

CiNsenga Anaphora Sketch - Version 1.1

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CiNsenga has an anaphora pattern similar at its core to many other Bantu anaphora systems, though there are some fine details that suggest interesting lines of comparative research. That core consists of four main strategies for representing clausemate anaphora: the *zi* strategy, the null object strategy, the *an* strategy, and the pronoun strategy, and there are two auxiliary strategies, the *mwinozi* and *eka* strategies, that mark emphasis or other restrictions on the anaphorically interpreted argument or on the nature of the event. Another anaphoric strategy is restricted to kinship relations and will be treated in a section that includes related constructions of note, including some constructions where possessor anaphora can be interpreted as possessor raising in some cases, perhaps as applicative in others. Long distance anaphora is achieved by the pronoun strategy.

The *zi* strategy, or Strategy A as it is called in the AQ response (AQR), is the most generally employed strategy to achieve reflexive readings. The *zi* affix is morphologically instantiated by a marker on the verb, one that competes with object markers (for pronominal readings that are not understood reflexively) in the same slot (left adjacent to the verb stem, after subject agreement and tense). Noncanonical objects can become objects when applicative applies (see, for example, AQR A3g, C4b-d) and then the *zi* strategy is used, but if no applicative is possible to promote a prepositional object, then the *zi* strategy is not possible (e.g., AQR C7a-c). The subject is always the antecedent of the reflexive reading when the *zi* strategy is used. The *zi* marker is invariant for all persons and numbers, showing no agreement relation. The nonreflexive object marker varies according to number and person as reported in the grammar sketch. It appears that if the *zi* strategy is available, then it must be the one used, unless the other option is the null object strategy, described below. There are cases where the *zi* strategy is used for the possessor of a direct object - see the section on possessor raising and applicative below.

The null object strategy is lexically restricted to verbs such as those of grooming, for example, or for reciprocals, verbs of conflict, like “fight”. The direct object is missing, there is no object marker on the verb, and no morphology on the verb marks reflexivity. In those cases where the same verb can either use the null object strategy or the *zi* strategy, only the *zi* strategy permits proxy readings (compare AQR 3.8 for null object and *zi* strategies).

The *-an* strategy is used for reciprocal readings. Unlike the reflexive prefix *zi*, the affix *an* is suffixed to the verb stem (preceding a final vowel) and is not inflected for person or number. It cannot cooccur with overt objects or object markers. In cases like AQR A12c,d there appears to be a form of doubling with possessors) and for AQR C29a a reciprocal relation is permitted between the subject and the object of a “with” PP by means of an *an* suffix on the verb, although this relation is not possible if there is an

overt direct object in VP (AQR C29a'). The *eka* strategy can be used with the *-an* strategy to render it emphatic and exclusive (i.e., "and no one else", e.g. AQR 3.1 for the EKA strategy). We expect to explore *-an* in more detail in future follow-up work.

The pronoun strategy. CiNsenga has both affixal and argument position pronouns (see AQR 2.2.2). The object affixal pronouns (object markers) are in complementary distribution with direct objects (but see the *eka*-strategy), but the subject affixes, which are more clearly like agreement morphemes, occur with any sort of overt subject, though independent subject pronouns are typically dropped, as in most pro-drop languages (see AQR 2.2.1). Object markers are normally used for direct pronominalization, not an argument position pronoun. As usual, a pronoun is considered independent if it does not require a sentence-internal antecedent, and in this sense of 'independent' both argument position and affixal pronouns are independent.

The pronoun strategy is used for all non-clausemate anaphora and in some cases of clausemate anaphora. Pronouns cannot be used for an anaphoric reading when the *zi* strategy is possible, which is any case where the dependent argument is the direct object (or is the direct object as a result of applicative morphology). It appears that pronouns are not normally used to refer to a clausemate non-subject either, but this is not impossible (but see AQR A3d,e). Thus the use of pronouns for clausemate anaphora is generally limited to prepositional object position (sometimes with an appropriate clitic-like form, as in AQR C10c), just in cases where the preposition cannot be incorporated into the verb (by a version of the applicative alternation).

Subject pronouns can be argument forms for long distance coreference construals, and object markers are favored for objects coconstructed with a non-clausemate antecedent (see AQR D11). Pronouns allow split antecedents, but not when the antecedents are clausemates. Backwards coreference is generally disfavored in CiNsenga, but it is possible with pronouns, such that a pronoun embedded in a subject can be coconstructed with a direct object it does not c-command, although this is sensitive to predicate type (see the contrasts in AQR C22e,f, and Z22e,f). Principle C works as expected, although the effects may be overdetermined when the antecedent is a pronoun due to limits on backwards coreference.

There is no morphological marking that enforces logophoric or *de se* interpretation in this language - both *de se* and *non-de se* readings use the same independent pronouns, and these pronouns do not require an anaphoric reading with any logophoric antecedent.

The *mwinicozi* strategy appears to be an emphatic form, occurring adjacent to an independent pronoun, or else in the position where an independent pronoun would be (e.g., when the subject is pro-dropped) and its presence appears to make the pronoun a more likely candidate to be construed with an antecedent in the sentence (see AQR A3b,c), but if this is not necessary to retrieve the antecedent (as in 1st person plural), a pronoun can be used alone (AQR A3d). This effect is not limited to clausemates, since the emphatic usage can be used for a complement subject (see AQR Y2 of 3.8 for the *zi* strategy), but apparently not for a complement object (AQR 2.1.4, Y1e). This strategy appears to be more necessary with clausemate arguments that cannot participate in the

zi strategy. *Mwinicozi* cannot achieve a reflexive reading without being associated with a pronoun and it is generally prohibited from attaching to a direct object, even in its emphatic use when attached to a name (AQR 2.1.4, Y1b). In isolation, *mwinicozi* is used to mean “owner”, as in (AQR 2.1.4, Y1f) and certain characteristics of its distribution suggest a parallel with English *own*. See AQR 2.1.4, Y1c for a discussion of its pragmatic force in relation to null argument subjects.

The *eka* strategy, where this means something like “alone” and it occurs with a pronoun that agrees with that of the subject of the clause, and when the null object reflexive strategy is employed there is an agreement morpheme on *eka* that matches the subject. The *eka* strategy must cooccur with either the *zi* strategy, the *an* strategy (see AQR 2.3.2, 4.1.3.1 C18') or the null object strategy, which suggests that it is not quite a reflexive or reciprocal strategy on its own. As it is stated in the AQR,

“The function of *eka* is somewhat subtle when used in combination with Strategy A (as in A7d). As noted, *eka* is optional since Strategy A by itself suffices to express reflexivity. In this particular case, however, *eka* adds an emphatic meaning to the sentence by asserting that the activity in question was not induced (or initiated) by some outside forces. Thus the interpretation of A7d is **that the children out of their own volition help themselves and (also that) they don't help anyone else**. One can envisage a different scenario in which someone advises or instructs the children to help themselves: if the children wind up helping themselves, then the appropriate construction would be one in which *eka* is omitted. Another context in which *eka* would be omitted is where the children help someone else in addition to helping themselves - here *eka* restricts the bounds to which the help was extended.”

The *eka* strategy bounds the participants in the event sharply, and in conjunction with the reflexive it appears that the event did not have any causer other than the antecedent. When it is omitted, as in AQR 2.1.6, 2.3.2, it is possible to understand the event described to have an external cause.

There are instances where *eka* ensures an anaphoric reading (AQR 4.1.1.2, see the variations on C3b). As mentioned in the section below, the *zi* strategy and the null object strategy can be employed to insure anaphoric readings for missing objects of verbs with gestural, grooming interpretations. For these verbs, it is also possible for the verb to be marked by *zi* and then the missing possessor of the overt direct object can be understood as possessed by the subject. When these verbs are not marked by *zi* in this construction, the anaphoric interpretation for the possessor is still possible, but not required. However, the presence of *eka* then ensures an anaphoric reading for the missing possessor.

The *eka* strategy can also insure emphatic readings of pronouns. For example, an object pronoun can be compatible with the presence of an object marker only if the pronoun is accompanied by the *eka* strategy (AQR 2.2.2, Fb).

This is an interesting morpheme that deserves more study. It can also be used to mean “alone” in the more conventional sense, “without accompaniment” or “just x and no more” (see also the comment in AQR 2.3.2). Notice that for AQR C18, inanimate subjects with reflexive readings require *eka*, and this may be because the volition of

agents is missing (stressing that the event is not externally caused). Another interesting feature of *eka* is that examples that permit proxy readings with the *zi* strategy cannot support the proxy reading with the *eka* strategy (see AQR 3.8 for the *eka* strategy).

Some interesting constructions

Possessor raising and/or applicative - Cases like AQR A15c,d where there is a possessor raising interpretation are interesting and deserves more study. In such cases, the complementarity between objects and the *zi* reflexive marker breaks down, presumably because the direct object is not being treated as a direct object, because applicative affixation has 'made' a new direct object, or because the possessum has the status as an adjunct on the "real" direct object. Also, reflexivity of an inalienably possessed body part is more typically expressed by the 'null possessor' strategy, which in this case would mean a null possessor and no morphology on the verb for an object (i.e., the possessum behaves as an object). If, however, the possessor of the direct object is not an inalienable one, as in AQR A15d, then the *zi* strategy must be used. It is not possible for possessor raising to be achieved with a non-anaphoric object marker (i.e., an object affixal pronoun), so the question of how apparent possessor raising interpretations arise is strictly for cases where the interpretation of the possessor is anaphoric to the subject. The status of the possessum as an argument of the verb is not clear in these cases, since it is not treated as a direct object, which led Simango (1995) to treat it as an adjunct on an object and not as an applicative construction (see also AQR C13'a and C13bi where an object marker can correspond to the body part, or even alienable part/whole relations as in C13'b, and an apparently extraneous direct object appears to function as an adjunct). Notice also with the kinship anaphor "X's mother" as the apparent object, the *zi* marker is not possible (as in AQR X3a of section 4) unless the anaphoric argument appears to be the object of an applicative structure AQR X3b, such that the 'possessor' argument has an emphatic reading similar to a promoted-to-object benefactive.

Kinship anaphora - The CiNsenga locution "X's mother" and "X's father" behave somewhat like anaphors, in that they respect some locality conditions. These terms are somewhat lexicalized: "My mother", "your mother", and "his mother" are rendered, *amama*, *anyoko*, and *anyina*, respectively, while "my father", "your (singular) father", and "his father" are rendered *atata*, *awuso*, and *awisi*, respectively. The third person form is used for all plurals, but then the kinship term is accompanied by a pronoun or name and does not have to be locally anaphoric (see AQR 4.0, X3d). There are no specialized anaphoric terms for other kinship relationships. As shown in 4.1.2.6 local kinship anaphora is unambiguously bound by its local antecedent, a nonlocal antecedent is not possible, unless as in AQR C13a" the possessive morpheme is introduced, in which case there is ambiguity, even to a third person retrievable from the discourse context, though a local interpretation is preferred. There are some interesting interactions with the *zi* strategy (see AQR 4.0) where *zi* coexist with a kinship anaphor if the verb bears an applicative marker (as above). Thus while it is accurate to say that wherever "pronoun's mother/father" might be expected to be found there is

morphologically quirky spellout of the sequence “his mother/father”, but the behavior of these forms shows certain locality restrictions reminiscent of anaphoric domains. It would appear that the locality properties of these lexicalized kinship terms deserve more study.

Some Theoretical Issues

There are some theoretical and comparative issues that might be profitably explored based on the CiNsenga pattern. Many Bantu languages employ cognates of the *-an-* and *zi* affixes and some of the clausemate boundary issues can be explored comparatively, concerning, for example, the sorts of prepositions or adjunct arguments that block possessor-raising or the *zi* strategies, on the one hand, and the sorts of prepositions that permit the *-an* prefix to be doubled inside a PP. It may be significant that *an* is a suffix with respect to the verb stem, as are passive, causative and applicative, whereas pronouns are prefixes with respect to the verb stem.

The *eka* strategy suggests that morphemes meaning “alone” might need to be added to the lexical atoms that can be anaphoric atoms (see Safir, 1996, 2004), if the *eka* strategy is local, though clearly not all languages use their “alone” morpheme this way - English and French don’t, for example. The necessity of the *eka* strategy when the antecedent is inanimate is also interesting from the perspective of how thematic roles affect argument structure. Both the *eka* strategy and the *mwinicozi* strategy deserve more study with respect to the relationship between emphatic markers and anaphoric readings (see, for example, Koenig and Siemand, 2000).

The contrast between the behavior of null anaphora and the *zi* and pronoun strategies with respect to proxy readings (see AQR 3.8) is of particular interest (as well as the fact that the presence of *eka* excludes a proxy reading even for the *zi* strategy) and it is explored in a comparative context in Technical Report #1 on this site.

The only locality issues that appear to be of interest here concern clausemate relations and some interactions with grammatical function changing affixes like causative which permit non-coarguments to enter into the *zi* construction. On further study, there may be some interesting locality effects with respect to the *mwinicozi* strategy and kinship anaphora.