Coreferentiality in Kuikuro
(Southern Carib, Brazil)

Bruna FRANCHETTO\textsuperscript{1}

\textit{UFRJ - CNPq}

This working paper is a tentative approach to the problem of coreferentiality in Kuikuro, a Carib language, spoken by three local groups along the Culuene river, north of the state of Mato Grosso, Brazil. Most part of the data used as examples come from sessions of elicitation work with Kuikuro consultants, but data from texts and spontaneous verbal communication are also used. The overall picture is still puzzling and confuse in some aspects; more data must be collected and all data must be checked. Nevertheless, I am sure that the interested reader will find some good insights and, above all, enough empirical material to think about.

The first part offers typological basic generalities needed for those readers who do not know the preceding "Ergativity in Amazonia" working papers. The protagonist of this, my third and last paper, is the bound morpheme \textit{tü(t)}. The second part deals, in its first section, with coreference inside the clause and, in this context, \textit{tü(t)} behaves like a classical or true anaphora, be it prefixed to a noun and then controlled by S (argument of a monoargumental verb) or A (external argument of a transitive verb), or prefixed to a verb, then changing its valency from a transitive to a derived intransitive with basic...
reflexive meaning. The second section deals with coreference between clauses; clauses linked by relations of subordination are distinguished from clauses linked by relations of coordination. Partial generalizations are given in each part or section. The last part of the paper is not really a final conclusion, but it is a question for the specialists on Carib languages about the richness and diffusion of tü(t)- forms in Kuikuro and, probably, in other sister languages.

Some conclusions can, nevertheless, be presented here, as answer to the question: what do the coreferentiality facts teach us about the syntactic nature of an ergative language like Kuikuro? My starting point is always a caveat, however, remembering what I said at the beginning of the 2003 paper: the word 'ergativity' is a big umbrella under which diverse, distinct and heterogeneous phenomena are often gathered on the base of any manifestation of identity between the famous S and P (or O), with A marked as having its proper and distinct identity. Back to the question on Kuikuro, I could offer now a non conclusive answer based exclusively on yet not exaustive data, those here examplified. Beyond the ergative morphological marking on nouns (morphological Case), Kuikuro reveals evidences of a kind of syntactic ergative alignment: identical nominalization of S and P/O; the special role of A as controller of the tü(t)- anaphora in inter-clausal coreferentiality; S and P/O behaving as internal argument of the verb, A behaving as external argument of the verb. On the other side, 'de-ergativization' suggests the existence of some backgrounded nominative alignment, less stronger than the ergative one. Before any diachronic explanation, I think that what is needed is a careful synchronic analysis of formal syntactic configurations and processes in order to understand what are our S, P/O and A (argumental structures), verbs, nouns, complementizers (the absence of), among other grammatical ' things'.

I. Typological generalities

The Kuikuro, Kalapalo, Nahukwa and Matipu people speak a language of the Carib family – the upper Xingu Carib language is one of the two southern branches of the carib family (Franchetto & Meira, 2005). The totality of the upper Xingu Carib population is around 900 people; the Kuikuro are nearly 500, living in three villages and a hundred live in other upper Xingu villages. There are two main dialectal variants: the one spoken by the Kuikuro and old Matipu, and that spoken by the Kalapalo, Nahukwá and young Matipu. These variants can be distinguished by lexical and rhythmic differences.
Kuikuro is a head final language and it is ergative from the point of view of the morphosyntactic typology. The general basic structure of the kuikuro sentence can be represented by the following formula:

\[
[XV] \\
(Y \text{heke}) Z [XV] Z (Y \text{heke})
\]

The internal argument (the unique argument of an ‘intransitive verb’ or the object of a ‘transitive verb’), is not morphologically marked for case and occurs strictly in pre-verbal position. The Agent is codified by a pospositional phrase, headed by \text{heke}, and behaves like an argumental adjunct. [XV] represents a syntactic unit, where the essential relation between a verbal head and its argument (S or P, in typological terms) is established, with their basic order and strict adjacency. (Y \text{heke}) is the causer (A), the external argument, occurring after the [XV] nucleus, in its pragmatically neutral position, or in the first position of the sentence, the place reserved to a focussed constituent. Z represents a crucial element of the sentence used as a real utterance. At the periphery between the core constituent [XV] and the FOCUSP (focalized constituent), deictics of proximity or distance (from the point of view of the subject of the speech act) plus the copular suffix -i, often accompanied by second position particles with epistemic and aspectual values, are almost obligatory elements in order to realize the predication \textit{hic et nunc}, a kind of ‘predicative anchor’, the actualization of the existential predication and referential act. Kuikuro people call these elements \textit{tisakisü enkgutoho}, “made for carry our words to the port (to the place of rest, where a trip comes to the end)”; they also say that a sentence without these elements is like a dead body, a skeleton without flesh and blood.

The internal argument forms a phonological unit with the verb and the same relation holds between any head and its argument. The phonological interpretation is sensitive to this primordial syntactic relation. The accent, which is generally on the penultimate syllable of the isolated word, moves to the last syllable of the argument and becomes the main accent of the phonological unit [XV]. The Cause/Agent marker, the postposition \text{heke}, has the meaning of the starting point or origin of the event or action that affects a Patient. In many cases this meaning does not match with our notion of ‘agent’; for example, the causer of a “say” verb is the interlocutor and not the locutor and the dreamer is the patient of whom makes him dream. \text{Heke} is also a kind of locative marker, with the meaning of measured distance between two points in the space, and it can be used to make an argument salient or focussed, as well as to mark the truth of an
utterance as asserting a first hand experience. The ergative ‘argument’ can be omitted without any change in the verb valency.

Nouns and verbs are open classes; adjectives, particles, adverbs and postpositions are closed classes (see Franchetto & Santos, 2002, Santos 2003 and Franchetto 2005/forthcoming for an analysis of lexical roots as non-categorized and nouns and verbs as output of morphosyntactic operations).

The verbal word is built from roots adding bound morphemes: derivational suffixes (verbalizers and nominalizers), valence change prefixes (detransitivizers) and suffixes (transitivizers), inflectional prefixes (person markers) and suffixes (moods, aspects, number). Derivational processes are extremely productive, especially verbalizations and nominalizations.

The person markers prefixes codify the absolutive argument. When they express a pronominal agent, they occur post-verbally, marked by the postposition heke. Kuikuro has a single set of prefixed person markers (reduced forms of the free pronouns):

<table>
<thead>
<tr>
<th></th>
<th>ABS</th>
<th>ERG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>u-</td>
<td>u-heke</td>
</tr>
<tr>
<td>2</td>
<td>e- (o-, a-, ∅)</td>
<td>e-heke</td>
</tr>
<tr>
<td>3</td>
<td>i-</td>
<td>i-heke</td>
</tr>
<tr>
<td></td>
<td>(is-, inh-, ∅ + lengthening of the vowel of the root second syllable, in some cases)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>ku- (kuk-)</td>
<td>kupehe</td>
</tr>
<tr>
<td>13(EXCL)</td>
<td>ti- (tis-)</td>
<td>ti-heke</td>
</tr>
</tbody>
</table>

3 coreferential (REFLEXIVE): t- (tü-)

Plural -ko, with nouns, pronouns and verbs, refers to the plurality of animate 'possessors' and animate S/O arguments. -ni only for posposition refers to the plurality of the pronominal (animate) argument (e-heke-ni, "2-ERG-PL").
Free pronouns:

<table>
<thead>
<tr>
<th></th>
<th>SING</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>uge</td>
<td>13 tis-uge</td>
</tr>
<tr>
<td>2</td>
<td>ege</td>
<td>2pl amago</td>
</tr>
<tr>
<td>3</td>
<td>ese (anim. prox.)</td>
<td>3pl ago</td>
</tr>
<tr>
<td></td>
<td>ekise (anim. dist.)</td>
<td>3pl akago</td>
</tr>
<tr>
<td></td>
<td>ige (inan. prox.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ege (inan. dist.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>anim. anaphoric: üngele</td>
<td>(ü)nago</td>
</tr>
<tr>
<td></td>
<td>inan. anaphoric: üle</td>
<td></td>
</tr>
</tbody>
</table>

Pronominal markers can be considered as arguments, since they occur in complementary distribution with full nominal phrases with the same syntactic function. There is no explicit morphological manifestation of agreement.

II. Coreferentiality

II.1 Intra-clausal coreferentiality: the prefix t- (tü-)

The personal marker t- (and its allomorph tü-, before stems beginning with consonant) is a bound (prefixed) third person coreferential or reflexive:

(1a)  u-inhatü-gü itsake-nügü u-heke
    1-hand-REL cut-PNCT 1-ERG
    "I cut my hand"

(1b)  * t-inhatü-gü itsake-nügü u-heke
    RFL-hand-REL cut-PNCT 1-ERG
    "He/she cut his/her my hand"

(1c)  t-inhatü-gü itsake-nügü i-heke
    RFL-hand-REL cut-PNCT 3-ERG

It is a 'true' anaphora: it must find its coindexed antecedent, and it is controlled, in a defined domain, that of the sentence. Let us examine its manifestations, first when it occurs as nominal prefix (II.1.1.), then when it appears as a detransitivizer prefixed to verbs (II.1.2). We will find it once more in inter-clausal coreferentiality (II.2), or, in other words, within complex sentences.
II.1.1 The control of reflexive: the 'subjecthood' of S and A (SN-heke):

If we consider the control of the reflexive as an evidence for attributing the status of subjecthood to the Kuikuro arguments (S, P/O, A), our data show that S and A could be defined as 'subjects'. In the example (2b), the anaphoric/reflexive is controlled by S (intransitive subject); in the examples (3b, 4b), it is controlled by A (transitive subject):

(2a) itu -na leha ihi -lü leha
3(⊘)village-ALL CMPL 3(⊘)run/away-PNCT CMPL
"he ran away to his village"

(2b) t- itu -na leha ihi -lü leha
RFL-village-ALL CMPL 3(⊘)run away-PNCT CMPL
"he ran away to his village"

(3a) i- muku-gu nakangu -ne -tagü i-heke
3-son -REL bathe -TR-CONT 3-ERG
"she is bathing her son"

(3b) tu- muku-gu nakangu-ne -tagü i-heke
RFL-son -REL bathe -TR-CONT 3-ERG
"she is bathing her son"

(4a) Sepe, heke i,-umu-gu ingunkgingi2-nügü
Sepe ERG 3-son-REL remember -PNCT
"Sepe remembered his son"

(4b) Sepe, heke t,- umu-gu ingunkgingi-nügü
Sepe ERG RFL-son-REL remember -PNCT
"Sepé remembered his son"

The following example shows the problem of coreference ambiguity when the subject A is a genitive construction containing two possible antecedents of t-, a fact that should be analyzed more carefully from the point of view of the overall structural configuration of these kind of sentences:

(5) Sepe mu-gu, heke t- u-ü ingunkgingi-nügü
Sepe son-REL ERG RFL- father remember -PNCT
"the son of Sepé remembered his father"

2 The verbal stem meaning "remember" could be analysed as the root ingu, "eye", followed by the verbalizer/instrumental -ki and the verbalizer -ngi-.
Observe in the following sentences - from (6) to (7c) - the facts relative to the verb **hangankgi**-³, 'forget', where the forgotten entity is codified as A, the original cause of the mental state 'forget':

(6)  kumanai  heke u-hangankgi-nügü
    beans   ERG 1-forget    -PNCT
    “I forgot the beans”

(7a)  Sepéj  heke  i₃-mu-gu  hangankgi-nügü
    S.    ERG 3-so -REL forget    -PNCT
    "his son forgot Sepéj"

(7b)  i₃-mu-gu  heke  i₃-hangankgi-nügü  itsuni-te
    3-son-REL  ERG 3-forget    -PNCT  forest-LOC
    “he₂ forgot his₂ son in the forest”

(7c)  t₃-umu-gu  hangankgi-ne-nügü  Sepeᵢ  heke
    RFL-son-REL  forget-TR-PNCT  S.  ERG
    "Sepeᵢ made hisᵢ son to forget himᵢ"  

(7d)  i₃-mu-gu  hangankgi-ne -nügü  Sepeᵢ  heke
    3-son-REL  forget    -TR -PNCT  S.  ERG
    "Sepeᵢ made his₃ son to forget him₃ᵢ"

Another interesting fact to be noticed is the agrammaticality of sentences like (8c), compared with the grammaticality of (8d), showing the nature of the plural marker (a last position suffix, -ko with nouns, -ni with postpositions) as an integral part of the pronouns referential value (this fact deserves a more careful investigation):

(8a)  kanga  ilande-lü₄  i-hekeni
    fish  cook -PNCT  3-ERG
    “they cooked the fish”

(8b)  tūᵢ₃-kanga-gü  ilande-lü  i-hekeᵢ
    RFL-fish -REL cook -PNCT  3-ERG
    "he cooked his/her own fish"

³ The verb "to forget" is formed by the root hanga, 'ear' plus the transitive verbalizer -ki- (Franchetto & Santos, 2003).
⁴ The verbal stem ilande is formed by the root ilaN- followed by the transitive verbalizer -te-. The intransitive verb "to cook" is formed by the root ilaN followed by the intransitive verbalizer -tuN-.
(8c) *tü₁-kanga-gü ilande-lü i-heke-ni₁
RFL-fish-REL cook-PNCT 3-ERG-PL
"they cooked their own fish / they cooked one the fish of the other"

(8d) tü₁-kanga-gü-ko₁ ilande-lü i-heke-ni₁
RFL-fish-REL-PL cook-PNCT 3-ERG-PL
"they cooked their own fish / they cooked one the fish of the other"

II.1.2 Detransitivization

Inside the clause, the coreference between A and P is codified by means of processes of detransitivization through verbal prefixes that show the presence or even the fusion of the person marker and the detransitivizer t-, our coreferentiality/reflexive marker. The result is a derived intransitive verb (see Franchetto & Santos, 2003, for a detailed description of the detransitivization processes in Kuikuro). The examples below illustrate the more common and transparent detransitivization processes:

(9a) kanga enge-tagü i-heke
fish eat -CONT 3-ERG
"he is eating (the) fish"

(9b) u-enge-tagü u-akunga-gü heke
1-eat-CONT 1-shadow/soul-REL ERG
"My shadow scared me"

(9c) ut- enge-tagü
1DETR-eat -CONT
"I am eating my own food (that I cooked)", "I am scared"

(9d) enaha et- ingi-ho-lü tunga ata, ege gele-ha et- enge-ho-lü
ADV 2DETR-see-HIP-PNCT water LOC you still-AFF 2DETR-eat -HIP-PNCT
"if you will see it in the water, then you will be certainly scared"

(10a) ekise ingunkgingi-nügü u-heke
he remember-PNCT 1-ERG
"he remembered me"

(10b) et- ingunkgingi-nügü
2/3DETR-remember -PNCT
"you/he/she remember"
II.2 Inter-clausal coreferentiality

II.2.1 Subordination

II.2.1.1 Nominalization as the strategy for relativization

We examine firstly the strategies used for relativization, characterized by: (i) different processes of nominalization sensitive to the function of the relativized argument or case recoverability strategies; (ii) differential participant nominalizers for A and S; (iii) a distinct strategy for P relativization; (iv) the fact that the referent of a participant nominalization cannot occur overtly within the nominalized clause; (vi) the preference or even the necessity to avoid heavy arguments, resulting in the extraposition of the nominalization to the end of the sentence (as exemplified in 12, 13, 18a, 19, 21b, 23, 24, 25b, 26). The alignment can be considered on one level nominative (A=S≠O/P), on the other level neither nominative nor ergative (S≠A≠O/P). Let us illustrate how Kuikuro treats the possibilities of coreferentiality in relativization:

- The relativization of S is done by means of internal (non-agent) argument nominalization codified by the circumfix t-V-nhü:

  **Coreferentiality S S:**

  (11a) ngene ekise-i [t- atsaku-nhü]
       animal he-COP NANMLZ-run -NANMLZ
       "it is an animal who runs"

  (11b) ngene ekise-i [t- atsaku-nhü -I]
       animal he-COP NANMLZ-run -NANMLZ-COP
       "it is/was an animal and it is/was the one who run/ran away"

  **Coreferentiality A S:**

  (12) itão heke Mutua ingi-lü, [t- ihi -nhü heke]
       woman ERG Mutua see-PNCT NANMLZ-run away-NANMLZ ERG
       "the woman who ran away saw Mutuá"

  **Coreferentiality O S:**

  (13) itão ingi-lü u-heke [t -atsaku-nhü]
       woman see-PNCT 1-ERG NANMLZ-run -NANMLZ
       "I saw the woman who ran (is a runner)"
Mutuá heke itāo ingi-lū [t-ügü-ninhü /t-ügünu hokongo] M. ERG woman see-PNCT NANMLZ-sick-NANMLZ/ RFL-sick on "Mutuá saw the woman who was sick"

- The relativization of A is done by means of agent nominalization codified by the suffix -ni:

Coreferentiality A A:
(15a) ?? u-ingantsu otomba -tagü itseke kuk-engen-i heke 1-sister kill(spirit)-CONT Beast 12- eat -AGNMLZ ERG "The Beast/Spirit who eats us is killing my sister"
(15b) ?? itseke kuk-engen-i heke u-ingantsu otomba-tagü
(15c) uingantsu otomtagü itseke heke, kukengeni heke

The almost unacceptability of (15a) and (15b) is due to the fact that structurally heavy arguments are always avoided; (15c) is the solution, where the heavy A is decomposed, and repeated, in its two elements, (itseke and kukengeni).

Coreferentiality S A:
(16) ku-gamaki -ni -ha ekise-i 12-knock down-ANMLZ-AFF he -COP "he is whom I knocked down"
(17) tis-ikutse-ni -mbüngü ekise-i 13-paint -ANMLZ-IND he -COP "he is the one who painted us"
(18a) itāo te-lū leha Mutuá ingi-ni -mbüngü woman go-PNCT CMPL M. see -ANMLZ-IND "the woman who saw Mutuá went away"
(18b) itāo heke Mutuá ingi-lū (e)te-lū hata woman ERG M. see -PNCT 3-go-PNCT when "the woman who(when) saw Mutuá went away"

Coreferentiality O A:
(19) Mutuá heke itāo ingilū kajü ilande-ni-mbüngü/ilande-ni-pe M. ERG woman see-PNCT monkey cook-ANMLZ-IND/cook-ANMLZ-ex "Mutuá saw the woman who cooked the monkey"
When the case is the relativization of P/O it is possible to find a non-agent nominalization, as exemplified in the sentences below:

(20a) imbe ngukau-gu tūi-pūgü u-heke ütinha atati pequi oil -REL put-PERF 1-ERG bottle ALL
"I put the pequi oil inside the bottle"

(20b) imbe ngukau-gu tsünale t-ūi-nhū-pe pequi oil -REL EV NANMLZ-put-NANMLZ-ex ütinha atati t- entsimbūki leha bottle ALL PASS-finish CMPL
"the pequi oil that was put inside the bottle is finished"

However, the most used strategy is markedly different: (i) the verb is prefixed by the Object Marker prefix ng-, occupying the unique slot for S or P/O personal pronouns bound forms, but it is not marked for Case, resulting in a pseudo-detran sitivized form that I prefer to call 'de-ergativized', where the A argument shows himself as the argument of a monoargumental verb, marked for the structural Case (absolutive); (ii) the verbal suffix is a pseudo-nominalizer with a perfect aspect meaning (-pūgü, and its allomorphs). This construction type is, nevertheless, a type of nominalization:

Coreferentiality S P/O:

(21a) Kuhija [ng-he -pūgü] tahitse-i K. OM-kill-PERF arara-COP
"the one that Kuhija killed is arara"

(21b) tahitse-ha ige -i [Kuhija ng-he-pūgü] arara -AFF DPROX-COP K. OM-kill-PERF
"this the arara that Kuhija killed"

(22) [u-ng-ikutse-pūgü] ekise-i 1-OM-paint -PERF he-COP
"he is the one I painted"

Coreferentiality O P/O:

(23) ohongo enge-lū u-heke [Buguna ng- ilande-pūgü] duck eat -PNCT 1-ERG Bruna OM-cook -PERF
"I ate the duck that Bruna had cooked"
(24) Mutúa heke itāo ingi-lü [i₁-nho ng-opokine-tühügü]
M. ERG woman see-PNCT 3-husband MO-leave-PERF
"Mutúa saw the woman whom her husband abandoned"

*Mutua heke itāo ingilü inho heke opokinetühügü
"Mutúa saw the woman whom her husband left"

(25a) [Ahukaka ng-humi-pügü] ingi-lü u-heke pape-i
A. MO-send-PERF see-PNCT 1-ERG paper-COP
"I saw what Ahukaka sent, it was a letter"

(25b) pape ingilü u-heke [Ahukaka ng-humi-pügü]
paper see 1-ERG A. OM-send-PERF
"I saw the letter that Ahukaka sent"

Coreferentiality A P/O:

(26) tū-ingü inkgati -tagü i₁-heke [tū-ng-konkgi-pügü]
RFL-cloth put to dry -CONT 3-ERG RFL- MO-wash -PERF
"He is drying his own clothes that he has washed"

In the sentence above, and if we compare it with (24), the fact that the ergatively marked A controls the anaphora (tū-) both as nominal prefix to the P/O verbal argument (tū-ingü) and as S of the de-ergativized nominalized (and extraposed) P/O relative [tū-ng-konkgi-pügü], is evidence of the subject nature of A, as well as of the inclusion of the nominalization inside the sentence domain.

- There are alternative strategies in order to express what we called 'relative constructions' (see the following sections on subordination):

Adverbial(ized) clause:

(27) itāo ingi-lü u-heke [atsaku-pügü atai leha]
woman see -PNCT 1-ERG 3run -PERF when CMPL
"I saw the woman who ran (specific event)"

(28) itāo ingi-lü u-heke [ihi -lü hata]
woman see-PNCT 1-ERG run away-PNCT run away-PNCT when
"I saw the woman who ran away"
Clause-like extraposed object:

(29) osi-ha ingi-gake [akaga et- uhute-pügü]
well-AFF see-IMPDIST jaburu 3DETR-gather-PERF
"look at the jaburu that are all gathered"

II.2.1.2 Subordination as clause-like argument:

In Kuikuro, a clause, without any nominalization of its verb, can be argument of the main verb of a sentence. As it is seen in the construction below, the adverbial complement of the subordinate verb (telü) is extraposed to the end of the sentence for the already known reason of avoiding heavy objects; nevertheless the 'possessor' of the extraposed complement of the postposition is an anaphora controlled by the subordinate S (toto):

(30) [toto telü] ingi-lü u-heke [tjūN-alüpenginhe]
man go-PNCT see-PNCT 1-ERG RFL-house-ABL
"I saw the man when he was going out of his house"

I submitted to our Kuikuro consultants a set of constructions with the verb 'to know' and its clause-like complement, in order to see the expression of different contexts for coreference. For some constructions, the interpretation and grammaticality judgments have been difficult and contradictory. Nevertheless, the data are interesting, despite the fact that they must be checked and deserve a much more careful analysis. For the moment, I can only offer a few observations on the control domain of the Kuikuro anaphora.

(31a) shows the preferred interpretation of the anaphora controlled by the A inside the clause-like complement, in the canonical OV position of uhu, 'to know' inflected for the Punctual aspect; but (30b) represents a not preferred, but possible, interpretation, where the controller is the A of the main verb (uhu):

(31a) [tū-kanga-gü ilande-lü Magiaj heke] uhu -nügü i-heke
RFL-fish -REL cook -PNCT M. ERG know-PNCT 3-ERG
"he knows (that) Magiaj cooked her fish"

(31b) ? [tū-kanga-gü ilande-lü Magia hekej] uhu -nügü i-heke

(31c) is a perfect and well accepted construction. It is particularly interesting because it shows that when the A (Magia heke) of the clause-like complement is extraposed to the end of the sentence, the only possible interpretation is that it is the main A (iheke) the controller of the anaphora in object position of the clause-like complement (tūkangagü):
(31c) \[\text{tù, kangagü ielande-lü} \ uhu-nügü \ i_{r}-heke, \text{Magia}_j \ 
\text{heke} \ RFL-fish \ 
\text{cook-PNCT} \ 
\text{know-PNCT} \ 
3\text{-ERG} \ 
\text{M.} \ 
\text{ERG} \ 
"\text{he}_i \text{ knows (that) Magia}_j \text{ cooked his}_i \text{ fish}"

(31d) shows that the disjoint reference inside the clause-like complement means the possible coreference with the main A:

(31d) \[\text{Magia}_j \text{ heke} \ i_{r}-\text{kanga-gü iandelü} \ uhu-nügü \ i_{j}-\text{heke} \ 
"\text{he}_i \text{ knows (that) Magia cooked his}_j \text{ fish}"

The constructions from (31e) to (32b) are other examples of the coreference domains:

(31e) \[\text{it}_k-\text{kanga-gü iandelü} \ uhu \ -nügü \ i_{r}-\text{heke-ni}_k \ 
\text{Magia heke} \ 
3\text{-fish-REL} \ 
\text{cook-PNCT} \ 
\text{know-PNCT} \ 
3\text{-ERG-PL} \ 
\text{M.} \ 
\text{ERG} \ 
"\text{they}_i \text{ know that Magia}_j \text{ cook his}_k \text{ fish}"

(31f) \[\text{it}_r-\text{kanga-gü iandelü Magia}_j \text{ heke} \ uhu-nügü \ i_{r}-\text{heke} \ 
3\text{-fish-REL} \ 
\text{cook-PNCT M.} \ 
\text{ERG} \ 
\text{know-PNCT} \ 
3\text{-ERG} \ 
"\text{he}_i \text{ knows that Magia is cooking his}_j \text{ fish}"

*itsangagü iandelelü uhuñügü iheke Maria heke

"he_i knows that Magia is cooking his_fish"

(32a) \[\text{it}_r-\text{hitsü-ko} \text{ heke} \ i_{r}-\text{kanga-gü-ko}_i \ 
\text{itakonkgi-lü } \ 
\text{-ingo} \ uhu \ -nügü \ i_{r}-\text{heke-ni}_i \ 
\text{3-wife -PL} \ 
\text{ERG} \ 
3\text{-fish-REL-PL} \ 
\text{exchange-PNCT-FUT} \ 
\text{know-PNCT} \ 
3\text{-ERG-PL} \ 
"\text{they}_i \text{ know (that) their}_i \text{ wives will exchange their}_j \text{ fishes}"

(32b) \[\text{it}_r-\text{hitsü-ko}_i \text{ heke} \ 
\text{tù}_j-\text{kanga-gü-ko}_i \ 
\text{itakonkgi-lü-ingo} \ uhu-nügü \ i_{r}-\text{heke-ni}_i \ 
\text{3-wife-PL} \ 
\text{ERG} \ 
RFL-fish-REL-PL exchange-PNCT-FUT know-PNCT 3\text{-ERG-PL} \ 
"\text{they}_i \text{ know that their}_i \text{ wives will exchange their}_j \text{ fishes}"

In the examples from (33a) to (34) the main verb is in a pseudo-non-finite form characteristic of most of the Carib languages: the root is circumscribed by the affixes \text{t(tù)-V-ti} (and its allomorphs); there is no other aspect inflection and the slot normally occupied by the paradigms of person markers is filled by a fixed form homophonous to the anaphora. I have no idea, at the moment, if it is a case of pure homophony or if there is some deeper link between these \text{tù- forms} ( and the many \text{tù- forms in Kuikuro}). In the construction \text{t-(tù)-V-ti}, the interesting fact is the phonological autonomy of P/O and its frequent post-verbal (not canonical) position. Some Kuikuro speakers were asked to judge and interpret constructions with clause-like complement of 'to know' verb in pseudo-non-finite-form and the results confirm the
observations already made on coreference domains and the nature of the anaphora:

(33a)  t-uhu-ti i-heke [kanga ilande-lü i-hisuü-gü heke]OBJ  
    ?-know-? 3-ERG fish cook -PNCT 3-sister-REL ERG  
    "she, knows that her, sister cooks fish"

(33b)  tuhuti i-heke [tü-hisuügü heke kanga ilandelü]  
    "she, knows that her, sister cooked fish"

(33c)  t-uhu-ti i-heke [Magia heke i-kanga-gü ilande-lü -ingo]  
    ?-know-? 3-ERG M. ERG 3- fish -REL cook -PNCT-FUT  
    "he, knows that Magia will cook his fish"

(33d)  [tü-kangagü ilandelü Maria heke] tuhuti i-heke  
    "he, knows that Magia, cooks her, fish"

(34)  isi heke t-uhu-ti [t-i-umuku-gu inkuki-lü]  
    mother ERG ?-know-? RFL-son-REL take care-PNCT  
    "The mother knows how to take care of her son"

II.2.1.3 Subordination as adverbial clauses

In this section I present the coreference domains in constructions where the subordination is encoded by clausal-like complement of postpositions, resulting in clauses with adverbial role in complex sentences. The constructions from (35) to (46) are examples of the general syntactic rules that hold for the coding of coreference in certain subordinate adverbial clauses. These rules are summarized in the following points: (i) obligatory equi-A deletion, or deletion of the (pronominal) A when it is coreferent with A of the main clause, as one can see comparing (40a) with (41b); (ii) impossibility of the deletion of S of the subordinate clause even if it is coreferent with A or S of the main clause, as in (43) and (44); (iii) impossibility of the deletion of A of the subordinate clause if it is coreferent with S of the main clause as in (46). Remember that the person marker slot must be always filled, be it an S or an P/O, but A can disappear without consequences. On the other hand, there is another type of subordinate adverbial clauses, exemplified from (47a) to (49), whose borders seem to be transparent for the control relation of the S anaphora prefixed to a subordinate intransitive verb.
-tomī purpose/goal/aim (FIN):

The sentences from (35) to (38) reveal that the adverbialized clauses with the postposition -tomī seem to be opaque domains for the control of anaphora in S position. (36b) shows the use of the discourse level anaphoric free pronoun (üngele) in order to make coreference between the A of the main verb (kilü) and the S of the subordinate verb (-katsuN-):

"they exchanged their own fishes for the other's wife to cook (them)"

(36a) Sepe, ki -lū Mutua, heke [i,-katsuN-tomī] Sepe, say-PNCT Mutua, ERG 3-work -FIN
"Sepe, said to Mutua, that he would work"
(lit. Mutua, made Sepe, say to he, work)

(36b) Sepe, ki -lū Mutua, heke [üngele, i,-katsuN-tomī] Sepe say-PNCT Mutua ERG AN 3-work -FIN
"Sepe, told Mutua, to work"
(lit. Mutua, made Sepe, say to he, work)

(37) itāo, heke tū,- nho, tu -nūgū [ē,-te-tomī hiutesanegu -na] woman ERG RFL-husband give-PNCT 3-go-FIN Rio de Janeiro-ALL
"the woman let her husband go to Rio de Janeiro"

(38) Laualu, ki -lū [i,-katsu -ki -tomī leha] L. say-PNCT 3-work-VBLZ-FIN CMPL
"Laualu said that she want to stop work"

(39) is a dataum to be checked, but it seems to show that the anaphora tū- prefixed to the Object of the subordinate verb (ilande-), whose A is pronominal and post-verbal, can be controlled by the coindexed A, the external subject, of the main verb (itūinjū), in initial position of the sentence:

"Jumu, doesn't accept that Magia will cook his, fish"
(lit. Jumu, didn't answer to Magia, for her to cook his, fish)

-ki Instrumental (INST):

The examples from (40a) to (40d) show another type of adverbial clause, that with the postposition -ki, whose meaning is the instrument or mean or
reason by which some event or action occurs. Once more, it seems that the adverbial clause constitutes the domain for the control of the anaphora. (40b) and (40c) show that the equi-A deletion is the rule in the adverbial clause; it is, then, a PRO who behave as the controller of the anaphora (40b):

(40a) i₇-hüsu-ki-tsagü Maria heke [tü₇-kanga-gü ilande-pügü-ki i₇-heke] 3-shame-VBLZ-CONT M. ERG RFL-fish-REL cook-PERF-INST 3-ERG "Magia made him ashamed with his cooking of his fish"

(40b) i₇-hüsu-ki-tsagü Magia₇ heke [tü₇-kanga-gü ilande-pügü-ki PRO] "Magia made him ashamed with her cooking of her fish"

(40c) i₇-hüsu-ki-tsagü Magia₇ heke [i₇-kanga-gü ilande-pügü-ki PRO] 3-shame-VBLZ-CONT M. ERG 3-fish-REL cook-PERF-INST "Maria made him ashamed with the cooking of his fish"

(40d) Magia₇ hüsu-ki-tsagü [tü₇-kanga-gü ilande-pügü-ki i₇-heke] "Magia is ashamed with her cooking of her fish"

**hata** 'when':

The constructions from (41a) to (45), with **hata** adverbial clauses and (46), with another posposition of the semantic field of 'temporal relations' are all clear examples of the general syntactic rules mentioned in the introduction of this section:

(41a) Mutuá₇ heke itão₇ ingi-lü [kajü ilande-lü-hata i₇-heke] M. ERG woman see-PNCT monkey cook-PNCT-when 3-ERG "Mutuá₇ saw the woman who/when she was cooking the monkey"

(41b) Mutuá₇ heke itão₇ ingilü [kajü ilandelü hata PRO₇] "Mutuá₇ saw the woman when he was cooking"

(42) e₁-ingi-lü-ha ege-i u-heke [hügeku tu-nügü hatai e₁-heke leha] 2-see-PNCT-AFF DDIST-COP 1-ERG headdress give-PNCT when 2-ERG CMPL "I saw you when you were selling the headdress"

(43) hūati₁ heke-ha ege-i toto₇ hekute-lü [is₇-ügünuN-hata] shaman ERG-AFF DDIST-COP man cure-PNCT 3-sick-when "the shaman cured the man when he was sick"

(44) toto₇ ha ingi-lü-ha ege-i u-heke [is₇-ügü-lü-ki-nguN-ko₇-hata] man-AFF see-PNCT-AFF DDIST-COP 1-ERG 3-hook-REL-INST-VBLZ-PL-when "I saw the men when they were fishing"
(45) itāŋi ingi-lū-ha ege-i i-heke [kanga ilande-lū hata i-heke]
    woman see-PNCT-AFF DDIST-COP 3-ERG fish cook-PNCT when 3-ERG
    "She saw/know the woman who/when she was cooking the fish"

-nginxhe 'after'

(46) tā- ihi leha [kamisa imbi-pūgū-nginxhe i-heke]
    PASS-run away-PASS CMPL shirt stil-PERF-after 3-ERG
    "he flew after he had stolen the shirt"

-ti Desiderative (DES):

- ti and -ale constructions are members of another set of adverbial clauses
  where the control of the anaphora in S position of the subordinate verb is
  allowed:

(47a) Mutuá i-tsgū [Laualu ingi-lū-ti PRO]
    M. be-CONT L. see-PNCT-DES
    "Mutuá wants to PRO see Laualu"

(47b) Mutuá i-tsgū [tā- ihi -lū -ti]
    M. be-CONT RFL-run away-PNCT-DES
    "Mutua wants to PRO run away"

(47c) Mutuá i-tsgū [Laualu te-lū-ti]
    M. 3-be L. go-PNCT-DES
    "Mutuá wants that Laualu goes away"

(47d) i-tsgū [Mutuá telū-ti]
    "she wants that Mutua goes away"

(48) akago i-tsgū [kangaki ti-te-lū -ko-ti]
    they be-CONT fish-INST RFL-go-PNCT-PL-DES
    "they want to go fishing" (lit. they are wanting to go with fish)

-ale 'while':

(49) isŋünkgū-tagū-ko [tā- iginal(u)-ale isŋi-i-nūN-hata]
    3-sleep-CONT -PL RFL-sing -while 3-come-PNCT-when
    "they, were sleeping when they came singing"
II.2.3 Coordinated clauses:

(50) shows a typical ambiguity that arises in coordination when the second sentences has an intransitive verb whose S is coreferent with an argument of the first clause:

(50) itāo heke; ekege; ingi-lū ihi -lū; leha
woman ERG jaguar see -PNCT 3 run away-PNCT CMPL
"the woman saw the jaguar and she/it ran away"

Our Kuikuro consultants interpreted (51a) and (51b) as having unequivocal meanings: the anaphoric 'possessor' of the complement of the postposition ake, in the second clause, must be controlled by the A and cannot be controlled by P/O of the first clause:

(51a) ijali; ingi-lū heu; heke ihi -lū leha t3-umu-gu ake
tapir see-PNCT peccari ERG 3 run away-PNCT CMPL RFL-son-REL COM
"the peccaryj saw the tapir; and itj (the peccary) ran away with itsj son"

(51b) ijali; ingi-lū heu; heke ihilū leha i1-mugu ake
tapir see-PNCT peccary ERG run CMPL 3-son COM
"the peccaryj saw the tapir; and iti (the tapir) ran away with itsi son"

In (52) the coreference between the two S is clear by means of the plural marker -ko; nevertheless pay attention to the complete meaning of the whole complex sentence:

(52) ijali-koi eti- ingi-lū heu ake ihi -lū -koi leha
tapir-PL 3DETR-see-PNCT peccary COM 3 run away-PNCT-PL CMPL
"the tapir and the peccary saw one another and they ran away"
"(the tapir ran away in one direction and the peccary in the opposite direction)"

Complement of SAY verbs:

I would like to leave here some examples of constructions with 'say' verbs and their complements. These data seem to confirm the generalizations made until now:

(53) apa; heke u-ki -lū wāke i1-tehesuN-ho -tagū
father ERG 1-say-PNCT EV 3-travel -HIP-CONT
"I told my fatheri that he; would travel"
(lit. My father; made me say hei would be travelling)
"I told to my father that he would travel"
(lit. My father made me say that he is the future traveller)

"Sepe told Mutua to travel"
(lit. Mutua made Sepe say to he travel)

"My father was telling that the white people were beating him;"
"my father was telling that he was beating the white people"

III. Questions for Caribanists

The proliferation of t(tü)-forms in Kuikuro is absolutely surprising and puzzling. Are they all simple homophones? We saw t(tü)- as 'true' anaphora prefixed to nouns and verbs and as in t(tü)-V-ti verbal form I called, tentatively, 'pseudo-non-finite'. Like in other Carib languages, the latter is characterized by the absence of aspectual inflection; the person marker slot is filled exclusively by a generic and fixed t(tü)-form. In Kuikuro it occurs as verb of a main clause, but with the meaning of a temporal or logical dependence from an immediately preceding event or action. My tentative gloss is PASS, 'past';

"they swept the plaza, finish!"
"then they entered inside the men's house"

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5 Remember that in Kuikuro there is no temporal, but only aspectual, verbal inflection. Aspects have secondary (inferred) temporal meanings: Punctual Aspect can be interpreted as atemporal present or generic past or future, when followed by the suffix -ingo; Continuative Aspect has an inherent temporal dimension unspecified for present or past or even future.
The form t(tü)-, roughly glossed GO (General Object), can codify the anaphoric object in a coordinate construction:

(58) kusu₁ e-lű kagaiha heke, lepene t₁-enge-lű leha i-heke mutum kill-PNCT White ERG, then ANO-eat-PNCT CMPL 3-ERG

And we saw t- as a valency change marker for derived intransitive verbs, with reflexive or reciprocal meaning, or, more generally, for derived detransitivized verbs.

It seems that the homophony hypothesis does not capture the common semantic (and syntactic) essence of these forms.

References


## List of Interlinear Glosses

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