

A Sketch of the Pattern of Anaphora in Urhobo
Rose Oro Aziza and Ken Safir

The Urhobo language provides an interesting example of the interaction of multiple anaphoric forms. There are at least four overt forms that achieve anaphoric readings in addition to a limited null object strategy and otherwise independent pronouns. Of the overt anaphor forms, all four occur in argument positions and all four permit both reflexive and reciprocal readings with plural antecedents. This variety of forms is especially striking since all of the anaphors are local; non-coargument anaphora, including long distance anaphora, is generally achieved by otherwise independent pronouns. Thus almost all of the alternations or choices with interpretive consequences that are of particular interest involve clausemate relations. In case "AQR" is not familiar it refers "Anaphora Questionnaire Response. "

1.0 A brief inventory of the anaphoric strategies

Strategy A, or "Oma-X" - This is a body part anaphor consisting of the word meaning "body", *oma*, an associative marker (abbreviated AM in the glosses), *re* and an object pronoun form that agrees with the antecedent in person and number (Urhobo does not mark pronouns for gender), e.g., with a third person singular pronoun, *oma-re-oyen* = *omaroyen* (but *re* is omitted when the possessive pronoun starts with a consonant generally, see below and AQR 2.1.5). The AM is found quite generally in nominal phrases and would correspond to English "of" in many contexts, though it also occurs to mark the relation of a head noun to a relative clause. Possessive forms of pronouns may be thought of as *re*+pronoun (see below). Loosely translated, then, "OMA-X could be literally translated as "his body". In object position and prepositional object position, this form achieves both reflexive and reciprocal interpretations with plural antecedents. It is the only one of the relational anaphors that does not require an animate antecedent (see AQR 4.1.3.2). It cannot appear in subject positions.

Strategy B or "Omarobo-X" - This form consists of the morphemes BODY-(AM)-HAND-AM-pronoun (the first AM can be omitted), and permits both reciprocal and reflexive readings and its antecedent must be animate. When it appears in subject position it has an emphatic reading unless it appears with a very limited class of psychological predicates, for which it appears to allow reverse binding (apparent binding of a surface subject by a direct object AQR C4e). However, it can appear as a prepositional object. For reasons that are still obscure, there are cases where this strategy is strongly disfavored even though Strategies A, C, and D are all possible (e.g., see AQR A11). In addition, it appears that *omarobo-x* cannot be anteceded by a direct object, although the forms for Strategies A, C, and D can (see AQR 4.1.2.2)

Strategy C or "Oma+Oma-X" - This strategy with a reduplicated body morpheme requires a plural antecedent, favors reciprocal interpretations but can also be reflexive. It can appear in direct object and prepositional object positions (as illustrated in (AQR A11b,c), respectively). (It may be a related fact that the word for "each" is the word meaning "one" reduplicated, i.e. *ovuovo*, one-one, although this can also mean "only one"). It is possible that there is a nonreflexive usage of this term as "only one" that can appear in subject position. This form can be used for reflexive or reciprocal readings wherever Strategy D is possible.

Strategy D or "Ohwohwo" - The form is a reduplication of a morpheme meaning "person", *ohwo*. This strategy permits both reflexive and reciprocal readings, but it cannot be used for singulars and (it is disfavored/excluded? for) plurals more than pairs (There is no other morphological manifestation of duality in Urhobo, such as dual agreement or dual pronouns). Perhaps the restriction for reciprocals has to do with its favored interpretation, a strictly reciprocal relation "X acts on Y and Y acts on X". *Ohwohwo* can be used as a direct object or as a prepositional object. Although *ohwohwo* is possible in subject positions it does not have an anaphoric reading (instead it means "each one"). Unlike strategies A, B and C, the form *ohwohwo* is invariant - not associated with any agreement marker or pronoun (AQR2.1.5).

Strategy E or "Object Null" - This is similar in its distribution to English "John bathed", in that it is limited to particular lexical classes of verbs, but is productive within the classes of verbs that it applies to. It is not established whether null object reflexive verbs act as transitives by other tests or not.

Strategy F, the pronominal strategy - This is the use of an otherwise independent pronoun to form anaphoric readings. These are the same pronouns that can appear in construction with Strategies A, B, and C.

(a) Pronouns appear in argument positions in Urhobo, that is, the same positions in the clause that a full name or description would - they are not displaced in clitic positions or as verb markers, for example.

(b) Pronouns represent coconstrual with a nonlocal antecedent (e.g., an antecedent outside the clause containing the pronoun).

(c) Pronouns represent coconstrual when the pronoun is possessive and construed with any antecedent (clausemate or not).

(d) In certain circumstances, pronouns represent coconstrual with a clausemate antecedent when the pronoun is embedded in a prepositional phrase.

(e) Pronouns must be used, even locally when there is a split antecedent.

The general fact, then, is that independent pronouns cannot normally be used to create coargument reflexive readings and they are never used for reciprocal readings.

Possessive pronouns usually appear as just a combination of the associative marker (AM) followed by the object pronoun. The AM is phonetically absent if the pronoun starts with a consonant (as in the case of first and second person singular, see (a,b) at the beginning of 4.4.2 and remark in 2.1.5), but it is morphologically integrated into pronouns beginning with vowels that follow it. The pronominal paradigm is as follows, most of the subject/object paradigm is exemplified in (A10).

Subject Pronouns		Object Pronouns		Possessive Pronouns	
mi ~ me	"I"	vwe ~ me	"me"	me	"mine"
wo ~ wo	"you (sg.)"	we	"you"	we	"yours"
o ~ o	"he / she / it"	o ~ o	"him / her / it"	royen	"his/hers/its"
avware	"we"	avware	"us"	ravware	"ours"
owavwa	"you (pl.)"	owavwa	"you"	rowavwa	"yours"
ayen	"they"	ayen	"them"	rayen	"theirs"

Prepositional object pronouns have the same form as object pronouns. It is possible to drop a direct object pronoun with many verbs (see AQR 2.2.3), but these missing objects are not part of strategy E and cannot be interpreted reflexively. They appear to pattern with the independent pronoun strategy.

Emphatic uses of anaphors. In some languages, emphatic nominals with salient antecedents are expressed with focused anaphoric forms, even though these focused anaphors would not be well-formed in these contexts without focus. The issue does arise in Urhobo for strategy B, which can be used in a way similar to English *The president said that himself*. However, other strategies for emphatic or focused readings like *only the children* or *the children themselves* are expressed with a form not used for clausemate anaphora, namely, reduplication (AQR A3e). There is also a form *okpuyovwi* that can be glossed prefix (*okp*)-head that can be associated with a noun or pronoun to form an emphatic reading, but it cannot be locally anteceded (see AQR4.1.1.5), but *okpuyovwi*+pronoun does not appear to form reflexive readings on coarguments. *okpuyovwi* can appear in subject position in construction with a pronoun, but then it is disjoint from an object coargument. There is also an emphatic strategy that reduplicates a noun to indicate "only N", but this is not used to form reflexive readings between different thematic positions either.

2.0 Some generalizations about anaphora in Urhobo.

If A and B are coarguments, no subpart of A can antecede an anaphoric B (e.g., in English, **John's mother loves himself*) (i.e., c-command is required for anaphoric forms, but not for pronouns). Principle C effects appear to hold generally as well, in that names and descriptions cannot be c-commanded by their

antecedents. Backwards anaphora with pronouns is generally excluded, although there is perhaps more to explore with respect to reverse binding. Proxy readings appear to be difficult for all forms. Quantified antecedents do not appear to influence the choice of anaphor, though plurality and animacy do. Split antecedents are possible for the independent pronoun strategy, but not for any of the anaphors. There is no overt verb morphology that achieves reflexive or reciprocal readings.

At present, we have not seen evidence of morphologically marked logophoricity in Urhobo, but we do not consider our exploration of this question complete.

3.0 Some analytic remarks

The variety of forms employed in the clausemate domain raises questions as to how the individual forms can be characterized, on the one hand, and how the systematic patterns that result can be predicted. The argument-marked forms of Strategies A-D may all be characterized as clausemate anaphors, since all of them appear to require clausemate antecedents that c-command them and do not allow split antecedents. Within an approach like that of Chomsky's (1981) Binding Theory (BT), Strategies A-D are regulated by Principle A (where the domain is that of coarguments) and independent pronouns are regulated by Principle B, which means they must not have local antecedents (presumably, the coargument domain)

The differences between Strategies A-D seem entirely to involve properties of their antecedents, on the one hand, and their internal morphologies, on the other. Strategies C and D are plurals and so must their antecedents be, but Strategy D favors pairwise interpretation and seems to often disfavor the use of Strategy C for these readings. However, the general tendency of forms A-D to be possible whenever their semantic requirements are met would seem to indicate that they do not compete with each other, in the sense of Safir's (2004) competitive theory. In the latter approach, forms compete to represent anaphoric readings, such that where more than one form is available, the more dependent form wins (in English, *himself* outcompetes *him* where both forms are available). Urhobo forms A-D are consistent with a competitive approach to anaphora if they tie with respect to the 'most dependent scale' and if they must follow some version of Principle A (which will require that they are more dependent than pronouns). The if the forms for Strategies A-D are all anaphors, they will always outcompete simple pronouns, hence the Principle B effects (and Principle C effects) that we see in Urhobo follow from the competitive principle.

The fact Strategies A-D do not preclude each other may not be surprising, insofar as Urhobo lacks local pronominal anaphors, unless we are to count the lexically very limited Strategy E. Strategies A-D employ forms that are what Safir (2004) calls "relational anaphors". Relational anaphors are based on a nominal root that is not itself a pronoun and the root often has an independent meaning in the language. Body parts are frequently employed as relational anaphors, including roots meaning "head",

"body", "face" or even "person" that are frequently required to be associated with pronouns (as in Urhobo and English). The choice of body part noun to participate in forming reflexive and/or reciprocal readings is conventionalized, such that other nominal body part roots cannot have this non-literal meaning (e.g., where "my body" can be used to form a reflexive reading or a literal meaning, "my face" only has a literal meaning in Urhobo).

It may be a general fact that relational anaphors tie with each other on the dependent scale, while pronouns pronominal anaphors generally compete at different points in the most dependent scale with the relational ones (there is such a three way competition in Dutch, for example). Most languages do not have more than one relational anaphor that can share the same meaning, and insofar as Urhobo permits us to examine this possibility, it suggests that relational anaphors that can support the same meanings *always* tie. At minimum, it is a hypothesis worth following up on for some other language that has more than one relational anaphor that permits the same interpretation (English has the relational anaphors pronoun-*self* and *each other*, but they generally cannot represent the same reading).

Notice also that it would not be sufficient to treat the anaphors as embedding pronouns to "protect" them from the effects of Principle B, as Jayaseelan (1997) has proposed for anaphors in other languages. The idea as it would apply to Urhobo might treat Strategies A-C as embedding a pronoun such that the pronoun is not susceptible to Principle B (assuming, as Jayaseelan does there is a Principle B). However, this does not explain why Strategies A-C cannot be used non-locally, except, in the case of Strategy A, with a literal reading, nor does Strategy D seem relevant unless a silent pronoun is posited to be in the construction. In short, it is not clear what the explanatory role of a Binding Theory-like Principle B would add to our understanding of these forms in Urhobo.

From the perspective of the Reinhart and Reuland (1993) approach (henceforth, R&R), where reflexive readings are only possible if a reflexive predicate is formed, Strategies A-E form reflexive predicates (in their feature system, these forms would be [+REFL, -R]), but each form presumably imposes additional restrictions on the nature of the reflexive predicate formed (e.g., plurality, animacy). Although R&R do not discuss any languages that have more than one of reflexive marker, having more reflexive markers or more local anaphors does not appear to distinguish this theory from others. The independent pronouns do not form reflexive predicates, and thus cannot be used when the interpretation of the predicate is reflexive (or reciprocal), which is the R&R version of Principle B. Safir's competitive approach predicts that pronouns will be excluded wherever anaphors are permitted, and this predicts, given the clausemate condition on anaphors, that pronouns cannot have clausemate antecedents.

It is possible that the reflexive predicate approach and the competitive approach can be distinguished if there is a position that requires an anaphor, not a pronoun, but is not a coargument of its antecedent. Also interesting would be any case where no anaphor can have a clausemate antecedent and a pronoun is used instead. A candidate for the latter possibility is the clausemate split antecedent case if a pronoun can be used for that, or, if anaphors are all subject-oriented, instances like *John told*

Mary about herself if Urhobo requires a pronoun for this reading. A candidate for the first sort of case would be examples like *John saw a picture of himself* if *him* could not appear in the same position.

These remarks hardly exhaust the relevant generalizations in Urhobo, as there is more empirical research to be done, nor does it exhaust range of the range of theoretical questions on which the facts of Urhobo might be brought to bear. This anaphora sketch will be updated periodically, as new facts and issues emerge.