

Ikalanga Anaphora Sketch Version 1.1

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At first glance, Ikalanga seems to have what might be called the ‘bare bones’ version of Bantu anaphora, which is to say that, for the most part, only the properties most generally found in the Bantu languages are also found in Ikalanga.

With respect to local anaphora, almost all reflexive interpretation, except for a few verbs that take null objects, is achieved by the reflexive affix in place of the object marker (OM), and all reciprocal readings are achieved by the *-an* suffix. Where the reflexive *-zwi-* affix cannot establish an anaphoric link because the dependent argument cannot be treated (or formed with the use of an applicative affix) as an object, a pronoun merged with a preposition or a pronoun (in an argument position) appears. If *-zwi-* is available to form a reflexive interpretation, the OM cannot be used to establish a reflexive interpretation (*-zwi-* and the OM are in strict complementary distribution when they represent the same argument). Both *-zwi-* and *-an-* are always anteceded by subjects, that is to say, they do not form reflexive or reciprocal relations between arguments when neither one is the subject. It seems generally to be the case that if a prepositional object can be promoted to direct object (i.e., potentially represented by an OM) by applicative formation, then either affix can form an anaphoric relation, but neither affix succeeds when the non-subject position cannot be a direct object (backwards local anaphora is impossible, unless one considers nominalizations, where the reflexive marker appears on the nominalized noun, but the possessor is postverbal, see AQ2.4.2). Neither affix shows any agreement sensitivity - their form is invariant no matter what their subject argument is. When anaphoric relations cannot be formed by affixation, full pronouns appear, but they cannot be interpreted as reciprocals and they do not always permit reflexive interpretations (see below). Full pronouns tend to be contrastive whenever an OM or subject agreement (SA) is an available alternative, but they are normally not contrastive when neither an OM nor SA is available, as in the case of possessive pronouns or prepositional objects.

With respect to long distance anaphora, no special strategy is discernable. Subject and object markers are generally preferred for coconstrual with an argument not in the clause, including previous mentions in discourse, and the use of a full pronoun is contrastive. Principle C effects appear to be in force in a conventional c-command-conditioned way (although distance between a name c-commanding a name seems ameliorative, see, for example, (E4b,d), but with worse results where the full nominals are not identical, compare (E7b)). Backwards anaphora is possible for pronouns where the pronoun does not c-command the antecedent, but also subject to some proximity conditions that need to be explored (see E8a,b). Reciprocal interpretations are generally impossible for long distance relations.

Full pronouns can also be used as emphatic or personal involvement adverbials, much as pronoun-self in English is used (e.g., (F31), amongst many other examples)

There are, however, some small but intriguing wrinkles in this simple but elegant system that raise interesting theoretical and/or analytic questions, and several of them involve phenomena that may or may not be general to Bantu languages.

For example, the reciprocal affix is often taken to be detransitivizing in Bantu languages, which would mean that it is only possible with transitive verbs or prepositional object verbs that have undergone some sort of applicative formation. There are, however, some instances in

Ikalanga where the dependent argument in the reciprocal relation (the non-subject) can be the inalienable possessor of a direct object, as in (A11c) of section 2.3, repeated here.

A11c) The men combed each other's hair.

Balume ba-ka-kam-ana mavudzi
Men₂ SA₂-past-comb-RECIP hair₆

This raises questions about the role of the possessee, since the constructions in question do not involve a verb extension corresponding to possessor raising, and even if possessor raising does take place, the possessee remains the apparent direct object, which would not be expected if the *-an-* affix is really a detransitivizer. Some other notion of coargumenthood could perhaps be appealed to based on complex predicate formation that neutralizes the object, but such a theory would require careful analysis. There do exist examples where what appear to be small clause subjects can be reflexivized or transitivized (see (D8ai) and (D8aai), respectively). One reason to doubt the complex predicate theory (there is another reason developed below), is that better candidates for complex predicate formation exist, such as (A15b), for which the reflexive marker is not necessary or possible (**Paul wa-ka-zwi-milidza liboko*).

A15b) Paul raised his hand. (e.g., in class)

Paul wa-ka-milidza liboko.
Paul_{1a} SA_{1a}-past-raise hand

This means that Paul raised his hand and nobody else's, but a possessor pronoun would be necessary if Paul had raised somebody else's hand, as in (AS1).

AS1) Paul wa-ka-milidza liboko gugwe.

P. SA₁-past-lift hand his/hers

'Paul lifted up his/her hand' (*gugwe* can refer to Paul or to a third party)

There is further data in 2.4.1 on this matter, including (A15ci) which suggests that either the reflexive corresponds to the possessor of the hand directly, or else it is more like English *Paul cut himself on the hand*, where the reflexive corresponds, once again, to a direct object only.

A15ci) Paul cut his hand. (e.g., accidentally)

Paul wa-ka-zwi-cheka mu liboko
Paul_{1a} SA_{1a}-ka-REFLEX-cut on hand₅

There are further questions about the role of the reciprocal marker. As in some other Bantu languages (e.g., Kirundi, as discussed by Ndayiragije, 2006 and Young, 2005), the *-an-* affix can be interpreted as reciprocal even when the subject is singular, a situation that arises where the antecedent would be a plural that the verb cannot easily agree with (those interested in agreement might consult xxx). For example, if we have *The hunter and the lion saw each other*, it is not easy to decide what the verb agreement should be. Ikalanga is among those Bantu languages solve that this problem by using a singular subject with a comitative prepositional phrase 'adding' its number to that of the subject, at least for the purpose of licensing a reciprocal interpretation.

AS2ai) The hunter and the lion saw each other

Mvimi wa-ka-bon-an-a ne shumba.
Hunter₁ SA₁-past-see-RECIP-FV with lion₉
a) *Mvimi ne shumba ba-ka-bon-an-a
hunter₁ and lion₉ SA₂-past-see-RECIP.-FV
b) The lion and the hippopotamus saw each other
Shumba ya-ka-bon-an-a ne vubu.

- bii) Lion₉ SA₉-past-see-RECIP.-FV with hippo₉
 *Shumba ne vubu dza-ka-bon-an-a.
 lion₉ and hippo₉ SA₁₀-past-see-RECIP.-FV
- ci) The lions and the hunters saw each other
 Shumba dza-ka-bon-an-a ne bavimi
 lions₁₀ SA₁₀-past-see-RECIP-FV with hunters₂
- cii) *Shumba ne bavimi ba-ka-bon-an-a.
 lions₁₀ and hunters₂ SA₂-past-see-RECIP-FV
- di) The lions and the hippopotamus saw each other
 Shumba dza-ka-bon-an-a ne vubu.
 Lions₁₀ SA₁₀-past-see-RECIP-FV with hippos₁₀
- dii) *Shumba ne vubu dza-ka-bon-an-a
 lions₁₀ and hippos₁₀ SA₁₀-past-see-RECIP.-FV
- ei) The plant and the book touched each other
 Nti wa-ka-kum-an-a ne buka.
 Tree₃ SA₃-past-touch-RECIP.-FV with book₉
- eii) *Nti ne buka zwa-ka-kum-an-a.
 Tree₃ and book₉ SA₂₁-past-touch-RECIP.FV
- fi) The donkey and the cow knocked each other.
 Donki ya-ka-thul-an-a ne ngombe.
 D₉ SA₉-past-knock-RECIP-FV with cow₉
- fii) *Donki ne ngombe dza-ka-thul-an-a
 D₉ and cow₉ SA₁₀-past-knock-RECIP.-FV

Notice that even if the conjoined subjects share the same noun class, as evidenced by the 'ii.' examples, agreement for the conjunction cannot use the plural noun class associated with either of the conjuncts, as in the unacceptable (AS2fi) where the plural agreement marker for class 9 is class 10 *dza*. This restriction holds even if one of the subjects is human as in (AS2aii), where there is no agreement marker on the verb that suits the different subject NPs. In short, it appears that reciprocals involving non-human entities cannot have plural subjects; they can only be formed via the strategy of separating the two subject NPs as shown in the "i." above. Only when +human subject NPs are conjoined does the language permit plural verb agreement such as in the examples below.

- C27i) Joni wa-ka-shangan-a na Bill.[Note 1]
 John₁ SA₁-past-met-FV with Bill₁
 'John met with Bill.'
- ii) Joni na Bill ba-ka-shangan-a.
 John and Bill SA₂-past-met-FV
 'John and Bill met each other.'
- iii) Joni wa-ka-bon-an-a na Bill
 John₁ SA₁-past-see-RECIP-FV with B₁
 John and Bill saw one another.
- iv) Joni na Bill ba-ka-bon-an-a.
 J₁ and B₁ SA₂-past-see-RECIP.-FV
 John and Bill saw one another.

AS3a) Balume ne bakadzi ba-ka-lob-an-a.
 Men₂ and women₂ SA₂-past-hit-RECIP.-FV
 ‘The men and women hit each other.’

b) Mbisana ne ngwanana ba-ka-ling-an-a.
 Boy₁ and girl₁ SA₂-past-look-RECIP.FV
 ‘The boy and the girl looked at each other.’

These facts could be construed as an interesting challenge to any theory of agreement of anaphors with antecedents that relies on the role of the SA, which is singular in these cases.[Note 1A] Notice that the reciprocal marker does not inflect for noun class and is embedded in the verb stem, so it is possible that the potential for such constructions to arise may be a symptom of a semantic marker that is freed of syntactic agreement requirements.

On the other hand, it is not possible to form reflexives in this way, even though the reflexive marker is also insensitive to noun class.

AS4i) John and the lion laughed at themselves.

**Joni wa-ka-zwi-seka ne shumba.
 J₁SA₁-past-REFLX-laugh with lion₉
 ii) Joni ne shumba ba-ka-zwi-seka.
 J₁ and lion₉ SA₂-past-REFLX-laugh

If (AS4i) is to be interpreted at all, then it means something like *John and the lion both laughed at John*. The lion is excluded as the object of laughter. The use of the reflexive affix in (AS4) contrasts with reciprocal examples like (C27iii), apparently because the comitative phrase does not permit the reflexive affix to express the target meaning of (AS4). It is possible that the availability of (AS4ii) prevents the use of (AS4i) by some sort of obviation or optimization mechanism, but if so, the same calculation does not apply to the reciprocal, which allows both structures for conjoined human subjects. Moreover, it remains mysterious why class 2 agreement should be possible for (AS4ii) (compare (AS2aii)). This is clearly an area that needs more exploration.

These facts raise interesting questions for theories of reflexive and reciprocal predicate formation, such as that of Reinhart and Sioni (2005) and Sioni (to appear), where it is proposed that reflexive and reciprocal predicates that they claim are lexically formed should be thereby distinguished from those that are claimed to be syntactically formed. For example, are the reciprocals lexically formed with possessors for just those predicates that have a gestural interpretation with their objects? If the -zwi- markers are syntactically formed, would they then be expected to fail such predicate formation from a non-object? Is such a distinction between *zwi* and *-an-* appropriate on independent grounds? Or must it be claimed that some instances of these affixes participate in lexical relations and others in syntactic ones?

Questions of lexical vs. syntactic operations have also been a preoccupation of LFG theorists, amongst others, and there are cases where the questions raised above about possessor-raising type interpretations (leaving aside whether or not syntactic or lexical possessor raising is the right analysis) suggest conclusions about the lexical or syntactic role of applicative formation. For example, it is possible to construct cases where applicative formation facilitates a reciprocal possessor-raising interpretation, as in (X3c).

X3c)?John and Bill saw each other's mothers.

Joni na Bill ba-ka-bon-el-an-a bomayi.
 John_{1a} and Bill_{1a} SA_{1a}-past-see-APPL.-RECIP.-FV mothers_{2a}

‘John saw Bill’s mother and Bill saw John’s.’

In such cases, it must either be assumed that if applicative formation is syntactic, then complex predicate formation that permits possessor raising interpretation must be syntactic, since it applies to the output of applicative formation. If, however, it can be argued that complex predicate formation must be lexical, then applicative must be lexical too, by the same reasoning. This example may not be decisive, however, since the inalienable possessor of ‘mother’ does not appear to be predicate sensitive with respect to choice of verb, which suggests that whatever permits possessor raising interpretation is not complex predicate formation in this case at all. If complex predicate formation is not creating the right environment for possessor raising interpretation, then the role of the applicative becomes even more mysterious.[Note 2]

There are also questions that arise for competition-based theories, such as that of Safir (2004), which take complementarity between anaphors and pronouns to be the empirical norm. While it can be argued on the basis of that theory that *-zwi-* outcompetes the OM for the reflexive interpretation and that complementarity between them results, it is also expected that anywhere both the OM and *-zwi-* are unavailable to represent the reflexive reading, a pronoun should suffice, even though it need not be anaphoric to the local subject. While there is data that tends in this direction (A10o,p), there are also cases where a prepositional object pronoun still seems to be excluded with a reflexive interpretation (see F7 in the comment following (A10o), although there is a reading of (AS5), besides the emphatic inclusive one, with the preposition(?) *na* and the independent pronoun *iye*. (All AS examples are only to be found in the anaphora sketch).

AS5) Ali wa-ka-bala buka na iye.
 Ali₁ SA₁-past-read book with him/her

'Ali read a book with her/him.' Or 'Ali too read the book.'

On the other hand, a pronoun (full or shortened) in (A10j) cannot corefer with the subject NP *Ali*, though the shortened form *-ye* does not provide a contrastive reading the way the full pronoun *iye* does. Proponents of an independent Principle B may be heartened by cases like (10j) where reflexive interpretation for full pronouns fail, but then it remains an open question why some succeed, and whether or not there are independent lexical semantic factors, rather than Principle B, that discourage reflexive readings in the cases that fail.

There is also an interesting wrinkle in the relationship between verbs of grooming that, with a null object, are understood reflexively. These are verbs that have a corresponding form that takes an overt direct object, and if so, the direct object can be replaced with the reflexive marker on the verb. As in most other languages that we have observed closely, the null object reflexive cannot support a proxy reading (like Jackendoff’s, 1992, wax museum examples, see also Safir 2004a:112-114) whereas the reflexive formed with *-zwi-* can do so. It remains an open question as to why some forms of reflexivity require indistinctness between the semantically two-place event described by the verb, while other forms of reflexivity permit dependent identity readings that involve distinct entities (e.g., a person and that person’s statue) for the two-place event. However, Ikalanga actually distinguishes the two verb stems by means of lexical extensions that distinguish between the inherent reflexive and what we might term the “alienable” reading of the transitive form, which is used when someone other than the subject is undergoing the washing. See the commentary in AQ3.8. The distribution of proxy readings raises interesting questions both for the theory of lexical representation (e.g., what does it mean for an argument of a predicate to be implicit?) and for the theory of dependent forms (as in Safir,

2004). The presence of the mysterious *-dz-* morpheme in Ikalanga for the distinctness reading, in contrast to what appears to be an *-l-* morpheme for the verb “wash” (root *angu*) may be instructive, since the *-dz-* marker is not an anti-reflexive marker (or no reflexive could be formed from it), but apparently a marker that simply requires distinct actors. We may wonder whether what is visible in Ikalanga is represented by null morphemes in other languages.

The view that only *-zwi-* and *-an-* (and pronouns where *-zwi-* is not available) represent local anaphoric readings seems secure, but there is a morpheme, *ega*, that seems to implicate reflexive readings, as in (C9ai)

- C9ai) Dan wa-ka-lebeleka ega.
 Dan_{1a} SA₁-past-talk alone
 ‘Dan talked to himself.’

The meaning given in (C9ai) cannot be achieved by means of a preposition to express the ‘himself’ part and the *zwi-* strategy cannot be employed either.

- C9aii) *Dan wa-ka-zwi-lebeleka.

On the other hand, (C9ai) would be acceptable without *ega*, but there would be a change of interpretation. Without *ega* the sentence means that Dan gave a speech at some occasion. Although the interpretation in (C9ai) is suggestive, it is more likely that *ega* means something closer to ‘alone’, a conclusion akin to what we find in CiNsenga (see the anaphora sketch for CiNsenga) where this sort of strategy has a wider usage. For example the following are not possible in Ikalanga with ‘ega’ interpreted as a reflexive.

- AS6a) Neo wa-ka-ambala ega.
 Neo_{1a} SA₁-past-dress alone
 ‘Neo got dressed alone.’
 b) Balume ba-ka-seka boga.
 Men₂ SA₂-past-laugh alone₂
 ‘The men laughed alone.’

In other words AS6a means Neo got dressed by herself rather than *Neo has dressed herself*, as seems to be the case in CiNsenga. Similarly, (AS6b) cannot mean *The men laughed at themselves*. We conclude that the *ega* morpheme is used more in the sense of ‘alone’ than as a reflexive in Ikalanga.

Although many other Bantu languages require complete complementarity between the OM and a reflexive affix, it is interesting that the OM and *-zwi-* are not entirely in complementary distribution in Ikalanga. Whenever there is more than one internal argument and a plausible interpretation, not only can two OM’s occur in the same clause (though that is dispreferred[Note 3]), but an OM and *-zwi-* can also cooccur. For example, in (AS7) and (AS8) the first object is not anaphoric and the second, available by virtue of an applicative affix, is anaphoric.[Note 4]

- AS7) Neo wa-ka-zwi-n-tobok-el-a.
 Neo_{1a} SA₁-past-REFLX.-OM-found out-APPL-FV
 ‘Neo found him/her out for herself.’ (for example, that ‘he’ was not genuine)
 AS8) Neo wa-ka-zwi-m-baakany-il-a.
 Neo_{1a} SA₁-past-REFLX-OM-fix-APPL-FV
 ‘Neo fixed him/her for herself.’
 (In the event that ‘he’ was not very nice and needed a personality clean-up).

For reasons that are not clear, however, it is not possible to get two reflexive affixes in a row, as illustrated in (AS9).

AS9) *Neo wa-ka-zwi-zwi-bon-el-a
 Neo_{1a} SA_{1a}-past-REFLX-REFLX-see-APPL-FV
 ‘Neo saw herself for herself.’

AS10) Neo wa-ka-chi-n-tol-el-a.
 Neo_{1a} SA₁-past-OM₇-OM₁-take-APPL.FV
 ‘Neo took it from him/her’ (perhaps a child was playing with a pair of scissors)

AS11) Neo wa-ka-i-m-bik-il-a.
 Neo_{1a} SA₁-past-OM₉-OM₁-cook-APPL-FV
 ‘Neo cooked it for him/her.’

There are some cases where the reflexive and the reciprocal can have the same antecedent, as in (W18’).

W18’) BoNeo ba-ka-zwi-bon-el-an-a.
 Neo₂ (and friends) SA₂-past-REFLX-see-APPL-RECIP.-FV

This requires a very special context. Suppose Neo and his friends had been looking for one another and couldn’t seem to find one another, perhaps in a crowd. Eventually they do find one another without anyone’s assistance. Presumably, the applicative has increased the adicity of "see" and the reflexive marker is the applicative-related argument.

These remarks do not exhaust the number of interesting issues that arise in the examination of anaphora in Ikalanga, as anyone who works through the AQ response for Ikalanga will discover (for example, there may be interesting issues to explore with respect to control in the clausal complementation system, as well as complementizer alternations that may have implications for anaphora as well as evidentiality). We hope, however, that the data in the Ikalanga AQ response provides a place to begin for those who wish to explore these issues further.

NOTES

Note 1: Although the word *shangan-a* has what looks like the *-an* of the reciprocal, the word *shangana* appears to be lexicalized.

Note 1A: There is a reading of the *-an-* affix in some Bantu languages (e.g., Kirundi) that has been described as ‘antipassive’ and that also permits a singular subject (like ‘Bill’), but has a transitive interpretation like “Bill hits people”. This is not found in Ikalanga, except perhaps in some isolated lexicalized cases.

- i. Bill u-no-thumul-an-a
 Bill SA-present-provoke-AN-fv
 "Bill is provocative." or "Bill likes to provoke people."
- ii. Bill u-no-tuk-an-a
 Bill SA-present-yell-AN-fv
 "Bill is yelling at people/upset with people."

Note 2: One of us (Letsholo) is currently exploring whether or not the applicative morpheme always licenses an extra argument to the verb. Intransitive verbs can host the applicative affix in cases where the ‘extra argument’ would be an adverbial.

- i. Ngwana u-no-lil-il-a sulii.

- Child_{1a} SA₁-pres.-cry-APPL-FV nothing
 ‘The child is crying for nothing.’
- ii. Mbisana wa-pind-il-a mbeli.
 Boy₁ SA₁.go/pass-APPL.-FV forward
 ‘The boy has gone ahead’

One might use ii. if the boy is walking with someone else and the boy walks further ahead of this other person. It is possible that the adverbials here are interpreted as nominals in relation to the verb, perhaps as quasi-arguments, but this proposal remains speculative at the moment.

Note 3: The order of the morphemes is restricted; the direct object HAS to come before the indirect object, not the other way round if OMs are used. It is only when lexical NPs are used that the benefactive has to precede the direct object. Reversing the two objects results in ungrammaticality as observed in example (b) below.

- i. Neo wa-ka-bik-il-a mbisana nyama.
 Neo_{1a} SA₁-past-cook-APPL-FV boy₁ meat₉
 ‘Neo cooked meat for the boy.’
- ii. *Neo wa-ka-bik-il-a nyama mbisana
 Neo_{1a} SA₁-past-cook-APPL-FV meat₉ boy₁
 ‘Neo cooked meat for the boy.’

The opposite order of OM’s is excluded, i.e., the benefactive must precede the direct object, as may also be observed for (AS7) and (AS8).

- iii. *Neo wa-ka-m-i-bik-il-a.
 Neo_{1a} SA₁-past-OM₁-OM₉-cook-APPL-FV
 ‘Neo cooked it for him/her.’
- iv. *Neowa-ka-n-chi-bon-el-a.
 Neo_{1a} SA_{1a}-past-OM₁-OM₇-see-APPL-FV
 E.g., ‘Neo saw it for him.’

The point of iv. is to show that the benefactive OM cannot precede the direct object OM. (AS7) shows the acceptable order of OMs. Interestingly however, where the benefactive is the reflexive, the reflexive then has to precede the direct object.

Note 4: The translations in (AS7) and (AS8) use gender to distinguish the object from the subject, since the reflexive affix can only be coconstrued with a subject, though there is no masculine/feminine gender contrast for Bantu OM’s. Also, (AS8) can also be expressed as in i., where the pronoun *iyē* is taken to be the direct object.

- i. Neo wa-ka-zwi-tobok-el-a iye
 Neo_{1a} SA₁-past-REFLX.-found out-APPL-FV him/her
 ‘Neo found out him/her out for herself.’
 (for example, that the person is not genuine)

Normally the use of the full pronoun is emphatic, much in the way that *himself* is used in English for *John chose Mary himself*, or coconstrued with the object, either OM or full nominal, as in ii. or iii, respectively

- ii. John wa-ka-shalula Mary iye.
 John_{1a} SA₁-past-choose Mary_{1a} herself/her/him
 ‘John chose *Mary herself*’ (e.g. instead of her sister, as was expected)
 Ambiguous: *iyē* can co-refer with John (John himself (not anyone else) chose Mary) or with Mary.

- iii. John wa-ka-n-shalula iye.
 John_{1a} SA₁-past-OM-choose her
 'John chose *her herself*' (e.g. instead of her sister, as was expected)
 Ambiguous: John himself chose her or John chose her herself (not someone else).

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