
you(F) self-2Fsg-acc Comp-dress-2Fsg Ref-tell(perf)-2Fsg-be(past)
'You(F) said that you had dressed yourself(F).'
antSi ras-\int-n bə-ras-\int \dot{ndə-aləbbəs-\int tə-nagr-ə\int-all}
you(F) self-2Msg-acc by-self- 2Fsg Comp-dress-2Fsg Ref-tell(perf)-2Fsg-be(past)
'You(F) said that you had dressed yourself by yourself (F).'
```

b) You said that you had wounded yourself.
antə ras-h-n +ndə- ak'ossəl-h tə-nagr-əh-all
you(M) self-2Msg-acc Comp- wound-2Msg Ref-tell(perf)-2Msg-be(past)-1sg
'You said that you had wounded yourself.'

```
antə ras-h-n bə-ras-h ində- ak'ossəl-h tə-nagr-əh-all
you(M) self-2Msg-acc by-self- 2Msg Comp- wound-2Msg Ref-tell(perf)-2Msg-be(past)-
1sg
'You said that you(M) had wounded yourself by yourself(M).'
```

ant $\int \mathrm{i}$ ras- $\int-\mathrm{n}$ +ndə- ak'ossəl- $\int$ tə-nagr-əJ-all
you(F) self-2Fsg-acc Comp- wound-2Fsg Ref-tell(perf)-2Fsg-be(past)
'You(F) said that you had wounded yourself(F).'
ant 5 i ras- $\int-\mathrm{n}$ bə-ras- $\int$ ł̀ndə- ak’ossəl- $\int$ tə-nagr-əJ-all
you(F) self-2Fsg-acc by-self- 2Fsg Comp- wound-2Fsg Ref-tell(perf)-2Fsg-be(past)
'You(F) said that you had wounded yourself by yourself (F).'
c) You said that you had tattooed yourself.
antə ras-h-n ṫndə- nək'k'əs-h tə-nagr-əh-all
I self-1sg-acc Comp- tatoo-2Msg Ref-tell(perf)-2Msg-be(past)
'You said that you had tattooed yourself'

```
antə ras-h-n bə-ras-h ində- nək'k'\partials-h tə-nagr-əh-all
I self-1sg-acc by-self-2Msg Comp- tatoo-2Msg Ref-tell(perf)-2Msg-be(past)
'You said that you(M) had tattooed yourself by yourself(M)'
```

```
antfi ras-\int-n ində- nək'k'\partials-\int tə-nagr-ə\int-all
I self-1sg-acc Comp-dress-1sg Ref-tell(perf)-2Fsg-be(past)
'You said that you (F) had tattooed yourself by yourself(F)'
```

```
antSi ras-\int-n bə-ras-\int \dot{ndə- nək'k'əs-\int tə-nagr-ə\int-all}
I self-1sg-acc by-self- 2Fsg Comp-dress-2Fsg Ref-tell(perf)-2Fsg-be(past)
'You said that you (F) had tattooed yourself by yourself (F)'
```

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". Report all examples that differ in acceptability from the examples you have already provided for those paradigms. If there are no differences, just provide a few representative examples.

There is no difference with 'every child', or 'no child'. If b+̇zu-lidz-otfts 'many children' is used, there is a change in the agreement, and therefore, there will be no ambiguity in who asked who to trust.

## Every Child


t'əjjək'-ə-u
ask(perf) 3sg-3Msg
'Every child asked Bill to trust he.' (Every child asked Bill to trust him.)
him= Any child or bill
†jjə andd andd-u lidる bil-n ras-u-n $\ddagger$ nd-j-amn-ə-u
Distr one one -3 sg Child Bill-acc self-3sg-acc Comp-3Msg-believe(imperf)-3sg3Msg
t'əjjək'-ə-u
ask(perf)- $3 \mathrm{sg}-3 \mathrm{Msg}$
'One child asked Bill to trust himself.'(himself= Any child or bill)

## Many children

## A. when the one to be trusted is either Bill or somebody else than

## Bill(a third person not stated)

```
b\dot{zu lids -otftf bil-n +̇ssu-n +̇nd-j-amn-ə-u}
many child -plu Bill-acc he-acc Comp-3Msg-believe(imperf)-3sg-3Msg
t'əjjək'-ə-u
ask(perf) 3sg-3Msg
```

'Many children asked Bill to trust he.' (Many children asked Bill to trust him.) him= Any child or bill
b+zu lids -otftf bil-n ras-u-n $\dot{\text { tnd }} \mathrm{j}$-amn-ə-u
many child -plu Child Bill-acc self-3sg-acc Comp-3Msg-believe(imperf)-3sg-3Msg
t'əjjək'-ə-u
ask(perf)- $3 \mathrm{sg}-3 \mathrm{Msg}$
'One child asked Bill to trust himself.' (himself= Any child or bill)

## B. When the children ask Bill to trust them

bizzu lids-otft bil-n innəssu-n ind-j-amn-atftf-ə-u
many child -plu Bill-acc they-acc Comp-3Msg-believe(imperf)-plu-3sg-3plu
t'əjjək'-u-t
ask(perf) 3pl-3sg
'Many children asked Bill to trust they.' (Many children asked Bill to trust them.)
Note: in rare cases, in the sentence above, it is also possible for they to refer to third person plural(that is not mentioned ion the sentence).

```
b+zu lid} -otftf bil-n ras-atftS - әu-n +̇nd-j-amn-atftf-ə-u
many child -plu Bill-acc self-plu-3sg-acc Comp-3Msg-believe(imperf)-plu-3sg-3plu
```

t'əjjək'- u-t
ask(perf)- 3pl-3sg
'Many children asked Bill to trust them.'
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, $\mathrm{X}=$ 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 talked about Harriet to X. Not possible in Amharic

## b) Ozzie talked about X to Harriet.

oze kə- haret -gar silə +̇nnəs-u awər-u
Ozzie with Harriet with about they-3-3pl talk(perf)-3plu
'Ozzie talked about they to Harriet.'(Ozzie talked about them to Harriet.)
note: they most of the time refers to other 3plu than Ozzie and Harriet
oze kə- haret -gar sł̇lə ras-atftf-ə-u awər-u
Ozzie with Harriet with about self-plu-3-3pl talk(perf)-3plu
'Ozzie talked about themselves to Harriet.'
OK: this is the form selected at all times.
c) Ozzie told Harriet that X should leave.
oze lə- haret innəsu mə-hed ində-allə-b-atttf-ə-u nəggər-ətftf-at
Ozzie to Harriet they Inf-go(perf) Comp-must-malf-plu-3-plu tell(perf)-3Fsg(subj)-3FSG(obj)
'Ozzie told Harriet that they should go'
Note: they= Harriet and Ozzie or other third person plural.

'Ozzie told Harriet that themselves should go'
Note: most of the time themselves=Harriet and Ozzie, but sometimes when Harriet and Ozzie have been discussing about other people, themselves= other tird person plural)
d) Ozzie told Harriet that Bill dislikes X.
oze lə- haret bil +̇nnəsu-n ində-m- a- j-wədd-atftf-ə-u nəggər-ətftf-at Ozzie to Harriet Bill they-acc Comp-must-benef-plu-3-plu talk(perf)-3plu 'Ozzie told Harriet that Bill dislikes(doesn't like) they.'(Ozzie told Harriet that Bill dislikes(doesn't like) them.

Note: they=Ozzie and Harriet or Other third person plural
oze lə- haret bil ras- atftf-ə-u -n
at
atndə-m- a- j-wədd-atftf-ə-u
Ozzie to nəggər-ətft
3plu
'Ozzie told
Harriet Bill self-pl-3-pl-acc
dislikes(doesn't like) them.

Note: most of the time themselves=Harriet and Ozzie, but sometimes when Harriet and Ozzie have been discussing about other people, themselves= other tird person plural)
e) Ozzie said that Harriet thinks that Bill dislikes X.

'Ozzie said that Harriet thinks that Bill dislikes they.' (Ozzie said that Harriet thinks that Bill dislikes them.)
oze haret bil ras- atftf-ə-u -n ində-m- a- j-wədd-atftf-ə-u
Ozzie HarrietBill self-pl-3-pl-acc Comp-must-benef-plu-3-plu

$$
\begin{array}{ll}
\text { t-assib-all-ə-t } 5 \mathrm{t} & \text { al- --ttt } \\
\text { 3Fsg-think(perf)-3-3Fsg } & \text { say-3-3Fsg }
\end{array}
$$

'Ozzie said that Harriet thinks that Bill dislikes themselves.' (Ozzie said that Harriet thinks that Bill dislikes them.)
4.4.2.4 Discourse antecedents - Suppose that in the following scenarios we are being told what was going on in Mark's mind.

D15) Mark feared that his son was not safe. He was ashamed that he could not protect his closest relative. What would his cousins think of him?
pronoun startegy
mark jə-ł̇su líd3 dəhna ajdəll-ə-m jihon bł̇lo fərr-a. Mark poss-he child safe not-3sg-not if say fear(perf)-3sg 'Mark feared that his son was not safe.'
jə-ł̇su-n jə-k’ł̀rb zəməd-u m-adan b-alə-mə-tfal-u affər -ə
poss-he-acc poss-close relative-3sg inf-save Comp-malf-not-inf-able-3sg ashame(perf)3sg
'He was ashamed that he could not protect his closest relative.'
jə-ł̇su zamd-otfts m+n j-ill-u-t jihon
poss-he relative-pl what 3-say (imperf)-3pl-3sg be
'What would his cousins say to him?'
ras-person strategy
mark jə-ras-u lidł dəhna ajdəll-ə-m jihon bł̀lo fərr-a.
Mark poss-self-3sg child safe not-3sg-not if say fear(perf)-3sg
'Mark feared that his son was not safe.'
jə-ras-u-n jə-k’̇̇b zəməd m-adan b-alə-mə-tfal-u affər-ə
poss-self-3sg poss-close relative inf-save Comp-not-inf-able-3sg ashame(perf)-3sg
'He was ashamed that he could not protect his closest relative.'
jə-ras-u-n zamd-otft min j-ill-u-t jihon
poss-self-3sg relative-pl what 3 sg-say (imperf)-3pl-3sg be
'What would himself's cousins say to him?'(What would his own relatives think of him.)
Note; I am not sure on the labeling of b- as complementizer. Its meaning can roughly translated as because I do this. Eg b-alə-mə-t $\int$ al-u 'because he was not able to'

Note: Leaving the anaphors out and using person suffixes that show possession would be more acceptable and common in the above translations.

D16) Mark was shocked to see his picture in the paper. All of his supporters would abandon him. How would he tell his mother?
pronoun strategy

| mark | jə-̇̇su-n | foto | gaze'ta | laj | ajt-o | dənəggət' -ə |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| mark | poss-he-acc | picture | newspaper | on | see-3Msg | shock(perf)-3Sg |

'Mark saw his picture in the paper and was shocked.'
$\begin{array}{lll}\text { jə-isu } & \text { daggafi-ot } t \int & \text { hulu }\end{array}$ j-təw-u-t-all $\quad$ supporter-plu all $\begin{array}{ll}\text { 3pl-abandon(imperf)-3pl-3sg-be }\end{array}$
'All of his supporters will abandon him.'

| lo-isu | ̇nnat | †nddet bilo | j- nəgr-at-all |
| :--- | :--- | :--- | :--- |
| to- he | mother | how say | 3sg-tell(imperf)-3Fsg-be |
| 'How would he tell to he(his) | mother?' |  |  |

## ras-person strategy

| mark | jə-ras-u-n | foto | gaze'ta | laj | ajt-o | dənəggət' -ə |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| mark | poss-self-3sg-acc | picture | newspaper | on | see-3Msg | shock(perf)-3Sg |

'Mark saw himself's(his own) picture in the paper and was shocked.'

```
jə-ras-u dəggafi-otft\int hulu j-təw-u-t-all
poss-self-3sg supporter-plu all 3pl-abandon(imperf)-3pl-3sg-be
'All of himself's(his own) supporters will abandon him.'
```

| lo-ras-u | łnnat | Łnddet bilo | j- nəgr-at-all |
| :--- | :--- | :--- | :--- |
| poss-self-3sg | mother | how say | 3sg-tell(imperf)-3Fsg-be | 'How would he tell to himself's(his own) mother?'

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

D17) Morris said it was a difficult day for Mark. First, Morris told him that his car had been stolen. Then he had to hire a taxi to take him to work. Morris

## thought he might be angry.

pronoun strategy

| moris | k'ən-u | lə- mark $\quad$ kəbad | nəbbər | al-ə |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Morris | day-det | to- Mark | difficult | be(past) | say(perf)-3sg |
| 'Morris said it was a difficult day for Mark.' |  |  |  |  |  |


| məd3əmmərija | moris lə-mark | jə-̇̇su | məkina inddə-tə-sərrək'-ə |
| :--- | :--- | :--- | :---: |
| first | Morris to- Mark | poss-he | car comp-pass- |

steal(perf)-3sg
nəggr-ə-u.
tell(perf)-3sg(subj)-3Msg(obj)
'First, Morris told him that his car had been stolen.'
kəzija ł̇su †̇su-n wədə sł̇ra bota lə-m-adrəs taksi mə-kkərajət nəbbər-ə-bb-ət then he he-acc to work place to-inf-take taxi inf-hire(perf) be(past)-3sg-malf-3Msg 'Then he had to hire a taxi to take him to work.'
moris jisu ji-nnaddəd jihon-all b+1-o assəb-ə
morris he 3sg-get angered(perf) may-be say-3Msg think-3sg
Morris thought he might be angry.

## ras-person strategy

| moris | k'ən-u | lə- mark $\quad$ kəbad | nəbbər |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Morris | day-det | to- Mark | difficult | be(past) | say(perf)-3sg |

'Morris said it was a difficult day for Mark.'

| mədzəmmərija | moris lə-mark | jə-̇isu | məkina inddə-tə-sərrək'-ə |
| :--- | :--- | :--- | :--- |
| first | Morris to- Mark | poss-he | car comp-pass- |
| steal(perf)-3sg |  |  |  |
|  |  |  |  |
| nəggr-ə-u. |  |  |  |
| tell(perf)-3sg(subj)-3Msg(obj) |  |  |  |

'First, Morris told him that his car had been stolen.'
$\begin{array}{lllccccccccc}\text { kəzija } & \text { ras-u } & \text { ras-u-n } & \text { wədə sira } & \text { bota } & \text { lə-m-adrəs } & \text { taksi } & \text { mə-kkərajət } & \text { nəbbər-ə-bb-ət } \\ \text { then } & \text { self-3sg } & \text { self-3sg-acc } & \text { to } & \text { work } & \text { place } & \text { to-inf-take } & & \text { taxi } & \text { inf-hire(perf) } & \text { be(past)-3sg-malf- }\end{array}$ 3 Msg
'Then he had to hire a taxi to take him to work.'
This is not a common way of saying it. If this happens in conversation, there will be a a lot of questions aimed at clarifying who took who to work!

| moris ras-u | ji-nnaddəd | jihon-all may-be | bil-o | assəb-ə |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| morris self-3sg | 3 sg -get angered(perf) |  |  | say-3Msg | think- |
| 3 sg |  |  |  |  |  |
| Morris thought | If (he) might be angry | Okay)! |  |  |  |

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: Look, there's Mark!
B: He is so handsome.
A: I would not want to be his wife though. All the women are chasing him.
B: Also, I think he praises himself too much.
It is not different.

### 4.4.3 Blocking Effects

The agreement features of nominals intervening between an anaphor and its antecedent can sometimes affect the grammaticality of coconstrual in some languages.
4.4.3.1 Features of intervening subjects - The following examples test for an intervening subject that is mismatched for person, gender, or number. Construct more examples if you suspect that other feature combinations are relevant in your language. In each case in (D19), $\mathrm{X}=$ Larry, unless designated otherwise. If the only successful strategy permitted here is the independent pronoun strategy, then please indicate this.

Both strategies work.
D19a) Larry thinks that John respects X.

| lari | ds | ̇̇su-n | ində-m-j-akəbir-ə- | j- asstb-all3Msg-think(perf)-be |
| :---: | :---: | :---: | :---: | :---: |
| Lary | John | he-acc | comp-comp-3Msg-re |  |
| 'Larry thinks that John respects he(him).' |  |  |  |  |
|  |  |  |  |  |

lari dzon ras-u-n ində-m-j-akəbir-ə-u j- assib-all
Lary John self-3sg-acc comp-comp-3Msg respect (perf)-3sg(subj)-3Msg(obj) 3 Msg-think(perf)-be
'Larry thinks that John respects himself.'
$\dot{\text { tissu }}=$ most of the time Larry but sometimes another third person whom the speaker was talking about.
b) Larry thinks that I respect X.


```
Lary I he-acc comp-comp-respect (perf0-3Msg(obj) 3Msg-think(perf)-be
'Larry thinks that I respect he(him).'
̀tsu = Larry or another third person whom I was talking about.
```


c) Larry thinks that Mary respects $X$.

| lari | mery | +̇ssu-n ində-m-t-akəb+̇r-əu | j- assib-all |
| :--- | :--- | :--- | :--- |
| Lary | Mary | he-acc | comp-comp-3Fsg-respect (perf)-3Msg(obj) |$\quad$ 3Msg-think(perf)-be 'Larry thinks that Mary respects he(him).'

$\dot{\text { tissu }}=$ Larry or another third person whom the speaker was talking about.

| lari | meri | ras-u-n | ində-m-t- akəḃ̈r-ə-u | j- assib-all |
| :--- | :--- | :--- | :--- | :--- |
| Lary | Mary | self-3sg-acc | comp-comp-respect (perf)-3Msg(obj) | 3Msg-think(perf)-be |

'Larry thinks that Mary respects himself(him).'
$\dot{+} \mathrm{ssu}=$ most of the time Larry but sometimes another third person whom the speaker was talking about.
d) Larry thinks that the boys respect X .
lari lidz-otftf-u íssu-n ində-m-j-akəbir-u-t j-assib-all
Lary child-plu-det he-acc comp-comp-3plu-respect (perf)-3plu(subj)-3plu(Obj) 3Msg-think(perf)-be 'Larry thinks that the children respects he(him).'
$\dot{\text { tssu }}=$ Larry or another third person whom the speaker was talking about.
lari lidz-otftf-u ras-u-n ində-m-j-akəbir-u-t j-assib-all
Lary child-plu-det self-3sg-acc comp-comp-3plu-respect (perf)-3plu(subj)-3plu(Obj) 3Msg-think(perf)-be 'Larry thinks that the children respects he(him).' $\dot{\mathrm{t} s s u}=$ most of the time Larry but sometimes another third person whom the speaker was talking about.
e) The men think that the boys respect X . $(\mathrm{X}=$ the men $)$

| səw- otft $f$-u |
| :--- |
| man-plu-det |


| lidd-otftf-u |
| :--- |
| child-plu-det | | innəssu-n |
| :--- |
| they-acc |$\quad$| ində-m-j-akəb+ir-u-atftf-əu |
| :--- |
| comp-comp-3plu-respect (perf)-3plu(subj)- plu-3plu(Obj) |

'The men think that the boys respect them.' ̇nnəssu $=$ the men or peolple whom the speaker was talking about.

'The men think that the boys respect themselves (them).'
$\dot{+} s s u=$ most of the time the men but sometimes other people whom the speaker was talking about.

Same tests, with the intervening subject in an intermediate clause:
D20a) Larry thinks that Bill knows that Dave respects X.
b) Larry thinks that I know that Dave respects X.
c) Larry thinks that Mary knows that Dave respects X.
d) Larry thinks that the boys know that Dave respects X.
e) The men think that the boys know that Dave respects. (the men $=X$ )

This is also similar. The change is just the presence of two complementizers. Look at the following.
D20a) Larry thinks that Bill knows that Dave respects X.

```
lari bill dave \dot{ssu-n ində-m-j-akəb\dot{r-ə-u}}\mathbf{~}\mathrm{ - }
Lari Bil Dave he-acc comp-comp-3Msg-respect (perf0-3sg(subj)-3Msg(obj)
ində-m-j-auk' j- ass+b-all
comp-comp-3Msg-respect (perf0 3Msg-think(perf)-be
```

'Larry thinks that Bill knows that Dave respects him.' $\dot{\text { tssu }}=$ Lary most of the time

```
lari bill dave ras-u-n ində-m-j-akəb+r-ə-u
Lari Bil Dave self-3sg-acc comp-comp-3Msg-respect (perf0-3sg(subj)-3Msg(obj)
ində-m-j-auk` j- ass\dot{+b}-all
comp-comp-3Msg-respect (perf0 3Msg-think(perf)-be
```

'Larry thinks that Bill knows that Dave respects himself(him).'
ras-u = Lary most of the time
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 $\mathrm{X}=$ Walter). If you also found number or gender mismatches above, give some examples.

D21a) Walter thinks that Bill told Harry that Dave respects X.
Pronoun strategy
waltər bil lə- hari dev ł̇ssu-n Ł̇ndə-m-j-akəbr-ə-u
Walter Bill to Harry Dave he -acc comp-comp-3Msg-respect(perf)-3sg-3Msg

| nəgr-o-t-all | bil-o | j-assib-all |
| :--- | :--- | :--- |
| tell-3Msg(subj)-3sg(obj)-be | say-3Msg | 3Msg-think(perf)-be |

'Walter thinks that Bill told Harry that Dave respects he (him).'
Note: ł̇ssu= bill, Harry, Walter or any other third person

| Ras-person strategy |  |  |  |
| :--- | :--- | :--- | :--- |
| waltər bil lə hari | dev | ras-u-n | ində-m-j-akəbr-ə-u |
| Walter Bill to Harry | Dave | self-3sg-acc <br> comp-comp-3Msg-respect(perf)-3sg-3Msg |  |
|  |  | b+1-o | j-ass+b-all |

'Walter thinks that Bill told Harry that Dave respects himself (him).'
Note: ras-u= bill, Harry, Walter or any other third person
NOTE: the PP(lə hari) can also come after tində-m-j-akəbr-ə-u in both sentences.
b) Walter thinks that Bill told me that Dave respects X .

Pronoun strategy

Walter Bill to I Dave he-acc comp-comp-3Msg-respect(perf)-3sg-3Msg
$\begin{array}{lll}\text { nəgr-o-nл-all } & \text { b户̇l-o } & \text { j-assíb-all } \\ \text { tell-3Msg(subj)-1sg(obj)-be } & \text { say-3Msg } & \text { 3Msg-think(perf)-be }\end{array}$
'Walter thinks that Bill told me that Dave respects he (him).'
Note: +̇ssu= bill, Harry, Walter or any other third person

## Ras-person strategy

wəltər bil lə +̇nne dev ras-u-n +̇ndə-m-j-akəbr-ə-u
Walter Bill to I Dave self-3sg-acc comp-comp-3Msg-respect(perf)-3sg-3Msg
nəgr-o-nл-all bil-o j-assib-all
tell-3Msg(subj)-Isg(obj)-be say-3Msg 3Msg-think(perf)-be
'Walter thinks that Bill told me that Dave respects himself (him).'
Note: ras-u= bill, Harry, Walter or any other third person
c) Walter told me that Dave respects X.

Pronoun strategy
wəltər lə $̇$ ṫne dev +̇ssu-n +̇ndə-m-j-akəbr-ə-u

Walter to I Dave he-acc comp-comp-3Msg-respect(perf)-3sg-3Msg
nəgr-o-nл-all
tell-3Msg(subj)-1sg(obj)-be
'Walter told me that Dave respects he (him).'
Note: $\dot{\text { tssu }}=$ Walter or any other third person.

| Ras-person strategy |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| waltor lo | +̇nne | dev | ras-u-n | †̇ndə-m-j-akəbr-ə-u |
| Walter to | I | Dave | self-3sg-acc | comp-comp-3Msg-respect(perf)-3sg-3Msg |

'Walter thinks that Bill told me that Dave respects himself (him).'
Note: ras-u= bill, Harry, walter or any other third person.
d) Walter said that Dave gave me a book about X.

Pronoun strategy
wlater dev lə ṫnne ṣ̀lə t̀ssu jə-m-j-naggər məs'haf Walter Dave to I about I poss-comp-3Msg-tell (perf) book
sat't-o- nn-all b+1-o-all
give(perf)- $3 \mathrm{Msg}($ subj $)-\mathrm{Isg}(\mathrm{obj})$-behe(him),
'Walter said that Dave gave me a book aboiut he (him).'
Note: ṫssu= Walter or Dave or other third person
Ras-person strategy
wlater dev lə ṫnne sìlə ras-u jə-m-j-naggər məs'haf
Walter Dave to I about self-3sg poss-comp-3Msg-tell (perf) book
sat't-o- nn-all b+1-o-all
give(perf)- $3 \mathrm{Msg}($ subj $)-\operatorname{Isg}(\mathrm{obj})$-behe(him),
'Walter said that Dave gave me a book about himself (him).'

## Note: $\mathfrak{t s s u}=$ Walter or Dave or other third person

4.4.4 Islands - Do syntactic islands affect the acceptability of the current strategy? For all the examples in this section, $\mathrm{Ira}=\mathrm{X}$.

D22a) Ira resents the fact that Mary hates X.
Pronoun works well
ira meri +ssu-n mə-t'lat-u-a j-as-t'əlla-u-all
ira Mary he-acc inf-hate-3sg-3Fsg 3Msg-caus-not like-3sg-be
'Ira resents the fact that Mary hates he (him).
ras-person not common and preferable, but possible with some discomfort.

| ira | meri ras-u-n | mə-t'lat-u-a | j-as-t'əlla-u-all |
| :--- | :--- | :--- | :--- |
| ira | Mary self-3sg-acc | inf-hate-3sg-3Fsg | 3Msg-caus-hate-3sg-be |

'Ira resents the fact that Mary hates himself (him).
b) Ira respects the man who likes X .

Pronoun works well
ira j̇ssu-n jə-m-j-wdd-ə-u-n j-akəbr-all
ira he-acc inf-hate-3sg-3Fsg 3Msg-respect(imperf)-be
'Ira respects the man who likes he (him).'

## ras-person works fairly.

| ira | ras-u-n | jə-m-j-wdd-ə-u-n | j-akəbr-all |
| :---: | :---: | :---: | :--- |
| ira | self-3sg-acc | inf-hate-3sg-3Fsg | 3Msg-respect(imperf)-be |

'Ira respects the man who likes he (him).'
c) Ira says that the man who likes X is intelligent.
ira $\mathfrak{\text { ṫssu}}$-n jə-m-j-wədd-ə-u səw gobəznəw j-it-all
Ira he-acc poss-comp-3Msg-like(imperf)-3sg-3Msg man clever be 3Msg-say-be
'Ira says that the man who likes he(him) is intelligent.'
ira ras-u-n jə-m-j-wədd-ə-u səw gobəznəw j-it-all
Ira self-3sg-acc poss-comp-3Msg-like(imperf)-3sg-3Msg man clever be 3Msg-say-be
'Ira says that the man who likes he (him) is intelligent.'
d) Ira asked whether Bill saw $X$.
ira bil +̇ssu-n ajt-o-t †́ndə-nəbbərə t’əjjək'-ə
Ira Bill he-acc see-3sg(Subj)-3sg(Obj ) Comp-be(past) aske(perf)-3sg 'Ira asked whether Bill saw he(him).'
$\begin{array}{lll}\text { ira bil ras-u-n } & \text { ajt-o-t } & \text { tndə-nəbbərə } \quad \text { t'əjjək'-ə } \\ \text { Ira Bill self-3sg-acc } & \text { see- } 3 \operatorname{sg}(\operatorname{Subj})-3 \operatorname{sg}(\mathrm{Obj} & ) \quad \text { Comp-be(past) }\end{array}$ aske(perf)-3sg
'Ira asked whether Bill saw himself (him).'
e) Ira asked when Bill saw X.
ira bil +̇ssu-n mətfe ajt-o-t ṫndə-nəbbərə t'əjjək'-ə
Ira Billhe-acc when see-3sg(Subj)-3sg(Obj ) Comp-be(past) aske(perf)-3sg
'Ira asked when Bill saw he(him).'

```
ira bil ras-u-n mət\inte ajt-o-t ṫndə-nəbbərə t'\partialjjək'-ə
Ira Bill self-3sg-acc see-3sg(Subj)-3sg(Obj ) Comp-be(past)
    aske(perf)-3sg
'Ira asked when Bill saw himself (him).'
```

    f) Ira did not realize that George followed X .
    ira gord3 ṫssu-n tə-kətṫl-o-t +̇ndə-nəbbər al-awək'-ə-m
Ira George he-acc pass-follow(perf)-3sg(subj)-3sg(obj) Comp-be(past) neg-know(perf)-3sg-neg
'Ira did not realize that George followed he(him).'

| ira gord3 | -n | to-kəttil-o-t | +ndə-nəbbər | al-awək'-ə-m |
| :---: | :---: | :---: | :---: | :---: |
| George | elf-3sg-acc | pas | Comp-be(past) | neg-know(perf)-3sg-neg |

'Ira did not realize that George followed he(him).'
g) Ira said that Mary was pretty and that she would marry X.
ira meri k'onjo ində-hon-ətft inna íssu-n
Ira Mary beautiful comp-be-3Fsg and he-acc
$\begin{array}{ll}\text { łndə-m-t-agb-a-u } & \text { to-naggr-o-all } \\ \text { 3Fsg-marry(perf)-3Fsg-1Msg-3Fsg } & \text { ref-say(perf)-3sg-be }\end{array}$
'Ira said that Mary was pretty and that she would marry he (him).'

| ira meri | k’onjo | ində-hon-ətft <br> inna <br> comp-be-3Fsg | ras-u-n <br> Ira |
| :--- | :--- | :--- | :--- |
| self-3sg-acc |  |  |  |

'Ira said that Mary was pretty and that she would marry himself (him).'

### 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 theses 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.

There is no morphological distinction like English. Both the pronoun and the ras-person are used together with a possessive marker.

However, other languages have such a morphological distinction (often it is like the logophoric distinction, discussed above, but not always). For example, Adésolá (2004) reports that Yoruba permits a non-logophoric pronoun (a weak pronoun) to be coconstrued with the matrix subject, but the logophoric marked one (the strong pronoun) is still distinguished insofar as it must be de se. The verb meaning 'believe' selects for the logophoric complementizer pé and the pronouns are distinguished as weak (w) and strong (s).

D24a) Olú gbàgbó pé ilé rè ti wó.
Olu believe that house he(w) ASP fall
b) Olú gbàgbó pé ilé òun ti wó.

Olu believe that house he(s) ASP fall
Both: "Olu believes that his house has collapsed."
As Adésolá remarks, "...a strong pronoun [òun] is used when self-reference is intended by the reported speaker (or believer) [15b], while a weak pronoun [rè] is used when the reported speaker (or believer) does not know that he was in fact referring to his own house [15a]." The weak pronoun does not have to refer to Olu, but the strong one must.

In Amharic, the he strategy used to show that we are talking about the subjects belongings or deeds without any ambiguity is using pronoun and ras-person together (as I mentioned somewhere in the translations) .
Look at the following example.

| olu | jə-issu jə ras-u bet | Ł̇ndə-fərrəs-ə | j-amn-all |
| :--- | :--- | :--- | :--- | :--- |
| Olu | poss-he | poss-self-3sg house comp-collaps(perrf0-3sg | 3Msg-believe(imperf)-be |

"Olu believes that his , his own house has collapsed."

Compare this with just

| olu | jə-íssu | bet | Łndə-fərrəs-ə |
| :--- | :--- | :--- | :--- |
| Olu | poss-he |  | house comp-collaps(perrf0-3sg | "Olu believes that his house has collapsed."

or
olu jə-ras-u bet +̇ndə-fərrəs-ə j-amn-all
Olu poss-self-3sg house comp-collaps(perrf0-3sg 3Msg-believe(imperf)-be
"Olu believes that his own house has collapsed."
The difference is just the degree: in the first one there is no possibility that the huse belongs to somebody other than Olo. In the second and thir sentences, however, the hose can belong to some other person other than Olu, and this is because the language is a pro drop. This strategy seems not different form that f English except in the use of the ras-person (himself).


[^0]:    ok = Perfect
    ? $=$ A bit odd, but acceptable
    ?* = Pretty bad

    * = Unacceptable
    ** $=$ Word jumble

