REFLEXIVES AND RECIPROCALS IN COPALA TRIQUE

BARBARA E. HOLLENBACH

UNIVERSITY OF ARIZONA AND SUMMER INSTITUTE OF LINGUISTICS

0. Introduction. Copala Trique forms reflexives by using the possessed noun *ma³ʔã¹³* 'self of' (or 'body of') before the anaphoric noun phrase.[1] In this respect, therefore, it is similar to English (and to many other languages). Unlike English, however, the use of Copala Trique reflexive

---

[1] Copala Trique is a Mixtecan language spoken in the districts of Juxtlahuaca and Putla, Oaxaca, Mexico. It has the following consonants: fortis stops *p t k*, lenis stops *b d g*, affricates *c č ȼ*, fortis sibilants *s š ṣ̌*, lenis sibilants *z ž r*, nasals *m n*, liquid *l*, glides *w y*, and laryngeals *ʔ h*. There are three short vowels, *e o a*, and five long vowels, *ii uu ee oo aa* (written *i u e o a* in nonfinal syllables and in closed final syllables, where they do not contrast with short vowels). There are two kinds of autosegments, nasalization and tone, whose distribution can best be described with reference to the metrical structure of the word. Words contain either one or two feet, and word-final syllables receive primary stress, while other foot-final syllables receive secondary stress. Nasalization (˜) occurs optionally on word-final feet, where it is manifested primarily on the stressed vowel, but it occurs also on all contiguous segments that are [−consonantal]. In the examples it is written only on the stressed vowel. Tones *1 2 3 4 5* (from low to high) occur singly or in certain two-tone sequences on the foot, where they are manifested on the stressed vowel. In the examples tone is written following stressed syllables, where it serves to indicate foot boundaries. Unstressed vowels are not marked for tone because their pitch is predictable from the following tone: they are pronounced at level *2* before tones *1* or *2*, and they are pronounced at level *3* before tones *3, 4,* or *5*. Further information about the phonology of Copala Trique is found in Hollenbach (1977; 1983); the 1983 paper deals exclusively with metrical and autosegmental structure and supersedes statements on these topics found in the 1977 article. Note that the tone system has been reanalyzed as a register system, rather than as a contour system, and that I have inverted the values for the numbers. The number *1* in the present article represents the lowest tone in the system, and it corresponds to the number *5* used in Hollenbach (1977; 1979) and in other articles published about Trique prior to 1982. The other correspondences are *2:4, 3:3, 4:32, 5:21, 13:53, 31:35,* and *32:34*. The two highest tones in the new system, *4* and *5*, are phonetically upglides even though they are analyzed as underlying level tones.

The data in this article are from my unpublished field notes. I would like to express my appreciation to Pablo Ramírez Flores for checking the examples, and also to Adrian Akmajian for his helpful comments on earlier drafts of the paper, and to *IJAL*'s referees for a number of suggestions that I incorporated into the final draft.

On July 27, 1983, the day after I finished typing the final version of this manuscript, Adrian Akmajian died of leukemia. He was thirty-eight years old. I would like to dedicate this article, which grew out of a term paper for his advanced syntax class, and which he encouraged me to submit to *IJAL*, to his memory.

forms is subject to none of the syntactic restrictions described by Helke (1973:8–9). Furthermore, noun phrases preceded by $ma^3\tilde{a}^{13}$ often have a nonanaphoric reading, and in sentences that have an anaphoric reading, the use of $ma^3\tilde{a}^{13}$ is optional, though preferred. These facts make Copala Trique appear to be an exception to Chomsky's binding conditions (1981:188).[2] (Copala Trique is also exceptional to these conditions in having optional pronominalization under certain circumstances.) The distribution of $ma^3\tilde{a}^{13}$ can be accounted for by positing a class of emphatic noun phrases, freely generated in all positions, and considering the reflexive meaning to be simply one use of this syntactic class.

From a diachronic perspective, however, the $ma^3\tilde{a}^{13}$ reflexive can probably best be viewed as an incipient category that is developing precisely because of the need for some mechanism that will allow the binding conditions (or something like them) to operate. Copala Trique will therefore probably prove to be only a temporary exception to these conditions.

In his detailed cross-linguistic study of reflexivization, Faltz mentioned the possibility that a language may have no reflexive or "a unique but optional primary reflexive" (1977:18–19). Neither of these possibilities is represented by a living language of his sample, though he believes that Middle English and perhaps Old English instantiate the second one. Copala Trique is, however, a living language that currently has an optional reflexive.

Even though my primary purpose in writing this article is to describe the synchronic facts of Copala Trique, it is my hope that making these facts available will shed light both on the way in which the binding conditions operate during the course of syntactic change and on the way in which *self*-type reflexives develop historically.

Reciprocals are often treated together with reflexives, and in some languages, for example, Spanish, a plural reflexive form carries reciprocal meaning in place of, or in addition to, reflexive meaning. In Copala Trique, however, the two constructions are invariably distinct from each other: reflexives are formed by using $ma^3\tilde{a}^{13}$ 'self of', and reciprocals are formed by using $tuwi^{23}$ 'companion of'. There are two kinds of

---

[2] The three conditions are an updated version of what was formerly known as the disjoint reference principle. To paraphrase them roughly, the first condition states that a reflexive or reciprocal anaphor must be coindexed with a c-commanding noun phrase in its clause, the second condition states that a pronoun must not be coindexed with a c-commanding noun phrase in its clause, and the third condition states that a noun must not be coindexed with any antecedent in the sentence. These conditions are described more fully in Chomsky (1981:183–222; 1982:20–28); a very clear and helpful explanation of them can also be found in Radford (1981:362–91).

reciprocal constructions, lexical and syntactic. In lexical reciprocals *tuwi^{73}* follows the verb stem, and the combination is an idiom that must be listed in the lexicon. In syntactic reciprocals *tuwi^{73}* precedes the ana-phoric noun phrase; such sentences are ambiguous between the recip-rocal reading and the compositional reading. Syntactic reciprocals are in this respect parallel to reflexives: they are one use of a broader class that is generated freely.

Because both reflexives and reciprocals are based on possessed nouns, a brief overview of possession is presented before treating either in detail. Following the discussion of reflexives and reciprocals, I consider the historical background of the present situation and venture some guesses about future developments.

1. Possession in Copala Trique. In Copala Trique a possessed noun is morphologically marked as possessed, while its possessive determiner, which follows it, is unmarked. Therefore, the head noun in a phrase has one form when it occurs with a possessive determiner, and a different form when it occurs without one, while the possessive determiner has the form of an ordinary noun phrase or pronoun, as seen in examples (1)–(10).

(1) *mi^{3}šte^4* 'machete'

(2) *gwaa^4* 'John'

(3) *ze^{32}-mi^{2}šte^4 gwaa^4*
machete-of John
'John's machete'

(4) *ʔũh^1* 'first-person-singular'

(5) *ze^{32}-mi^{2}šte^4 ʔũh^1*
machete-of first-person-singular
'my machete'

(6) *yuʔweh^{32}* 'thread'

(7) *ša^{3}na^1* 'woman'

(8) *tuʔweh^{32} ša^{3}na^1*
thread-of woman
'the woman's thread'

(9) *zoʔ^1* 'second-person-singular'

(10) *tuʔweh^{32} zoʔ^1*
thread-of second-person-singular
'your thread'

In the above examples it can be seen that the Trique nouns *gwaa⁴* 'John' and *ša³na¹* 'woman', and the pronouns *ʔũh¹* 'first-person-singular' and *zoʔ¹* 'second-person-singular', are identical in form whether they function as possessive determiners or as heads. The words that mean 'machete' and 'thread', on the other hand, which are always head nouns in these examples, differ in form depending on whether or not they occur with a possessive determiner.[3] The most common morphological change to indicate possession is the addition of proclitic *ze³²-* and a lowering of the tone of the noun root, as seen in (3) and (5) compared with (1). There are also various irregular changes, including the replacement of root-initial *y-* by *t-*, as seen in (8) and (10) compared with (6). Note that these changes signal only that the noun has a possessive determiner; they do not indicate its identity. The possessive determiner is expressed by the noun phrase or pronoun that follows the possessed head noun.

The nouns for 'machete' and 'thread' are optionally possessed. Other nouns, however, are inherently possessed, that is, they must be followed by a possessive determiner. These nouns are usually kinship terms or body parts. Such nouns, of course, show only one form, as seen in examples (11)–(14).

(11) **nii³*

mother-of

'mother'

(12) *nii³   zoʔ³*

mother-of third-person-singular-masculine (3sm)

'his mother'

(13) **takoo⁵*

foot-of

'foot'

(14) *takoo⁵ zoʔ³*

foot-of 3sm

'his foot'

---

[3] In its treatment of possession, Copala Trique is parallel to Semitic, which uses a special construct form of nouns when they appear with a possessive determiner. Such a system is in a sense the opposite of Germanic and Romance, which mark the possessive determiner. Even though it may seem odd to mark the head rather than the determiner, the analysis presented above is corroborated by the fact that example (3) is about a machete, not about John, and the phrase collocates with the same verbs as its head noun. For example:

siaa¹ waa³² ze³²-mi²šte⁴ gwaa⁴ a³²

sharp is   machete-of John decl

'John's machete is sharp'.

The word $ma^{3}?\tilde{a}^{13}$ that signals emphatic or reflexive meaning falls into the class of body parts, and the word $tuwi^{?3}$ that signals reciprocal meaning falls into the class of kinship terms:

(15) *$ma^{3}?\tilde{a}^{13}$
self-of
'self, body'

(16) $ma^{3}?\tilde{a}^{13}$ $zo^{?3}$
self-of   3sm
'himself, he himself, his body'

(17) *$tuwi^{?3}$
companion-of
'companion'

(18) $tuwi^{?3}$ nih^{3} $zo^{?3}$
companion-of the-pl(ural) 3sm
'each other, their companion(s)'

Recursive embedding of noun phrases within the possessive determiner of other noun phrases is common:

(19) $ni^{3}ka^{2}$ $ta^{?}nu^{?3}$ bah^{5} $zo^{?3}$
spouse-of uncle-of compadre-of 3sm
'his compadre's uncle's wife'

Certain inherently possessed nouns also function as prepositions, and many phrases containing them are syntactically ambiguous: they may be either noun phrases or prepositional phrases:[4]

(20) $ri\tilde{a}\tilde{a}^{32}$ $zo^{?3}$
face-of 3sm
'his face' or 'to him, in front of him'

(21) $\check{s}e^{?}e^{4}$ $gwaa^{4}$
base-of John
'John's feet' or 'about John, on account of John'

2. Reflexives. The inherently possessed noun $ma^{3}?\tilde{a}^{13}$ 'self of' may occur as the direct object of a sentence or as the object of some preposition to indicate that its possessive determiner is anaphoric with the subject of the sentence:

---

4 Within particular sentences, however, the ambiguity can be resolved by attempting to prepose a numeral or other quantifier to the inherently possessed noun. If it is functioning as a preposition, the presence of a quantifier will not be acceptable to native speakers.

(22) *kene²e³ gwaa⁴ mã³ ma³²ã¹³ zo²³ a³²*
      saw   John   to   self-of 3sm decl(arative)
      'John saw himself'.⁵

(23) *nano⁴ gwaa⁴ kwe³ndo⁴ še²e⁴   ma³²ã¹³ zo²³ a³²*
      told   John story   base-of self-of 3sm decl
      'John told stories (chatted) about himself'.

A noun phrase based on *ma³²ã¹³* may also serve as the possessive deter-
miner of a noun, in which case the English translation is 'own' rather
than 'self':

(24) *katuh⁵ gwaa⁴ ra⁴ tukwa⁴   ma³²ã¹³ zo²³ a³²*
      entered John in home-of self-of 3sm decl
      'John entered his own house'.

Examples (22)–(24) are completely parallel to English reflexives (if we
consider *own* to be a kind of reflexive), but they represent only a small
fraction of the distributional possibilities for *ma³²ã¹³*, which occurs in a
variety of other anaphoric, as well as some nonanaphoric, uses.

    One way in which *ma³²ã¹³* is used in Trique that is different from the
use of *-self* in English is that *ma³²ã¹³* is optional. If it were deleted from
examples (22)–(24), the resulting sentences would be ambiguous between
an anaphoric and a nonanaphoric reading (with the nonanaphoric read-
ing slightly preferred). Consider the following counterparts to sentences
(22) and (23):

(25) *kene²e³ gwaa⁴ mã³ zo²³ a³²*
      saw   John   to 3sm decl
      'John saw him' or 'John saw himself'.

(26) *nano⁴ gwaa⁴ kwe³ndo⁴ še²e⁴   zo²³ a³²*
      told   John story   base-of 3sm decl
      'John chatted about him' or 'John chatted about himself'.

---

⁵ The preposition *mã³* is probably an etymological doublet of *ma³²ã¹³*. Although it is
used as a body-part noun only in a few frozen phrases, such as *nu²¹ mã³ zo²³* 'his whole
body', *mã³* is the preposition commonly used in contexts where the whole person is in
focus, rather than any specific part of his body. It has also become grammaticalized as a
mark of the animate direct or indirect object of a verb. The original form of the word was
probably **ma³²ã³*, which is the form 'self of' takes in the related Chicahuaxtla dialect of
Trique (Robert E. Longacre, personal communication). The preposition *mã³* was derived
via the loss of the medial glottal stop, and the inherently possessed noun *ma³²ã¹³* was
derived via a tone alternation between *3* and *13*, followed by the assignment of secondary
stress and tone *3* to the first syllable. All of these processes are attested in the development
of other forms in the language.

Contrast the situation in English, where the absence of a *-self* reflexive (though not of an *own* reflexive) forces a nonanaphoric reading. The possibility of an anaphoric reading for these sentences is a violation of Chomsky's second binding condition.

A second difference between the use of $ma^3\tilde{a}^{13}$ in Trique and the use of *-self* in English is that $ma^3\tilde{a}^{13}$ optionally precedes anaphoric nouns as well as pronouns,[6] because pronominalization is not always obligatory in Trique (which violates Chomsky's third binding condition). Consider the following examples:

(27) $kene^?e^3 \ gwaa^4 \ m\tilde{a}^3 \ (ma^3\tilde{a}^{13}) \ gwaa^4 \ a^{32}$
saw   John to (self-of) John decl

'John saw himself'.

(28) $kene^?e^3 \ \check{s}nii^3 \ m\tilde{a}^3 \ (ma^3\tilde{a}^{13}) \ \check{s}nii^3 \ a^{32}$
saw   boy to (self-of) boy decl

'The boy saw himself'.

A third difference between the use of $ma^3\tilde{a}^{13}$ and the use of *-self* is that $ma^3\tilde{a}^{13}$ can precede an anaphoric noun phrase or pronoun in situations for which Helke (1973:8–9) has shown that English reflexives are ungrammatical. First of all, Trique $ma^3\tilde{a}^{13}$ is not restricted to situations in which it is a clausemate of its antecedent:

(29) $ne^?e^3 \ \ gwaa^4 \ ze^{32} \ waa^{32} \ \ ra^2kwih^5 \ li^3na^4 \ \ \ \ m\tilde{a}^3 \ ma^3\tilde{a}^{13} \ zo^{?3} \ a^{32}$
knows John that there-is will-help Kathleen to self-of 3sm decl

'John$_i$ knows that Kathleen will help him$_i$'.

Second, the antecedent of a $ma^3\tilde{a}^{13}$ phrase can be a coordinate conjunct:

(30) $kene^?e^3 \ gwaa^4 \ ga^2 \ li^3na^4 \ \ \ \ m\tilde{a}^3 \ ma^3\tilde{a}^{13} \ zo^{?3} \ a^{32}$
saw   John and Kathleen to self-of 3sm decl

'John$_i$ and Kathleen saw him$_i$'.

(31) $nano^4 \ gwaa^4 \ ga^2 \ li^3na^4 \ \ \ \ kwe^3ndo^4 \ \check{s}e^?e^4 \ \ \ ma^3\tilde{a}^{13} \ zo^{?3} \ a^{32}$
told   John and Kathleen story   base-of self-of 3sm decl

'John$_i$ and Kathleen chatted about him$_i$'.

Third, the antecedent of a $ma^3\tilde{a}^{13}$ phrase can be a possessive determiner:

[6] Note that there is no need to posit a special series of reflexive pronouns in Copala Trique. The language has a single series of pronouns that occur in all syntactic positions: subject, direct object, object of preposition, and possessive determiner of noun. Any pronoun can be preceded by $ma^3\tilde{a}^{13}$, and there are no irregular forms. Even though some pronouns affect the tone of a preceding word, and a few bound (clitic) pronouns exist, the interaction between $ma^3\tilde{a}^{13}$ and such pronouns is completely regular.

(32) *kene^{2}e^3 reh^3 li^{3}na^4 mã^3 ma$^{3?}$ã^{13}*
saw   father-of Kathleen to self-of

    no$^{?3}$ *a^{32}*
    third-person-singular-feminine (3sf) decl

'Kathleen's$_i$ father saw her$_i$'.

(33) *ka^{2}mii^{32} reh^3 li^{3}na^4 še^{2}e^4 ma$^{3?}$ã^{13} no$^{?3}$ a^{32}*
spoke   father-of Kathleen base-of self-of 3sf decl

'Kathleen's$_i$ father spoke about her$_i$'.

Fourth, the antecedent of a *ma$^{3?}$ã^{13}* phrase does not need to be a single constituent; it may, for example, be split between the subject and the indirect object:

(34) *ka^{2}mii^{32} gwaa^4 riãã^{32} li^{3}na^4 še^{2}e^4 ma$^{3?}$ã^{13} roh^1 zo$^{?3}$ a^{32}*
spoke   John face-of Kathleen base-of self-of the-dual 3sm decl

'John$_i$ spoke to Kathleen$_j$ about them$_{i+j}$'.

Fifth, an anaphoric *ma$^{3?}$ã^{13}* phrase can be fronted to preverbal position by a movement rule, in which case it precedes its antecedent:

(35) *ma$^{3?}$ã^{13} no$^{?3}$ kene^{2}e^3 li^{3}na^4 a^{32}*
self-of 3sf saw   Kathleen decl

'Kathleen saw HERSELF'.

(36) *še^{2}e^4 ma$^{3?}$ã^{13} zo$^{?3}$ ka^{2}mii^{32} gwaa^4 a^{32}*
base-of self-of 3sm spoke John decl

'John spoke about HIMSELF'.

Sixth, a *ma$^{3?}$ã^{13}* phrase may be the subject of the sentence and still be coreferential with another noun phrase in the sentence:[7]

(37) *ma$^{3?}$ã^{13} ša^{3}na^1 kene^{2}e^3 mã^3 ša^{3}na^1 a^{32}*
self-of woman saw   to woman decl

'The very woman saw herself'.

(Even though the English translation of sentence 37 contains a reflexive, there is no reflexive object in Trique; the subject is *ma$^{3?}$ã^{13} ša^{3}na^1*, and the direct object is *ma^3 ša^{3}na^1*.)

---

[7] When *ma$^{3?}$ã^{13}* occurs as part of the subject, the additional prominence usually forces topicalization of the subject. In Copala Trique, which is a VSO language, any noun phrase, including the subject, may be moved to preverbal position by this rule, without leaving a pronoun copy and without pause between the fronted noun phrase and the rest of the sentence. A second reason for fronting a subject containing *ma$^{3?}$ã^{13}* is to avoid ambiguity with a construction in which *ma$^{3?}$ã^{13}* immediately follows the verb and serves as an adverbial modifier meaning 'by itself'; see sentences (70) and (71) in **4**.

A fourth major difference between the use of Trique $ma^{3?}\tilde{a}^{13}$ and the use of English reflexives is that a $ma^{3?}\tilde{a}^{13}$ phrase need not be anaphoric; it may be simply emphatic:

(38) $kene^{?}e^{3}$ $gwaa^{4}$ $m\tilde{a}^{3}$ $ma^{3?}\tilde{a}^{13}$ $no^{?3}$ a^{32}
saw   John to self-of 3sf decl
'John saw her herself' or 'John saw the very woman'.

(39) $ma^{3?}\tilde{a}^{13}$ $zo^{?3}$ $ki^{?}yah^{3}$ $we^{?3}$ a^{32}
self-of 3sm made   house decl
'He himself built the house'.

Note that in English an emphatic is constructed using a reflexive pronoun as a complement of a nonreflexive pronoun, as seen in the free translation of (38) and (39). The structure of English differs in this respect from the structure of Trique, which has no formal difference between the reflexive and the emphatic uses of $ma^{3?}\tilde{a}^{13}$.

The emphatic use of $ma^{3?}\tilde{a}^{13}$ phrases, which is seen clearly in sentences (38) and (39), provides the key to understanding the syntax of Copala Trique reflexives. All the above examples can be accounted for by positing a single class of emphatic noun phrases in Copala Trique, freely created in all noun-phrase positions by generating a possession phrase with $ma^{3?}\tilde{a}^{13}$ as the head noun.[8] Reflexive noun phrases in Copala Trique are therefore not a separate class of elements, but rather one interpretation of the broader class of emphatic noun phrases. Some emphatic phrases are assigned anaphoric interpretations by semantic interpretation rules, and among these anaphoric phrases, those with the correct structural relations between antecedent and anaphor are translated by reflexive pronouns. While explicit formulation of the semantic interpretation rules is a task for further research, one such rule is:

[8] Because of its semantic function, which is to draw attention to the following noun phrase, $ma^{3?}\tilde{a}^{13}$ may seem to be a determiner, but it is in fact the head of the construction, and the following noun phrase, which is semantically more important, is its possessive determiner (cf. the discussion of possession in 1 above). Because two factors foster the illusion that $ma^{3?}\tilde{a}^{13}$ is a determiner, however, the situation is perhaps unstable and ripe for a change. These two factors are: the determinerlike meaning of $ma^{3?}\tilde{a}^{13}$, which makes it seem implausible as a noun; and the fact that, because of the syntactic structure of Trique, the possessive determiner of $ma^{3?}\tilde{a}^{13}$ is unmarked as such and can therefore be viewed equally well as the head noun. The skewing of the syntax and semantics in sentences with $ma^{3?}\tilde{a}^{13}$ is reminiscent of the skewing in such English examples as *a number of stories*, discussed by Akmajian and Lehrer (1976). They concluded that nouns like *number* are not the head noun in such examples, but rather that expressions like *a number of* are quantifier phrases, because of the way such phrases behave with respect to movement rules like extraposition. A similar solution may ultimately prove necessary for Copala Trique reflexives. If such a shift were to occur, it would be, in a sense, the opposite of the development of *self* in English, which shifted from an adjective to a noun.

(40) A direct object phrase with $ma^{3?}\tilde{a}^{13}$ that agrees in person, gender, and number with the subject is anaphoric with the subject.

This situation is, of course, the prototypical use of any reflexive marking (see, for example, Faltz 1977:3–4), and it is the only one in Trique in which the presence of $ma^{3?}\tilde{a}^{13}$ forces an anaphoric reading. Sentence (22) above is therefore not ambiguous. Other situations are ambiguous (at least for some speakers): a phrase with or without $ma^{3?}\tilde{a}^{13}$ that agrees with some other noun phrase may be either anaphoric or nonanaphoric. The possibility of the anaphoric interpretation for a given sentence seems to depend far more on the context and on the meaning of the verb than on any syntactic conditions other than the one in (40). For example, the anaphoric interpretation for sentence (41) was rejected by one speaker simply because it did not make sense to him for a person to give something to himself.

(41) $go^{?3}$ $gwaa^4$ $sa^{?}\tilde{a}h^{32}$ $m\tilde{a}^3$ $ma^{3?}\tilde{a}^{13}$ $zo^{?3}$ a^{32}
     gave John   money to   self-of 3sm decl

     'John gave the money to the very man'.

In his typology of reflexives, Faltz found two syntactic parameters to be especially significant: obedience to the subject antecedent condition, and obedience to the strict clause condition (1977:76–77, 99–102). The subject antecedent condition states that the antecedent of a reflexive must be the subject, and the strict clause condition states that reflexive marking must be used whenever the coreferent noun phrases are in the same clause. Faltz's fundamental typology of noun-phrase-like reflexives is between those that are pronominal and obey both conditions, and those that are compounds and obey neither (1977:108): German is an example of the first type, and English is an example of the second type. Trique clearly falls in the second type and thus agrees with Faltz's predictions. It has a compound reflexive in that it combines $ma^{3?}\tilde{a}^{13}$ with some other element; it does not require a subject as antecedent, as shown by sentences (32)–(34); and it does not require reflexive marking in all cases of coreference within the clause, as shown by sentences (25) and (26).

3. Reciprocals. Copala Trique reciprocals nearly always employ the inherently possessed noun $tuwi^{?3}$ 'companion of'. This word occurs in two distinct constructions: a syntactic reciprocal and a lexical reciprocal.

The syntactic reciprocal is freely generated in any nonsubject position by using a noun phrase with $tuwi^{?3}$ as its head and a plural noun phrase that has an appropriate subject antecedent as its possessive determiner.

Such consturctions are, however, ambiguous between a reciprocal read-
ing and a literal, compositional reading. Consider sentences (42) and (43):

(42) *tia$^{?3}$ nih^3 ša^{3}na^1 mã^3 tuwi$^{?3}$*   *nih^3 no$^{?3}$ a^{32}*
      tease the-pl woman to   companion-of the-pl 3sf   decl

      'The women tease each other' or 'The women tease their com-
      panion(s)'.

(43) *kira?ãh^5 nih^3 šnii^3 ga^2 tuwi$^{?3}$*   *nih^3 šnii^3 a^{32}*
      danced the-pl child with companion-of the-pl child decl

      'The children danced with each other' or 'The children danced
      with their companion(s)'.

Note that it is not necessary for each child to dance with every other
child, nor even for each child in the group to be dancing with some
others for the reciprocal form to be appropriate.

When the quantifier *?o^2 ?o^2* 'each' precedes the subject of a sentence
with *tuwi$^{?3}$*, the reciprocal reading is far more likely, though not forced.

(44) *tia$^{?3}$?o^2 ?o^2 nih^3 ša^{3}na^1 mã^3 tuwi$^{?3}$*   *nih^3 no$^{?3}$ a^{32}*
      tease one one the-pl woman to   companion-of the-pl 3sf   decl

      'The women all tease each other' or 'The women each tease their
      companion(s)'.

(45) *kira?ãh^5 ?o^2 ?o^2 nih^3 šnii^3 ga^2 tuwi$^{?3}$*   *nih^3 šnii^3 a^{32}*
      danced one one the-pl child with companion-of the-pl child decl

      'The children all danced with each other' or 'The children each
      danced with their companion(s)'.

In sentences (44) and (45) a compositional reading that is truly distinct
from the reciprocal reading can be sustained only if the discourse con-
text provides a referent for *tuwi$^{?3}$* that is someone other than women in
(44) and other than children in (45).

The syntactic reciprocal construction is more restricted than the re-
flexive. Reciprocals obey the clausemate condition, Faltz's subject ante-
cedent condition, and Chomsky's first binding condition. For these
reasons there are no reciprocal counterparts to sentences (29) or (32)–
(34). If *ma$^{3?}$ã^{13}* 'self-of' is replaced by *tuwi$^{?3}$* 'companion of' in these
sentences, and the antecedent and anaphor are pluralized, the resulting
sentences are grammatical, but they have only the compositional read-
ing. Compare sentences (46) and (47) with sentences (29) and (32),
respectively:

(46) *ne?e^3 gwaa^4 ga^2 pe^{3}dro^4 ze^{32} waa^{32} ra^{2}kwih^5 li^{3}na^4 mã^3*
      know John and Peter   that there-is will-help Kathleen to

$tuwi^{93}$ roh^1 $zo^{93} a^{32}$
companion-of the-dual 3sm decl

'John and Peter know that Kathleen will help their companion(s)'.

(47) $kene^9e^3 reh^3$ li^3na^4 ga^2 li^3ta^4 $m\tilde{a}^3 tuwi^{93}$
saw   father-of Kathleen and Margaret to   companion-of

roh^1 $no^{93} a^{32}$
the-dual 3sf decl

'Kathleen's and Margaret's father saw their companion(s)'.

Like reflexives, syntactic reciprocals can be accounted for by generating a special possession phrase freely in all noun-phrase positions, in this case a phrase with $tuwi^{93}$ as the head noun. Reciprocal noun phrases are therefore not a separate class of elements, but rather one interpretation of some $tuwi^{93}$ phrases. For each sentence that contains a $tuwi^{93}$ phrase outside the subject that agrees in person, gender, and number with the subject, there is an anaphoric, reciprocal interpretation in addition to the literal, compositional interpretation.

The lexical reciprocal is an idiomatic construction that consists of *verb* $+ tuwi^{93}$ or of *verb* $+ body part + tuwi^{93}$. It is parallel in structure to a number of other *verb* $+ X$ idioms, in which X may be a noun, a verb, an adjective, or an adverb. Such constructions have noncompositional meanings and must be listed in the lexicon; they function like compounds except that they consist of more than one word. Examples of *verb* $+ X$ idioms follow:

(48) $\check{c}ee^5$ kwa^3yo^4
walk horse
'to crawl'

(49) $a^9mii^{32} unu^{93}$
speak fight
'to argue'

(50) $nuu^{32} za^{91}$
be-in good
'to be put away inside'

(51) $\check{c}ee^5$ $rukwa^9\tilde{a}\tilde{a}^1$
walk together
'to walk side by side'

Lexical reciprocals, unlike other *verb* $+ X$ idioms, often have predictable meanings, but they must all be listed in the lexicon because their existence cannot be predicted. Only verbs that express concepts that are

often reciprocal enter into such lexical constructions. Some examples of *verb* + *tuwi^{23}* lexical reciprocals are:

(52) *ano^4 tuwi^{23}*
     grab companion-of
     'to fight with each other'

(53) *nari^{23} tuwi^{23}*
     find   companion-of
     'to meet each other'

(54) *rakwih^5 tuwi^{23}*
     help   companion-of
     'to help each other'

(55) *ni^{3}kah^2 tuwi^{23}*
     have   companion-of
     'to live together, to be spouses'

These idioms function like intransitive verbs that require plural subjects:

(56) *kano^4 tuwi^{23} roh^1 zo^{23} a^{32}*
     grabbed companion-of the-dual 3sm decl
     'The two of them had a fight with each other'.

(57) *ra^{2}kwih^5 tuwi^{23} tarã^{23} nih^3 zo^{23} a^{32}*
     will-help companion-of all   the-pl 3sm decl
     'They will all help each other'.

Some examples of *verb* + *body part* + *tuwi^{23}* lexical reciprocals are:

(58) *nata^{23} šaa^5 tuwi^{23}*
     be-on-top-of back-of companion-of
     'to be stacked on top of each other'

(59) *ta^{2}aa^{32} ra^{2}a^3 tuwi^{23}*
     grab   hand-of companion-of
     'to shake hands with each other'

(60) *a^{2}mãã^3 ra^4 tuwi^{23}*
     heats   inside companion-of
     'to become angry with each other'[9]

---

[9] The word *ra^4* 'inside' used to be a body-part noun meaning 'heart of', but it has been replaced in this use by a Spanish loanword. It survives as a preposition meaning 'in' and in certain idiomatic verb constructions, such as *a^{2}mãã^3 ra^4* 'to become angry', where it turns a verb with a physical reference into an expression denoting an emotional state.

(61) *no⁴   ši²nuu⁵ tuwi²³*
be-stuck side-of companion-of
'to be side by side with each other'

Like the simple *verb + tuwi²³* idioms, these function like intransitive verbs that require plural subjects:

(62) *ta²aa³² ra²a³   tuwi²³   roh¹   ša³na¹ a³²*
grab   hand-of companion-of the-dual woman decl
'The two women shake hands with each other'.

(63) *nata²³   šaa⁵   tuwi²³   yãh³ a³²*
are-on-top-of back-of companion-of paper decl
'The books are stacked on top of each other'.

Note that the subject of sentence (63) is not overtly marked for plural. Because Trique has no noun inflection to indicate number, a simple noun stem can have either singular or plural meaning, depending on the context. In sentence (63) the reciprocal verb idiom forces the plural reading for the unmarked subject.

Each intransitive sentence with a reciprocal idiom corresponds to a transitive sentence in which *tuwi²³* is the head noun of the direct object. The surface string that occurs in such a transitive sentence differs from the string that occurs in the corresponding intransitive sentence mainly in having an extra noun phrase (the subject) between the verb and *tuwi²³*. Compare sentences (64) and (65) with sentences (57) and (63):

(64) *ra²kwih⁵ tarã²³ nih³   zo²³ mã³ tuwi²³   tarã²³ nih³*
will-help all   the-pl 3sm to   companion-of all   the-pl
zo²³ a³²
3sm decl
'They will all help each other' or 'They will all help their companion(s)'.

(65) *nata²³   yãh³ šaa⁵   tuwi²³   yãh³ a³²*
are-on-top-of paper back-of companion-of paper decl
'The books are stacked on top of each other' or 'The books are stacked on top of their companion(s)'.

Even though sentences (64) and (65) have both readings, they are more likely to be assigned the compositional one, simply because a specialized reciprocal form exists. Note, however, that there is little, if any, difference in reference between the two readings of sentence (65).

It is tempting to speculate that sentences with lexical reciprocals are transformationally derived from their transitive counterparts because the

surface strings have only one major difference (the presence of an additional noun phrase in the transitive sentences). While I reject this analysis as a synchronic process in Trique, largely because it is not fully productive, it seems clear that such a process was the historical source of the lexical reciprocals. See the discussion in **4**.

There are a few *verb* + *X* idioms that are reciprocal in meaning, but which have a symmetric kinship term instead of *tuwi$^{?3}$*. Examples:

(66) *tah^{32} ma^{3}ne^4*
     say   comadre-of
     'to call each other comadre'

(67) *ũũ^3 bah^5*
     become compadre-of
     'to become compadres of each other'

Like lexical reciprocals, these idioms function like intransitive verbs that require plural subjects:

(68) *tah^{32} ma^{3}ne^4 ni$^{?4}$ a^{32}*
     say   comadre-of first-person-plural-inclusive decl
     'We call each other comadre'.

(69) *gũũ^3 bah^5 roh^1 zo$^{?3}$ a^{32}*
     became compadre-of the-dual 3sm decl
     'They became compadres of each other'.

4. Diachronic perspective. The history of the present system of reflexive marking in Copala Trique seems fairly clear. It is almost certainly a development from emphatics, and, furthermore, it is almost certainly at an early stage in the process.

The following scenario seems plausible. For unknown reasons, perhaps because an earlier form of reflexive marking was lost through sound change, Copala Trique was left with no reflexive marking. Because the binding conditions (or something like them) represent a valid universal tendency, a language will, in the normal case, have some sort of reflexive marking. The absence of reflexive marking in Trique was, therefore, a highly marked situation. A significant gap existed, and one very plausible candidate to take on the function of a reflexive marker and so fill the gap was the set of emphatic forms. By their very nature, emphatic forms signal extra prominence, and a noun phrase that is anaphoric with the subject is likely to be given extra prominence precisely because it is an exception to the binding conditions. (The plausibility of emphatics as a source of reflexives is discussed in greater detail in Faltz 1977:239–42.) Emphatic forms therefore began to be used in

Trique for reflexive meaning, sporadically at first, but with gradually increasing frequency. They also continued to be used as pure emphatics, but in sentences in which a $ma^{3?}\tilde{a}^{13}$ 'self of' phrase agreed with a preceding clausemate noun phrase in person, gender, and number, the reflexive reading became more and more likely. Finally, a $ma^{3?}\tilde{a}^{13}$ phrase in the direct object that agreed with the subject lost the emphatic reading entirely.

At present, Trique shares certain similarities with an earlier stage of English. A consideration of Modern English, which is several centuries farther along in the development of reflexives from emphatics, may give us some idea of the kinds of future changes to be expected in Trique.[10] One set of changes would allow the binding conditions to operate freely. These include the obligatory use of $ma^{3?}\tilde{a}^{13}$ for reflexive meaning, and a reduction in the emphatic use of $ma^{3?}\tilde{a}^{13}$ as the reflexive use grows. Perhaps emphatics will become formally distinct from reflexives as they have in English (see the discussion in 2 above). Other possible changes would simply make the reflexive forms more frozen and grammaticalized. Perhaps $ma^{3?}\tilde{a}^{13}$ will fuse with pronouns to create a special series of reflexive pronouns; such a series may have irregularities in its formation. Trique reflexives are likely to become more limited in their distribution; they may, for example, acquire the clausemate condition or the subject antecedent condition. Perhaps certain verbs will come to take only reflexive objects, as English *perjure* now does.

One change that may seem likely for reflexives is the development of a *verb + $ma^{3?}\tilde{a}^{13}$* construction by analogy with the *verb + $tuwi^{?3}$* construction, but there are two reasons that this is not likely to occur. First, in spite of the considerable ambiguity that exists in theory in sentences containing $ma^{3?}\tilde{a}^{13}$, there is little serious ambiguity within most discourse contexts, and therefore no pressure to develop another form. Second, there already exists a construction in which $ma^{3?}\tilde{a}^{13}$ follows a verb, but in this construction $ma^{3?}\tilde{a}^{13}$ functions adverbially and means 'by itself' or 'without reason'. Some examples of this use are:

(70) $\check{s}a^{?3}$ $ma^{3?}\tilde{a}^{13}$ koh^{32} a^{32}
      split by-itself plant decl
      'The plant came up by itself'.

(71) $^{?}na^{?3}$ $ma^{3?}\tilde{a}^{13}$ $zo^{?3}$ a^{32}
      comes by-itself 3sm decl
      'He comes for no particular reason'.

---

[10] A useful summary of the history of the English reflexive is found in Faltz (1977: 210–13, 239–40, 242–44).

Perhaps some reader is wondering why I claim that reflexives come from emphatics, rather than emphatics from reflexives. I do so because the latter development would have no plausible semantic rationale, nor are any cases of such a development attested, to my knowledge. The claim that reflexives come from emphatics, on the other hand, is both semantically plausible and attested in at least English and Papago; see Faltz (1977:239, 244). Faltz in fact claims not only that the development of reflexives from emphatics is plausible and attested, but also that it is the only historical source for a certain kind of reflexive (1977:239–48).

Because Trique does not have this kind of reflexive, a digression is perhaps in order here. Faltz makes a distinction between what he terms "adjunct reflexives," in which a reflexive modifier occurs with a pronoun head, and "head reflexives," in which a special noun head, often modified by a possessive pronominal, marks reflexive meaning (1977:29–41). Old English *sylf*, which was originally an adjective, was an adjunct reflexive. Copala Trique *ma³ʔã¹³*, on the other hand, is a head reflexive. Even though Faltz believes that emphatics are the only historical source for adjunct reflexives, he seems reluctant to believe that head reflexives may also have emphatics as their historical source (1977:239–48), perhaps because his language sample contained no clear case of such a development. In Trique, however, we see a clear case of a head reflexive that is still used as an emphatic (but consider n. 8). It therefore appears to be the case that Faltz's claim that emphatics are the source of adjunct reflexives can be expanded to include head reflexives too.

The historical source of syntactic reciprocals in Copala Trique is not at present clear to me. I find the semantic gap between the reciprocal and compositional readings of a sentence to be intuitively somewhat greater than the gap between the reflexive and emphatic uses of *ma³ʔã¹³*. The most plausible hypothesis seems to be that the reciprocal reading developed via sentences in which the compositional and reciprocal readings were closely related or identical in reference, such as examples (44), (45), and (65).

The historical source for the lexical reciprocal is easier to determine: it almost certainly developed from the syntactic reciprocal via a kind of incorporation, perhaps because of the ambiguity of the syntactic reciprocal. My claim is based on two kinds of evidence: the existence of parallel kinds of incorporation within Copala Trique, and the existence of constructions parallel to the lexical reciprocal in related languages.

In Copala Trique there are various ways in which a noun may be incorporated into the verb complex; four of these ways are described in Hollenbach (1979). The kind of incorporation that is most like the lexical reciprocal involves sentences where the direct object of the verb is a

body part whose possessor is coreferential with the subject. Compare sentences (72)–(74) and sentences (75)–(77):

(72) *rii^{32}*   *zo$^{?3}$ čũũ^3 a^{32}*

takes-out 3sm wood decl

'He takes the wood out'.

(73) *?rii^{32}*   *zo$^{?3}$ taluh^5 zo$^{?3}$ a^{32}*

takes-out 3sm saliva-of 3sm decl

'He spits'.

(74) *rii^{32}*   *taluh^5 zo$^{?3}$ a^{32}*

takes-out saliva-of 3sm decl

'He spits'.

(75) *tigih^5 šnii^3 čũũ^3 yuweh^{32} a^{32}*

poked boy wood rock   decl

'The boy poked the rock with a stick'.

(76) **tigih^5 šnii^3 še$^?$e^4 šnii^3 yuweh^{32} a^{32}*

poked boy base-of boy rock   decl

'The boy kicked the rock'.

(77) *tigih^5 še$^?$e^4 šnii^3 yuweh^{32} a^{32}*

poked base-of boy rock   decl

'The boy kicked the rock'.

(In sentences 75 and 76 the direct objects of the Trique sentences are semantic instruments and are translated into English as instruments. In spite of their translations, however, they are direct objects in Trique syntax.) Sentence (76) is parallel in structure to sentence (75), but it is ungrammatical and must be replaced by sentence (77). Likewise, sentence (73) is parallel to sentence (72), but it is accepted by only a few speakers and is usually replaced by sentence (74). In the reduced sentences (74) and (77), the body part forms part of the verb complex, and the sentences have a degree of transitivity one less than their unreduced counterparts. This reduction is a productive process in Trique. The reduction found in lexical reciprocals compared with their syntactic reciprocal counterparts is essentially the same as the reduction in sentences (74) and (77), except that *tuwi$^{?3}$* is a kinship term rather than a body part. The reduction process for lexical reciprocals is, however, not productive.

Productive constructions parallel to the Copala Trique lexical reciprocal occur in a number of related languages. One of the two language groups most closely related to Trique is Mixtec, and in at least three

Mixtec languages, a word, usually of the form *tãʔã* 'companion' (tone omitted), is productively inserted after verbs to form reciprocals.[11] Even though *tãʔã* is not cognate with Trique *tuwiʔ³*, its use witnesses clearly to the antiquity of the reduced reciprocal pattern within the family. In Yatzachi Zapotec, a language more distantly related to Trique, reduced reciprocals based on a noun meaning 'companion' are the norm, and they are paralleled by optional reduced reflexives based on a noun meaning 'self' (Butler 1976:331, 334–35). It seems clear, therefore, that there is a tendency of considerable antiquity within the Otomanguean stock to form reciprocals in this way. It is not at present clear to me, however, whether the Copala Trique lexical reciprocal is a frozen remnant of a formerly productive pattern, or an early stage in the extension of an incorporation pattern used for body parts.

There are a number of questions about syntactic incorporation that merit further research. For example, is the tendency to incorporate nouns into the verb complex typical of VSO languages, or is it a quirk of the Otomanguean stock? What are the syntactic and/or semantic conditions that favor incorporation? What are the mechanisms by which it takes place? What is the relation between the kind of syntactic incorporation seen in Otomanguean and the morphological incorporation seen in other American Indian language stocks, such as Iroquoian (see, for example, Woodbury 1975)?

Can any predictions be made about future developments in Copala Trique reciprocals? It seems likely that the present syntactic reciprocal is unstable because of its ambiguity, and that future developments are likely to produce an unambiguous reciprocal form for all verbs. Such a change would allow the binding conditions to operate clearly. Perhaps some change in the syntactic form, such as the standardized correlative use of *ʔo² ʔo²* 'each' in the subject with *tuwiʔ³* in some other noun phrase, will come to have this function. Alternatively, new lexical reciprocals may be added to the lexicon, or the process of incorporation may become syntactically productive for reciprocals.

---

[11] These languages are Coatzospan Mixtec (Small 1978), Jamiltepec Mixtec (Johnson 1978), and Silacayoapan Mixtec (Shields 1978).

REFERENCES

AKMAJIAN, ADRIAN, AND ADRIENNE LEHRER. 1976. NP-like quantifiers and the problem of determining the head of an NP. Linguistic Analysis 2:395–413.

BUTLER, INEZ M. 1976. Yatzachi Zapotec reflexive constructions. IJAL 42:331–39.

CHOMSKY, NOAM. 1981. Lectures on Government and Binding. Dordrecht: Foris Publications.

————. 1982. Some Concepts and Consequences of the Theory of Government and Binding. Cambridge, Mass.: M.I.T. Press.

FALTZ, LEONARD M. 1977. Reflexivization: a study in universal syntax. Ph.D. dissertation, University of California, Berkeley.

HELKE, MICHAEL. 1973. On reflexives in English. Linguistics 106:5–23.

HOLLENBACH, BARBARA E. 1977. Phonetic vs. phonemic correspondence in two Trique dialects. Studies in Otomanguean Phonology, ed. William R. Merrifield, pp. 36–67. SILPIL 54. Dallas: Summer Institute of Linguistics and University of Texas at Arlington.

————. 1979. La incorporación a la frase verbal del trique de Copala. Memorias de la XV Mesa Redonda de la Sociedad Mexicana de Antropología, Guanajuato, agosto de 1977, vol. 3, pp. 9–14.

————. 1983. Primary and secondary linking of prosodic features in Copala Trique. Ms., University of Arizona.

JOHNSON, AUDREY F. 1978. A syntactic sketch of Jamiltepec Mixtec. Ms., Summer Institute of Linguistics.

RADFORD, ANDREW. 1981. Transformational Syntax: A Student's Guide to Chomsky's Extended Standard Theory. Cambridge: Cambridge University Press.

SHIELDS, JÄNA. 1978. A syntactic sketch of Silacayoapan Mixtec. Ms., Summer Institute of Linguistics.

SMALL, PRISCILLA. 1978. A syntactic sketch of Coatzospan Mixtec. Ms., Summer Institute of Linguistics.

WOODBURY, HANNI. 1975. Onondaga noun incorporation: some notes on the interdependence of syntax and semantics. IJAL 41:10–20.