

renguardosuya' nasa iisa ty ciaambu atu'.
renewation-in person each they staff-of-office carry.

Cyaa ciaambu yu's- a' baston tyi yase'.
That staff-of-office (theme) (topic)-baston they name.

Cyaa baston yu' -- palma chundana u'tsrra', jycuette
That baston (theme) palm shonta, carving-SS, tip-on

viyu-chijme pjaatnisa piyaje 'viyu-chijme i' sultyjita
silver hammered middle-in/silver came ring

na'we fyutsni ty, qui'pu'. Cyteea' cordon beesa
like-one nailed they put. There cord red-one

tséysa na'we ty tundu', cordon vittsu cjasas'
blue-one thus they tie, cord tips-on root

ach-na'we umnisa. Cyaa yu' autoridad atni'
hammer-straped women. That (theme) officials to-carry

jity. Cyas' abra ty cabildu-nasa maa
they-say. That carrying-SS they town-officials some

f' waij iwach iwa' qu'i, sa' maava
(intens.) more proud they are and-SS whoever

uyocin basu era era era era. Cyawé yuurra
so-may-bee in-open carrying-SS they go. Thus doing-SS

hasta Payan pa' iyava ra's atni' ty u'juel'.
to Payan to leave that carrying-SS they go.

Pestalsa' era era era era.
Leave-officials stop stop stop stop-SS,

fytucueráava ats' ty
stick-only come

DISCOURSE GRAMMAR:

STUDIES IN INDIGENOUS LANGUAGES

OF COLOMBIA, PANAMA, AND ECUADOR

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DISCOURSE GRAMMAR:

STUDIES IN INDIGENOUS LANGUAGES

OF COLOMBIA, PANAMA, AND ECUADOR

Robert E. Longacre, editor

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Summer Institute of Linguistics

and

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| 11 Guayana Janet Brown | 25 Northern Baniwa Joel and Nancy Elliott | |
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Results of a Tucanoan Syntax Questionnaire Pilot Study
Birdie West

This paper--a unique contribution to the project--reports a pilot study in which: (1) Longacre's catalogue of inter-clausal relations was taken as a given; (2) examples of sentences and paragraphs encoding these relations were culled out of text material in the Tucano language (a lingua franca of the Vaupés region of Colombia); then (3) examples were worked up into a syntax questionnaire; and (4) multilingual speakers rendered them into their first languages. The purpose was to see how a notion such as causative and contrafactuality would encode in related languages of an area. Some notions, e.g., encode only as paragraph, others as sentence structures, and some as sentence or paragraph. Incidental to the purpose of the paper, a sketch of Tucano sentence and paragraph structure is included with the probability that many of these structures are general Tucanoan. A copy of the actual questionnaire (with translation into English) is appended.

This pilot study is suggestive of what could be done in many linguistic areas of the world to work out viable syntactic questionnaires (free from some of the difficulties encountered in the present study) and use them in projects embracing more languages than those represented here.

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0. Introduction

In the Vaupés region of southeastern Colombia there are fourteen languages belonging to the Eastern Tucanoan language family. Because the tribal groups practice exogamy there is widespread multilingualism among the speakers of the languages. Every person speaks at least two languages and usually several more. A child learns to speak his mother's language as well as his father's language and any languages in the local area.

One of the Tucanoan languages, Tucano, serves as the lingua franca for much of the area, particularly the Papurí River and its tributaries. If neither of a child's parents are Tucano he will learn to speak Tucano as well. For a more complete treatment of the subject of multilingualism see Sorensen (1967) and Jackson (1972).

1. Purpose

In a multilingual situation how does one test the mutual intelligibility of the different languages? Comparing lists of words is the method most often used. This is useful for comparative purposes but does not test how well one speaker can understand a speaker of a different but related language. Nor does it tell how the syntactical structures of one language compare to another. Therefore a syntax questionnaire was compiled using the notional categories described by Robert E. Longacre (1976:Chapter 3).

The purpose of this paper is to describe and evaluate the questionnaire as well as the catalogue of deep structure notions used as a basis for the questionnaire.

Questions which need to be answered are:

- 1) How adequate is the catalogue of deep structure notions for Tucanoan languages?
- 2) Into what kind of surface structures are these notions encoded?
- 3) Are they encoded differently in different languages?
- 4) Which parts of the questionnaire were easy to fill out?
- 5) Which parts were the most difficult?
- 6) What does this tell us about the encoding of the notions in Tucanoan languages?
- 7) Of what value is the questionnaire?
- 8) In what way is it useful?

2. Procedure

2.1 Making the Questionnaire

The questionnaire was compiled during a discourse analysis workshop by linguists studying three of the Tucanoan languages: Richard Smith, Southern Barasano; Nate Waltz, Guanano; and the author, Tucano.

We looked in native recorded texts for examples of the deep structure notions and used these as the basis for the questionnaire. All of the examples were translated into Tucano because many of the Indians know it and because this helped give the other linguists an idea of the forms in the original examples from the texts.

Recordings were made of each translation in order to be used as a test of mutual intelligibility of the languages at a future date. The recordings will be played to speakers of each of the languages. They will translate each example into their own languages. Then the translations will be scored to see how accurately they understand the recording.

This paper will be handling only the results of the first phase of the testing, that of the translation of the questionnaire into nine Tucanoan languages¹ and noting what changes were made in the translation.

2.2 Content of the Questionnaire

A copy of the questionnaire is given in the Appendix. The deep structure notions used as a basis for the questionnaire have to do with the relationship between predications. Longacre posits eight types of relationships: conjoining, alternation, temporal, implication, paraphrase, illustration, deixis and attribution. There is another relationship, frustration, which intersects with many of the above types.

Three types of conjoining are posited: coupling, contrast and comparison. Coupling has to do with 'and'--type relations between any number of predicates where there is no temporal involvement. Contrast includes 'but'--type relations between two predicates. Comparison involves degree conjoining; that is, the point of comparison is that there is a difference in the degree of what is being compared. Typically the comparison relationship occurs between two predicates.

Alternation includes deep structure 'or'--type relations between two predicates or among several predicates. No examples of deep structure alternation were found in any of the texts. In conversation some use of the Spanish *o* 'or' has been observed.

Two types of temporal relations are posited: overlap and succession. Overlap includes 'meanwhile' and 'at the same time' relations. Succession includes 'and then' relations between predicates with one activity following another.

Implication involves 'if...then...' relations between predications and includes conditionality, causation, contrafactuality, and warning. Conditionality includes hypotheticality, conditions with universal quantifiers such as 'wherever', 'whomever', etc.,

contingency, 'when...then...' and proportions such as 'the bigger they are, the harder they fall'. Only hypotheticality is included in the questionnaire.

Causation includes efficient cause, final cause (purpose), and circumstance. Efficient cause is the 'because' relation between predications. Final cause is the 'in-order-to' relation between predications. Circumstance is a weakened variety of the 'because' relation indicating 'in the circumstances that', 'since', etc.

Contrafactuality is a variety of double talk in that both predications of a contrafactual sentence imply the opposite to what is being stated. Negative statements in either base imply positive statements and vice versa. For example, in the sentence 'If it had not rained your house would have burned', the first predication is negative and implies the positive statement 'it did rain'. The second predication is positive but implies the negative statement 'your house didn't burn'. Further, the relation between the two predicates implies efficient cause. Notice the example 'If it had not rained your house would have burned' implies 'It did rain and because it rained your house didn't burn'.

Warning involves the relation between a predication which expresses obligation in regard to a course of action and a predicate which implies an undesirable result if the obligation of the first predicate is not carried out.

Longacre posits seven types of paraphrase: equivalence, negated antonym, generic-specific, amplification, specific-generic, contraction, and summary.

Equivalence and negated antonym paraphrase do not involve the addition of new information between the predications. Equivalence paraphrase involves a restatement of essentially the same information given in the first predication. Negated antonym involves two antonyms, one of which is negated in one of the predications.

Generic-specific and amplification involve an increase in information in the second predication. An example of generic-specific is not given in the questionnaire.

Specific-generic and contraction involve a decrease in information in the second predication.

Summary paraphrase involves a final predication which gives a general statement about the preceding series of predications.

Illustration includes simile and exemplification. Only simile is given in the questionnaire.

Deixis includes introduction and identification. Introduction has a predication stating the existence of someone or something and a further predication giving more information about him or it. Only

introduction is given in the questionnaire.

Attribution includes speech attribution and awareness attribution. Speech attribution is the attributing of an utterance to a speaker. Awareness attribution is the acknowledgement of information about a person or situation. The notion of attribution was not included in the questionnaire.

The intersecting relationship of frustration is included in the questionnaire. There are many varieties of frustration. Only frustrated succession and frustrated modality are given in the questionnaire.

Frustrated modality includes frustrated intent, frustrated obligation, and frustrated facility. Only frustrated intent is included in the questionnaire. The intent is stated in the first predication. This intent is blocked and results in a reversal of the intention.

3. Analysis of Questionnaire

3.1 Encoding of Deep Structure Notions into Tucanoan Surface Structures

All twenty-two of the deep structure notions described above can be encoded as sentences in English. In the questionnaire only twelve encoded as sentences. Five of these twelve also encoded as paragraphs. The other ten of the notions encoded only as paragraphs.

This analysis is true only for the original Tucano form of the questionnaire. Some informants in the other languages encoded the notions with other surface structures. These alternate encodings are given below. The literal and free translations of the original are given first followed by the literal and free translations of the alternate forms. The examples in Tucano are found in the appended copy of the questionnaire.

Example 1 of the questionnaire is encoded as a Parallel Paragraph in Tucano. The Northern Barasano informant gave the example in the form of an Open Sequence Sentence.

Example 1

literal: Tucanos benches they-work. Desanos baskets they-work.
Guananos baskets they-work.

free: Tucanos make benches. Desanos make baskets. Guananos make baskets.

Northern Barasano translation:

literal: Tucanos benches making, Desanos also baskets weaving,
they-do they (original third clause omitted).

free: Tucanos make benches and Desanos also weave baskets.

Example 2 is encoded as an Open Sequence Sentence. The Coreguaje informant gave the example in the form of a Parallel Paragraph.

Example 2

literal: Marcos being, Edu being, Tomás being, Ernesto being, Mario being they-are.

free: Marcos, Edu, Tomás, Ernesto, and Mario are (here).

Coreguaje translation:

literal: Marcos he-was. Edu he-was. Tomás he-was, Ernesto he-was. Mario he-was.

free: Marcos was. Edu was. Tomás was. Ernesto was. Mario was.

Example 8 is encoded as an Antithetical Paragraph. The Southern Barasano informant gave the example in the form of a Simple Sentence.

Example 8

literal: mother foot big foot she-had. daughter foot little-foot she-had.

free: The mother had a big foot. Her daughter had a little foot.

Southern Barasano translation:

literal: her mother foot big foot her daughter foot little foot it-was it.

free: It was that her mother (had) a big foot and her daughter had a little foot.

Example 14 is encoded as an Open Sequence Sentence. At the time of the recording of the questionnaire the Tucano informant changed the form to a Simple Sentence because he changed the medial verb 'eating' to a Contingent dependent clause 'as they were eating'. The Tatuyo and Yuruti informants each made a similar change.

Example 16 is encoded as a Close Sequence Sentence. The Tatuyo informant gave the example in the form of an Open Sequence Sentence with the addition of the medial verb 'doing'.

Example 16

literal: long-ago people grab he-sold this land people.

free: Long ago he grabbed and sold this land's people.

Tatuyo translation:

literal: long-ago people grabbing doing they bought this land

people

free: Long ago he grabbed and sold this land's people.

Example 25, 27, and 37 are encoded as Simple Sentences (which contain margins). The Tuyuca informant gave the examples in the form of Paraphrase Paragraphs.

Example 25

literal: he animals he-placed we in-order-to-eat.

free: He placed animals for us to eat.

Tuyuca translation:

literal: \tilde{O}'_{acu} placed. animals he-placed this land we in-order-to-eat.

free: \tilde{O}'_{acu} placed (them here). He placed animals for us to eat.

Example 27

literal: rain not-fall-if you possessor house it-would-have-burned.

free: If it had not rained your house would have burned.

Tuyuca translation:

literal: your house it-would-have-burned rain when-not-fall. it-would-have-burned that-house.

free: Your house would have burned if the rain had not fallen. That house would have burned.

Example 37

literal: tar like water also it-burned-completely.

free: Water, also, like tar burned up completely.

Tuyuca translation:

literal: tar doing like it-was-like water. it burned-up-completely.

free: The water did like the tar did. It burned up completely.

The following chart gives the surface structure sentence and paragraph types which encode the deep structure notions in the original Tucano form. The numbers in the parentheses refer to examples in the questionnaire.

	Sentence	Paragraph
CONJOINING		
Coupling	Open Sequence (2)	Parallel (1, 3, 4)
Contrast		Antithetical (5-8)
Comparison	Simple (9-11)	
TEMPORAL		
Overlap	Simple (12-13) Open Sequence (14)	
Succession	Open Sequence (15) Close Sequence (16, 18, 19)	Narrative (17)
IMPLICATION		
Hypotheticality	Simple (20, 22) Conditional (21)	
Efficient Cause		Result (23)
Final Cause	Simple (24-25)	
Circumstance	Simple (26)	
Contrafactuality	Conditional (27, 28)	
Warning	Simple (30)	Hortatory (29)
PARAPHRASE		
Equivalence		Parallel (31)
Negated Antonym		Antithetical (32)
Amplification		Paraphrase (33)
Specific-Generic		Paraphrase (34)
Summary	Open Sequence (35)	Paraphrase (35)
Contraction		Paraphrase (36)
ILLUSTRATION		
Simile	Simple (37, 38)	
DEIXIS		
Introduction		Explanatory (39)

(continued on next page)

FRUSTRATION		
Succession	Simple (40)	Frustration (40, 41)
Modality		Frustration (42)

Chart 1. Surface Structure Encodings of Deep
Structure Notions in Tucano

3.2 Sentence Types

There are four sentence types given in the chart above: Simple Sentence, Conditional Sentence, Open Sequence Sentence, and Close Sequence Sentence.

3.2.1 Simple Sentence

The Simple Sentence is a linear string which consists of a Recap Base, an Inner Periphery, and a Nucleus. The Nucleus consists of a single independent clause. The prenuclear Inner Periphery consists of a Contingent Margin. The Contingent Margin plus the Nucleus encodes overlap, hypotheticality, and circumstance.

The Contingent Margin is expounded by a contingent dependent clause. The verb of the contingent clause is marked for either change of subject or no change of subject in the following clause, i.e., in Tucano if the subject of the contingent clause is different from the subject of the following clause, the marker on the verb is -cã. -cã has the meaning of 'if' or 'when' depending upon the context. If the subject of the contingent clause is the same as the subject of the following clause, the marker on the verb is -gu 'masculine', -go 'feminine', -rã 'plural', and -ro 'inanimate, impersonal'. These markers also have the meaning of 'if' or 'when'. (The abbreviations in the examples are DS 'different subject' and SS 'same subject'.)

Examples of Simple Sentences with Contingent Margins (the example numbers refer to examples in the questionnaire):

Example 12

Contingent Margin	Nucleus
Cã da'racã <i>he work-when-DS</i>	nape'e cãricãjecã'parã. <i>they-emphatic they-sleep-lie-around</i>
'When he is working they lie around and sleep.'	

Example 22

Contingent Margin	Nucleus
Bocatigu <i>not-find-if-SS</i>	tojota ujuaboa wa'asa'a. <i>like-that hunger I-go</i>

'If I don't find (food) just like that I'll starve.'

Example 26

Contingent Margin

Nucleus

Wa'amasitige

yucage me'ra tuawă'căpî.

unable-to-walk-when-SS

stick with he-walked-with-a-stick

'Because he was unable to walk, he walked with a stick.'

The Contingent Margin may permute to follow the Nucleus. When it does permute it retains the same versus different subject marker but in regard to the preceding clause.

The postnuclear Inner Periphery consists of a Purpose Margin, a Reason Margin, and a Circumstantial Margin. The Purpose Margin is expounded by a purpose dependent clause. The Reason Margin is expounded by a reason dependent clause. The Circumstantial Margin is expounded by a circumstantial dependent clause. Examples in the questionnaire have only the Purpose and Reason Margins. Circumstantial Margin involves 'since'-type constructions.

The Nucleus plus Purpose Margin encodes deep structure Final Cause. The verb of the purpose dependent clause is marked for same or different subject in reference to subject of the independent clause. The reference is made back to the preceding clause. In Tucano different subject is marked by -ajă and the Purpose Margin so marked never permutes to prenuclear position. Same subject is marked with the same markers as the Contingent Margin as well as the following markers of future intention: -gutige 'masculine', -gotigo 'feminine', -rătiră 'plural', -rotiro 'inanimate, impersonal'. Embedded purpose verb phrases also manifest the Purpose Margin and are marked for same subject as the preceding clause. An example of an embedded purpose verb phrase is bu'beră wa'ară 'go in-order-to-plant'. There are no examples of the future intention markers nor embedded purpose verb phrases in the questionnaire.

Examples of Simple Sentence with Purpose Margin:

Example 25

Nucleus

Purpose Margin

Că wa'icără

cûpî mari ba'ajăre.

he animals

he-placed we in-order-to-eat-DS

'He placed animals for us to eat.'

The Purpose Margin with same subject markers may permute to prenuclear position.

The Reason Margin is marked for same subject as the preceding clause. The markers are the same as those of the Contingent Margin.

The Reason Margin may have embedded quotations as shown in the following example.

Example of Simple Sentence with Reason Margin:

Example 30

Nucleus	Reason Margin
Weco wuaro seecã'pə <i>parrot wing I-cut</i>	du'tiri nigo. <i>he'll-flee saying</i>
'I clipped the parrot's wing. (Otherwise) he might get away.'	

The Reason Margin cannot permute to a prenuclear position.

The Recap Base occurs only prenuclear and is a link with the previous sentence or paragraph. It is expounded by conjunctions or dependent clauses including the contingent clause discussed earlier. The dependent clauses in the Recap Base recapitulate what has happened in the previous sentence. A Simple Sentence with a conjunction in the Recap Base is given in the second sentence of the example below (the conjunction is underlined):

Example 17

First Sentence	Second Sentence
Nucleus	Conjunction Nucleus
Yai pūrire ba'apə. <i>jaguar leaves he-ate</i>	<u>Tu'aja</u> nucupori ba'amipə. <i>finish sand he-ate</i>
'The jaguar ate leaves. And then he ate sand.'	

The other Simple Sentences of the questionnaire are composed only of the nucleus manifested by an independent clause. The independent clause has peripheral tagmemes² such as Comparative Tagmeme and Purpose Tagmeme which encode deep structure comparison or simile and final cause respectively. The Comparative and Purpose Tagmemes are underlined in the following examples.

Example of Simple Sentence with Comparative Tagmeme:

Example 9

Comparative Tagmeme
<u>Mari nemoro</u> tutuasami Ō'acə. <i>we more-than he-is-strong</i> Ō'acə
'Ō'acə is stronger than we are.'

Example of Simple Sentence with Purpose Tagmeme:

Example 24

	Purpose Tagmeme
Na ba'asute dijo'quere cã u	<u>ba'agu</u> pi'atapã.
<i>they eat-scatter let-down he turtle</i>	<i>eat he-came-out-</i>
	<i>of-jungle</i>

'The turtle came out of the jungle in order to eat what they had dropped while eating.'

3.2.2 Conditional Sentence

The Conditional Sentence is a binary structure composed of a Protasis and an Apodosis. The Protasis is expounded by a contingent dependent clause. The Apodosis is expounded by a conditional independent clause with a conditional morpheme in the verb. The conditional clause is considered independent because the verb has the person-tense markers of a final verb.

When the tense of the final verb is future, the Conditional Sentence encodes deep structure hypotheticality. When the tense of the final verb is past, the Conditional Sentence encodes contrafactuality. The conditional morpheme -bo (of Tucano) is underlined in the following examples.

Examples of Conditional Sentences:

Example 21

Contingent Margin	Nucleus
Ti ma wa'arã	nare msa bocaposa'a.
<i>that river go-if-SS</i>	<i>them you (pl.) you-will-find</i>
'If you go on that river you will find them.'	

Example 27

Contingent Margin	Nucleus
Acoro pejaticã	msa ya wi'l ujwaboapã.
<i>rain not-fall-if-DS</i>	<i>you possessor house it-would-have-</i>
	<i>burned</i>

'If it had not rained your house would have burned.'

3.2.3 Open Sequence Sentence

The Open Sequence Sentence consists of an optional Recap Base, an indefinite number of Medial Bases and one Final Base. The Recap Base is described above under Simple Sentence. The Medial Base is manifested by embedded Simple Sentences with a loss of person-tense verbal suffixes or dependent clauses. Only the Contingent Margin can occur with the embedded Simple Sentence. There is a

characteristic upgliding intonation on each of the Medial Bases. The Final Base is manifested by an embedded Simple Sentence but with full affixation of the verb and optional Inner Peripheries. The Open Sequence Sentence encodes coupling, overlap, succession, and summary paraphrase. Not all examples of deep structure encoding are given. See Appendix for examples of other encodings.

Example of Open Sequence Sentence encoding succession:

Example 15

Medial Base

Õ'ari mitojaja,
bones take-finish

Medial Base

te õ'ari sãre,
those bones drill-holes

Final Base

na uamaja putiparãmaja yai õ'arire.
they turtles they-blew jaguar bones

'Taking the bones, drilling holes in the bones, the turtles blew on the jaguar bones.'

3.2.4 Close Sequence Sentence

The Close Sequence Sentence consists of no more than two Medial Bases and one Final Base. The Medial Bases are manifested by verbs with no person-tense affixation. The verbs of the Medial Bases are spoken in close succession to the predicate of the Final Base.

There may be neither a noun phrase intervening between the verbs nor phonological juncture. The actions of the medial and final verbs are almost simultaneous.³

Example of Close Sequence Sentence:

Example 18

Medial

Yai bu'pu
jaguar jump

Medial

maja
go-up

Final

du'tipæ.
he-hid

'The jaguar jumped, went up and hid.'

The Close Sequence Sentence encodes close succession (almost simultaneity) -- a deep structure category not posited by Longacre.

3.3 Paragraph Types

Only the deep structure encodings pertinent to the questionnaire are given. In other words, some of the following paragraph types encode other deep structures than those illustrated.

3.3.1 Parallel Paragraph

The Parallel Paragraph consists of an indefinite number of bases: + Parallel + Parallelⁿ which are expounded by similar sentences in which the verb of each either remains constant or is in the same semantic domain. When bases of a two base paragraph are short and parallel they may form one phonological sentence.⁴ The verb of the second sentence may be deleted and replaced with a form which means 'like that' (underlined in the following example).

Example 4

Parallel₁: U ma'a quē'rāpɐ añuri ma'a.
 turtle trail he-clear good trail

Parallel₂: Cã ñama quē'ra tojota.
 he deer also like-that

'The turtle cleared a good trail and so did the deer.'

The Parallel Paragraph encodes deep structure coupling.

3.3.2 Antithetical Paragraph

The Antithetical Paragraph consists of two bases: + Thesis + Antithesis. It encodes deep structure contrast and negated antonym paraphrase

Example 5

Thesis: Pedro co ɿ'acã wa'i nimo.
 Pedro her see-when fish she-is

Antithesis: Na ɿ'acã maso nimo.
 they see-when woman she-is

'When Pedro looks at her she's a fish. When they look at her she's a woman.'

3.3.3 Narrative Paragraph

The Narrative Paragraph consists of an indefinite number of bases with two optional tagmemes: + Setting + Buildup + Buildupⁿ + Terminus. Each of the Buildup Tagmemes shows progressive movement from one event to another on a time-line. There is systematic linkage between the sentences of the paragraph in the form of a Recap Base sentence initial. The Recap Base was described above in the section on Simple Sentence. The Narrative Paragraph encodes temporal succession.

Example 17

Buildup₁: Yai pūrire ba'apɐ.
 jaguar leaves he-ate

Buildup₂: Tu'aja nucupori ba'amipɛ.
finish sand he-ate

'The jaguar ate leaves. And then he ate sand.'

3.3.4 Result Paragraph

The Result Paragraph consists of two bases: + Text + Result. Text expounds the cause of the action. Result expounds the effect of the action and is optionally linked to the first base with a form meaning 'therefore'. It encodes efficient cause.

Example 23

Text: Tiru me'ra yɛ're nɔcɔ tã'ria wa'asɔ.
that-pot with to-me heavy crush it-went

Result: Tojo weego yɛ'u wa'amasitisa'a.
therefore I I-unable-to-walk

'The heaviness of the pot crushed me so I can't walk.'

3.3.5 Hortatory Paragraph

The Hortatory Paragraph consists of an indefinite number of bases: + Motivation + Exhortation + Exhortationⁿ. Exhortation is expounded by imperative sentences and may precede Motivation. It encodes deep structure warning in the questionnaire.

Example 29

Exhortation₁: Cãriticã'ña mɛ'u quẽ'ra.
don't-sleep you also

Exhortation₂: Añuro ï'aña.
well look

Motivation: Yajasama na. Na yajacã ña'a nirosa'a.
they-steal they they steal-if bad it-will-be
 'Don't you sleep either. Watch well. They steal.
 If they steal it will be bad.'

Notice that there is an embedded Result Paragraph in the Motivation.

3.3.6 Paraphrase Paragraph

The Paraphrase Paragraph consists of two bases: + Text + Paraphrase. Paraphrase is a restatement of the Text. It encodes deep structure amplification paraphrase, specific-generic paraphrase, summary paraphrase, and contraction paraphrase.

Example 33

Amplification:

Text: Ni'cācā a'tiapu yu'θ.
today I-came I

Paraphrase: Yu'θ ma'mi me'ra a'tiapu.
my older-brother with I-came

'I came today. I came with my older brother.'

Example 34

Specific-Generic:

Text: Ni'cāroacāre wērigusa'a.
now I-will-die

Paraphrase: Ni'cāroacāre wa'agusa'a.
now I-will-go

'Now I'm going to die. Now I'm going to go.'

Example 35

Summary:

Text: Cāre apegō wāa, apegō wāa, apegō
him another carried another carried another
 wāa, wēama.
carried they-did

Paraphrase: I'tia numia wāamlama.
three women they-carried

'Another carried him, another carried him, and another carried him. That's what they did. Three women tried to carry him.'

This Paraphrase Paragraph is embedded within a Frustration Paragraph. See the example in the Appendix.

Example 36

Contraction Paraphrase:

Text: Dia deco tutuatia wa'apu yu'θ paθ miji.
river middle he-became-weak my father poor-one

Paraphrase: Tutuatia.
he-was-weak

'In the middle of the river my poor father became weak. He was weak.'

3.3.7 Explanatory Paragraph

The Explanatory Paragraph consists of an indefinite number of

bases: + Text + Explanation + Explanationⁿ. It encodes deixis.

Example 39

Text: Cũ yuca nipĩ wa'imasa ñeçu.
he buzzard he-was fish-people ancestor

Explanation: Petapũ sijapĩ.
beach he-hung-around
 'He was the buzzard, the fish-people's ancestor.
 He hung around the beach.'

3.3.8 Frustration Paragraph

The Frustration Paragraph consists of two obligatory bases and one optional base: + Text + Contraexpectation + Comment. The verb of the Text contains the frustration morpheme. Contraexpectation is the negation of the expected event or outcome. The Comment gives the blocking circumstance or the surrogate action. The Frustration Paragraph encodes frustrated succession and frustrated modality.

Example 40

Frustrated Succession:

Text: Cũ pacore pisumiami.
he mother he-called (frustration)

Contraexpectation: Yũ'titiamo.
she-not-answer

Comment: Mariamo.
she-was-not
 'He tried to call his mother. She didn't answer. She wasn't there.'

In this example the Comment gives the blocking circumstance.

Example 42

Frustrated Modality:

Text: Pĩro cũre wejẽsĩ'rimipũ.
boa him he-wanted-to-kill

Contraexpectation: Wẽritipũ.
he-didn't-die

Comment: Cũ pĩro pagapũ dujipũ.
he boa stomach he-sat
 'The boa wanted to kill him. He didn't die.
 He sat in the boa's stomach.'

In this example Comment gives the surrogate action.

4. Changes Made in Translation of Questionnaire

The recording of each of the nine translations was transcribed and then compared with the original questionnaire. Every entry had some change made in at least one language. Even the Tucano informant made changes as the questionnaire was recorded. These changes uncovered problem areas in the questionnaire, difficult parts, and basic language differences.

What kinds of changes were made and why? The changes were catalogued as follows:

- 1) Addition of lexical items
- 2) Deletion of lexical items
- 3) Shift of word or clause order
- 4) Substitution of lexical items
- 5) Change of syntactic structures
- 6) Changes of tense and other morphemes
- 7) Changes resulting in different deep structure encodings.

4.1 Addition of Lexical Items

The most common lexical items to be added were pronouns, particularly subject pronouns. Subject is marked in the verb so the pronouns are redundant information. Two of the languages have a fondness for using free pronouns. The Southern Barasano informant added a total of thirteen pronouns and the Northern Barasano informant added ten pronouns.

Very few subject nouns were added. The Tuyuca informant added a total of five and the Coreguaje informant added two. These were added for specification of who was doing the acting.

4.2 Deletion of Lexical Items

The most common deletions were pronouns and redundant vocabulary items. Six of the languages dropped 'her' of Example 5 contrast. Four of the six languages replaced 'her' with 'he'. Only the first sentence of the example is given here.

Original (Tucano):

Pedro co ɾ'acã wa'l nimo.

Pedro her see-when fish she-is

'When Pedro looks at her she's a fish.'

Four of the languages (Tucano itself, Southern Barasano, Desano and Northern Barasano) replaced 'her' with 'he' giving the following form:

Pedro cã ɾ'acã wa'i nimo.

Pedro he see-when fish she-is

'When Pedro looks at her she's a fish.'

Two of the languages (Tatuyo and Yurutí) dropped 'he'.

Pedro ɽ'açã wa'i nimo.
Pedro she-when fish she-is

'When Pedro looks at her she's a fish.'

There are two possible reasons for the changes. The focus marker -re (in Tucano) which would help to identify co as the object, is missing, thus causing some confusion as to which is the subject, Pedro or co (co can be translated as 'she' or 'her'). Another reason for the change from co 'her' to cã 'he' is that in several of the languages the pronoun is used more commonly as the subject of the sentence. Proper names are used as sentence or paragraph topics rather than as subjects of sentences so the informants felt the need to supply a subject of the sentence.

Two of the informants made major changes in Example 2 coupling. The Tuyuca and Desano informants dropped all of the medial verbs leaving only a listing of proper names and the final verb.

Original:

Marcos ni, Edu ni, Tomás ni, Ernesto ni, Mario ni,
Marcos being Edu being Tomás being Ernesto being Mario being
 nima.
they-are

'Marcos, Edu, Tomás, Ernesto, and Mario are.'

Tuyuca and Desano:

Marcos, Edu, Tomás, Ernesto, Mario nima.
Marcos Edu Tomás Ernesto Mario they-are

The reason for this change is to get rid of redundant material in a sentence which is out of context. In the proper context with the focus of the speaker on the presence of the men rather than on the names of those present, the original would be acceptable.

Another example of the deletion of redundant material is the changes made in Example 8 contrast.

Original:

Paco dɛ'pocã pajiri dɛ'pocã cuopo. Maco dɛ'pocã cã'dɛ'pocã
mother foot big foot she-had daughter foot little-foot
 cuopo.
she-had

'The mother had a big foot. Her daughter had a little foot.'

Three of the informants (Tucano, Yurutí, and Coreguaje) deleted the first 'foot' of each noun phrase. The Tuyuca deleted only the first 'foot' of the second sentence. The full form of noun phrases given in isolation is noun-adjective-noun as in the example above. (Că'da'pocă 'little foot' is a contracted form which is made up of an adjective plus a noun.) However, once the full form is given, a shortened form, adjective-noun, is used throughout the rest of the paragraph. In the instance cited above where three of the informants deleted the first noun of both noun phrases and one informant deleted the first noun of the second noun phrase, it is because they had heard the sentence with the full noun phrase forms and felt it unnecessary to repeat it that way but instead chose to use the shortened form.

The best example of the deletion of redundant material is the changes made in Example 15 succession.

Original:

Ö'ari mtojaja, te ö'ari säre, na uamaja putiparāmaja
bones take-finish those bones drill-holes they turtles they-blew
 yai ö'arire.
jaguar bones

'Taking the bones and drilling holes in the bones, the turtles blew on the jaguar bones.'

Five of the informants (Tucano, Tatuyo, Desano, Yurutí, Northern Barasano) deleted the second reference to 'bones'. Southern Barasano deleted the first reference to 'bones'. Once again, the reason for the deletion of the word 'bones' is because the example in the questionnaire is out of context. The repetition of 'bones' is redundant and meaningless in an isolated sentence. It has been found in Tucanoan discourse structure that extensive use of repetition is common either at the peak of the story or very near the peak. This sentence was taken from the part of a Guanano text that immediately followed the peak, thus explaining why 'bones' was repeated three times in one sentence.

4.3 Shift of Word or Clause Order

Three of the informants shifted the subject to sentence final position. Coreguaje shifted the subject in six of the examples, Northern Barasano in five of the examples, and Southern Barasano in four. The preferred word order for these languages is subject in sentence final position. One notable exception to this is that the Coreguaje informant shifted the subject to sentence initial position in all of the sentences involving comparison (Section 1.3 of question-

naire) and simile (Section 6.1 of questionnaire).

Subject in sentence initial position is the preferred order for the other languages.

The Southern Barasano informant changed the order of the margins in relation to the nucleus in four of the examples. His handling of Examples 25 and 30 showed a striking difference from Tucano, in that he shifted the Purpose Margin of Example 25 and the Reason Margin of Example 30 to a prenuclear position. These margins can only occur postnuclear in Tucano. Some informants changed positive-negative sequence of sentences to negative-positive.

In the questionnaire Examples 7 and 32 are given as a positive-negative sequence of sentences. Only the English free translations are given here. For full example see questionnaire.

Example 7

Positive	Negative
'Another time he went down.'	'Another time he didn't go down.'

Example 32

Positive	Negative
'You are a jungle person.'	'You are not a foreigner.'

Three of the languages (Tucano, Tuyuca, and Yurutí) gave the negative sentence first in the first example. Two of the languages (Tuyuca and Coreguaje) gave the negative sentence first in the second example. It appears from this at least in Tuyuca the preferred order is negative-positive. It is unfortunate that the other informants were not given a choice as to which order they prefer.

4.4 Substitution of Lexical Items

The Coreguaje informant changed all of the examples of animals performing human-type activities to human beings performing the activities. This was a culturally relevant change in that none of the myths in Coreguaje have animals acting like human beings.

In Examples 9 and 10 comparison two terms are used to mean 'more than', *nemoro* and *ya'ræoro*. Every informant chose only one of the terms to use for both of the sentences. For example the Guanano informant chose the equivalent of *ya'ræoro* for both examples while the Tuyuca informant chose the equivalent of *nemoro* for both examples. Many of the languages have the equivalent of both words, but because the point of comparison is the same, only one of the words was chosen. It would have been better to have had a different point of comparison, such as size, for one of the examples.

4.5 Change of Syntactic Structures

The most common syntactic structure changes were to make two, three, four, and even five sentence constructions out of one sentence construction. There were only three examples of the reverse, i.e., that of making one and two sentence constructions out of two and three sentence constructions. Examples of syntactic structure changes were given in Section 3.1. Two examples of expanded constructions are shown below. The original examples from the questionnaire are given first in literal and free English translations.

Example 35

- literal: him another carried, another carried, another carried, they-did. three women they-carried. he he-did-not-quiet-down.
- free: 'One carried him, another carried him and another carried him. That's what they did. Three women tried to carry him. He didn't quiet down.'

The Coreguaje informant made five sentences out of the first sentence in the above example. He made minor changes in the last two sentences. The free translation of the Coreguaje rendering is given below:

- free: 'When I held him, the child cried a lot. When he cried, again I gave him to another. When I gave him, again he cried. When he cried, he gave him to another. When he gave him, he cried louder. He didn't stop. Even when all had held him, he didn't stop.'

This example along with the changes made in Example 2 (see Section 3.1 of this paper) and other changes show that Coreguaje has a preference for shorter sentences rather than long Sequence Sentences. This was confirmed in private conversation with Dorothy Cook, linguist studying the Coreguaje language. Notice the consistent linkage between sentences throughout the first half of the resultant paragraph.

Example 4

- literal: turtle trail he-clear good-trail. he deer also like-that.
- free: 'The turtle cleared a good trail and so did the deer.'

This sentence is phonologically one sentence but two grammatical sentences with optional deletion of the verb in the second sentence. The Tuyuca informant, however, made four sentences out of the above construction. (See Section 3.3.1.)

Free translation of Tuyuca:

'The turtle cleared his trail. It was, also, a good trail.
The deer like that made his trail. He cleared a trail.'

Five of the other informants (Tucano (at time of recording), Yurutí, Southern Barasano, Coreguaje, and Northern Barasano) added the verb 'cleared' to the second sentence making two complete sentences. The original example is commonly found in text material and overheard in conversation, but out of context the informants felt it necessary to supply the deleted verb of the second sentence.

The Tuyuca informant similarly increased the number of sentences for six of the examples. See Section 3.1 for three examples of this kind of change. He gave information but distributed it differently. In Tucanoan languages there is a fondness for repetition and paraphrase, feeding in information at a slow rate. This characteristic is evident in the Tuyuca translation of the questionnaire.

An example of the reverse is the Northern Barasano translation of Example 1 which was given in Section 3.1. The literal and free translations of the Northern Barasano rendering are repeated.

Translation of Northern Barasano:

literal: Tucanos benches making, Desanos, also, baskets weaving, they-do they.

free: 'Tucanos make benches and Desanos, also, weave baskets.'

There were so few examples of decreasing the number of sentences that I can not posit any explanation for this. The verb 'do' is, however, used here in a summary way that is typically Tucanoan.

4.6 Changes of Tense and Other Morphemes

There was a general shift of verbal affixes which showed speaker involvement to the affixes which showed noninvolvement. This is readily explainable. The examples were being recorded and the informants wanted to disclaim any involvement with the statements they were making since they were not witnesses of the events.

Five of the informants (Tucano, Tuyuca, Tatuyo, Yurutí, Southern Barasano) changed the verb stem 'bad' to the negated antonym 'not good'.

Example 29

Original in free translation:

free: 'Don't you sleep either. Watch well. They steal. If

they steal it will be bad.'

Changed form:

free: 'Don't you sleep either. Watch well. They steal. If they steal it will not be good.'

The negation of good is a stronger way of saying 'bad'. It excludes the possibility of there being any good.

4.7 Changes Resulting in Addition of Further Deep Structures

These changes resulted in the addition of further deep structure notions to certain examples. Thus, in the Southern Barasano translation of Example 13 Overlap, the informant added final cause.

Original translation:

literal: that bunch finish-when just he-perched.

free: 'Until that bunch (of bananas) finished he just perched there.'

Southern Barasano translation:

literal: banana stalk was-when doer he-perched. eat completely-one.

free: 'While there was a banana stalk he perched in order to eat them all.'

One of the reasons for the addition of information and change in encoding is the informant felt the need to add more information to make the story more complete and pleasing. This points out the problem of using isolated sentences. The context is very important to the understanding of the sentence. The informant was reacting to this and supplying more context within the bounds of the sentence.

5. Evaluation of the Questionnaire

5.1 Difficult Parts of the Questionnaire

The difficult parts of the questionnaire were the examples from myths, the example of contraction paraphrase, and the section on Alternation.

The examples which were taken from myths were found to be difficult for two reasons: the idea of animals doing human-like activities is foreign to some of the cultures as in the case of the Coreguaje informant; and the informants felt they needed to know more of the story or became very concerned about the context of the story.

Contraction paraphrase Example 36 was very difficult to translate and record on tape because it was taken out of context. Con-

traction paraphrase is found in the buildup of suspense in the Peak of a Narrative Discourse or in the slowing down of action in the Finis. It has little meaning out of context.

Alternation has been included in this section because we found no examples of it among any of the Tucanoan languages. This would lead one to question whether Alternation is a universal deep structure notion. The absence of Alternation in speech is borne out by the culture. They prefer to give commands or be commanded. Interestingly, there are nine imperative forms.

5.2 Easy Parts of the Questionnaire

The easy parts of the questionnaire were determined by noting the fewest amounts of changes (three or less) or lack of informant reaction to the example. The easy parts include all examples of comparison, the first example of temporal overlap, the last two examples of temporal succession, the last example of final cause, both examples of contrafactuality, and the last example of simile. There are a number of reasons why these examples were easy: 1) They are the shortest examples in the questionnaire, 2) there are free pronouns to help keep participants straight, and 3) with the exception of simile the examples are free from mythological reference.

The negated antonym paraphrase, amplification paraphrase and specific-generic paraphrase examples were easy to translate and record on tape because this is a typical way of talking or telling stories for the Tucanoans. Their oral literature is full of paraphrase.

5.3 Use of the Questionnaire for Comparing Languages

A study of the changes revealed certain tendencies or characteristics of the languages.

Northern Barasano and Southern Barasano share the common characteristic of subject occurring sentence finally. The Coreguaje informant made six shifts of the subject to final position in the sentence. The characteristic word order for all of the other Tucanoan languages is for the subject to occur either sentence initial or very near the beginning of the sentence.

A further characteristic of Northern Barasano and Southern Barasano is a fondness for using free subject pronouns. The informants in these two languages added far more subject pronouns to the examples than any of the other informants.

Southern Barasano and Coreguaje shared the characteristic of switching the order of the independent clause and margins from what was given on the questionnaire. These shared characteristics tend to group Northern Barasano, Southern Barasano, and Coreguaje as being more closely related to each other syntactically than they are

to the other languages.

The Tucano and Yurutí informants made a number of the same kinds of changes. Independently of each other they deleted the same kinds of redundant information, changed a positive-negative sequence of sentences to a negative-positive sequence, and added the same pronoun to the same example. Examples of these changes have been given above. The changes made by the Tucano and Yurutí informants show a closer syntactic relationship between the languages than with any of the other languages.

These syntactic similarities do not necessarily show overlap with lexical similarities. For example Yurutí and Tuyuca share many of the same lexical items and many of the same morphemes. The comparison of these results with the results of the mutual intelligibility tests to be given at a later date should give us a clearer picture of the relationship between the languages.

The following diagram shows the syntactic relationships between the languages. The solid line indicates the most shared characteristics, i.e., the languages made a number of similar changes. The broken lines show some shared characteristics; i.e., the languages thus connected made at least four similar changes. No line was drawn between the languages if fewer than four similar changes were made.

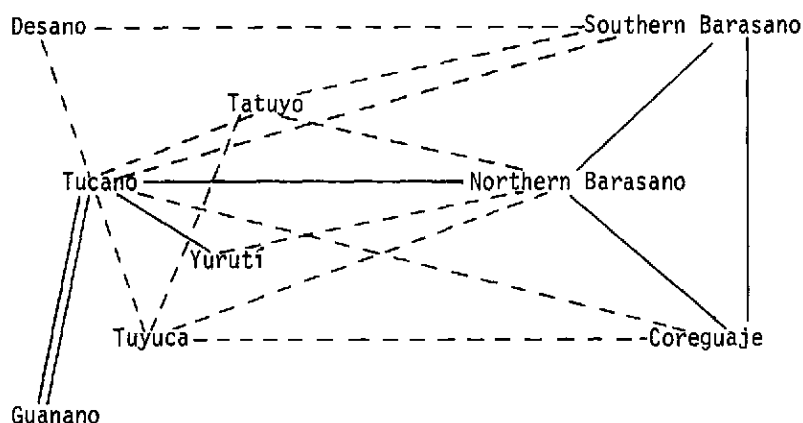


Diagram 1. Syntactic Relationship Between Languages.

I have drawn a double line between Guanano and Tucano because the fact that the Guanano informant made very few changes in the original Tucano version of the questionnaire shows that the two languages are close syntactically. The Tucano informant, at the

time that we recorded the questionnaire, made many changes which obscured the fact that the languages are closely related. I believe that the reason he made so many changes is because he was concerned about how the recording would sound to others. As Robert Longacre observed, 'It's a clear case of editorial jitters.'

There are two other factors which have influenced the kinds of changes or lack of changes which the informants made: 1) the personality or disposition of the informant and 2) the manner in which the material was elicited. Some informants are very creative and independent. They would rather give their own original interpretations than follow the example of someone else. When the linguist translated the examples with the informant and then had the informant repeat them into a recorder, there were fewer changes than if the translator gave an idea of what was wanted and asked the informant to say it his own way.

Some of the informants know Tucano so they translated the Tucano into their own languages. One would expect fewer changes with this method. In any event there were significant changes made which showed syntactic similarities between the languages.

5.4 Value of the Questionnaire

First, the actual mechanics of making the questionnaire has given us valuable experience and we have learned some do's and don't's for making such questionnaires. These are listed below:

- 1) Don't get examples from mythology.
- 2) Get examples from conversation as well as from texts about everyday life.
- 3) Make sure the examples are as unambiguous as possible.
- 4) Don't use examples which have a very limited or specialized context.
- 5) Record the examples and make final changes in the master questionnaire before giving it to others to translate to avoid the problem encountered with the Tucano informant who made many changes at the time of recording.
- 6) Standardize method of elicitation and translation of the questionnaire into other languages to keep the testing as constant as possible.

Secondly, the questionnaire has proved valuable 1) in showing how deep structure notions are encoded in surface structures, 2) in pointing out the importance of context to any utterance, and 3) has been useful in comparing languages.

The encoding of deep structures into surface structures and the usefulness of the questionnaire for comparison purposes has been discussed above.

The importance of context to an utterance was forcefully demonstrated in the translation of the questionnaire. It was often necessary for the linguist to supply a context for the utterance in order to be translated. In some instances the informant supplied contextual material. When a context could not be readily supplied (as for contraction paraphrase) it was very difficult to translate an example.

The ordering of tagmemes in a sentence is dependent upon the context. The third example of coupling: 'At first the animals were not fierce. The snakes were not fierce either.' was taken from a Tuyuca text in which the order was 'The animals were not fierce at first...' The time phrase 'at first' appeared finally in the sentence because the time setting had already been established in the story and was given for emphasis or contrast with what happened later in the story. However, when the sentence was lifted out of context, it was necessary to use the time phrase as a setting for the rest of the sentence and so was placed in a sentence initial position. In effect, such isolated sentences become miniature discourses.

The questionnaire has taught us much about the characteristics of the Tucanoan languages, in what ways they are alike and in what ways they are different. It has certainly been of more value than just comparing word lists because, to quote D.L. Ballard et al (1971:78)

It seems apparent that the deep structure relations--which are on the situational or real-world side of language rather than on its more formal side--are more universal than the surface structures which encode them. It proves convenient then to compare languages as structures first via the deep structures and secondarily via surface structures... the student of language who is aware of the deep grammar as well as the surface grammar within even one language has no small advantage over one simply familiar with surface structures of several languages.

Appendix: Tucanoan Syntax Questionnaire

Examples of Deep Structure Notions in Tucanoan Languages

Notes: Beware of word-for-word translation. This can give you unnatural forms. Try to translate the English first, and for help or for a check use the Tucano as well. Material within the parentheses is given as interesting but extra information which does not need to be translated. The examples are numbered consecutively.

1. CONJOINING

1.1 Coupling

- (1) Dasea cumupa'tari da'rasama. W'ira wujabatiri da'rasama.
Tucanos benches they-work Desanos baskets they-work
 Ocoticjarã tjöpari da'rasama.
Guananos baskets they-work
 'Tucanos make benches. Desanos make baskets. Guananos make baskets.'

- (2) Marcos ni, Edu ni, Tomás ni, Ernesto ni, Mario ni,
Marcos being Edu being Tomás being Ernesto being Mario being
 nima.
they-are
 'Marcos, Edu, Tomás, Ernesto, and Mario are (here).'

- (3) Nee waropu wa'icará uatimpã. Aña
at-the first animals they-not-fierce (frustration) snakes
 quẽ'ra uatimpã.
also they-not-fierce (frustration)
 'At the first the animals were not fierce. The snakes were not fierce either.'

- (4) U ma'a quẽ'rãpu añuri ma'a. Cã ñama quẽ'ra tojota.
turtle trail he-clear good trail he deer also like-that
 'The turtle cleared a good trail and so did the deer.'

1.2 Contrast

- (5) Pedro co i'acã wa'i nimo. Na i'acã maso nimo.
Pedro her see-when fish she-is they see-when woman she-is
 'When Pedro looks at her she's a fish. When they look at her she's a woman.'

- (6) Ñami (pe'e ma) numio nipo. Co umacore pĩro nipo.
night (emphatic) woman she-was she day boa she-was
 'At night she was a woman. In the day she was a boa.'
- (7) Apeterore bu'ami. Apeterore बातमी.
another-time he-went-down-to-river another-time he-didn't-go-down
 'Another time he went down. Another time he didn't go down.'
- (8) Paco dɛ'pocã pajiri dɛ'pocã cɛopo. Maco dɛ'pocã cã'dɛ'pocã
mother foot big foot she-had daughter foot little-foot
cɛopo.
she-had
 'The mother had a big foot. Her daughter had a little foot.'

1.3 Comparison

- (9) Mari nemoro tutuasami Õ'acu.
we more-than he-is-strong Õ'acu
 'Õ'acu is stronger than we are.'
- (10) Cã Pedro yɛ'rɛoro tutuasami Mario.
he Pedro more-than he-is-strong Mario
 'Mario is stronger than Pedro.'
- (11) Cã dijarɔ tutuasami cã be'ro cɟũ.
he less-than he-is-strong he after male
 'The one after him is less strong than he is.'

2. ALTERNATION

(no examples)

3. TEMPORAL

3.1 Overlap

- (12) Cã da'racã nape'e cãricãjecã'parã.
he work-when they-emphatic they-sleep-lie-around
 'When he is working they lie around and sleep.'
- (13) Ti tɔ'o pe'ticãpɛ tojo pesacã'mi.
that bunch finish-when just he-perched
 'Until that bunch (of bananas) finished he just perched there.'

- (14) Na ba'a, cã u a'tipumaja.
they eating he turtle he-came
 'While they were eating, the turtle came.'

3.2 Succession

- (15) Õ'ari mitojaja, te õ'ari sãre, na uamaja
bones take-finish those bones drill-holes they turtles
 putiparãmaja yai õ'arire.
they-blew jaguar bones
 'Taking the bones and drilling holes in the bones, the turtles
 blew on the jaguar bones.'
- (16) Dəporopə masa ñe'e duapĩ a'te di'ta cjaräre.
long-ago people grab he-sold this land people
 'Long ago he grabbed and sold this land's people.'
- (17) Yai pũrire ba'apə. Tu'aja nucupori ba'amipə.
jaguar leaves he-ate finish sand he-ate (frustration)
 'The jaguar ate leaves. And then he ate sand.'
- (18) Yai bu'pu mɔja du'tipə.
jaguar jump go-up he-hid
 'The jaguar jumped, went up and hid.'
- (19) Na bəɾəque'a wẽriparã.
they fall-down they-died
 'They fell down and died.'

4. IMPLICATION

4.1 Conditionality

4.1.1 Hypotheticality

- (20) Cã a'ticã pũgə o'ogusa'a cãre.
he come-if hammock I-will-give to-him
 'If he comes I'll give him a hammock.'
- (21) Ti ma wa'arã nare mɔsa bocabosa'a.
that river go-if them you (pl) you-will-find (conditional)
 'If you go on that river you will find them.'
- (22) Bocatigə tojota ɔjuaboa wa'asa'a.
not-find-if like-this hunger I-go

'If I don't find (food) just like that I'll starve.'

4.2 Causation

4.2.1 Efficient Cause

- (23) Tiru me'ra yu'are nucu tã'rla wa'asu. Tojo weego
that-pot with to-me heavy crush it-went therefore

yu'u wa'amasitisa'a.
I I-unable-to-walk

'The heaviness of the pot crushed me (when I tried to lift it) so/therefore I can't walk.'

4.2.2 Final Cause

- (24) Na ba'asute dijo'quere cã u ba'agu pi'atapu.
they eat-scatter let-down he turtle eat he-came-out-of-jungle

'The turtle came out of the jungle in order to eat what they had dropped while eating.'

- (25) Cã wa'icurã cûpĩ mari ba'ajãre.
he animals he-placed we in-order-to-eat

'He placed animals for us to eat.'

4.2.3 Circumstance

- (26) Wa'amasitigu yucagu me'ra tuawã'cãpĩ.
unable-to-walk-when stick with he-walked-with-a-stick

'Because he was unable to walk, he walked with a stick.'

4.3 Contrafactuality

- (27) Acoro pejaticã msa ya wi'i ãjũboapã.
rain not-fall-if you possessor house it-would-have-burned
 'If it had not rained your house would have burned.'

- (28) Acoro pejacã cã ya wi'i ãjũtibopã.
rain fall-if he possessor house it-would-not-have-burned
 'If it had rained his house would not have burned.'

4.4 Warning

- (29) Cãriticã'ña mu'u quẽ'ra. Añuro ã'aña. Yajasama na.
don't-sleep you also well look they-steal they

Na yajacã ña'a nirosa'a.
they steal-if bad it-will-be

'Don't you sleep, either. Watch well. They steal. If they steal it will be bad.'

- (30) Weco wæro seecã'pə du'tiri nigo.
parrot wing I-cut he'll-flee saying
 'I clipped the parrot's wing. (Otherwise) he might get away.'

5. PARAPHRASE

5.1 Equivalence

- (31) Wæpə bæro acoroapə. Wa'aro weero acoroapə.
plane sound sounded go do sounded
 'The sound of the plane sounded. The flying sounded.'

5.2 Negated Antonym

- (32) Mə'u næu cǝ ni'i. Pecasũ mejeta ni'i.
you jungle male you-are foreigner not you-are
 'You are a jungle person. You are not a foreigner.'

5.3 Amplification

- (33) Ni'cãcã a'tiapə yə'u. Yə'u ma'mi me'ra a'tiapə.
today I-came I my older-brother with I-came
 'I came today. I came with my older brother.'

5.4 Specific-Generic

- (34) Ni'cãroacãre wërigusa'a. Ni'cãroacãre wa'agusa'a.
now I-will-die now I-will-go
 'Now I'm going to die. Now I'm going to go.'

5.5 Summary

- (35) Cãre apegə wwa, apegə wwa, apegə wwa, weeama.
him another carried another carried another carried they-did
 (I'tia numia wamiamā. Cũ nee yəsutiami.)
(three women they-carried (frustration) he he-did-not-quiet-down)
 'One carried him, another carried him and another carried him. That's what they did. (Three women tried to carry him. He didn't quiet down.)'

5.6 Contraction Paraphrase

- (36) Dia deco tutuatia wa'apɐ yɐ' pɐɐ miʒi. Tutuatiaɐ.
river middle he-became-weak my father poor-one he-was-weak
 'In the middle of the river my poor father became weak. He was weak.'

6. ILLUSTRATION

6.1 Simile

- (37) Ope weronojo aco quẽ'ra ẽjɐpɛ'tia wa'apã.
tar like water also it-burned-completely
 'Water, also, like tar burned up completely.'
- (38) Pĩro wã'rõpjĩ weronojo bɛsɐpɐ.
boa paujil (bird) like he-sounded
 'The boa sounded like a paujil.'

7. DEIXIS

- (39) Cã yuca nipĩ wa'Imasa ñɛɐɐ. Petapɐ sijapĩ.
he buzzard he-was fish-people ancestor beach he-hung-around
 'He was the buzzard, the fish-people's ancestor. He hung around the beach.'

8. ATTRIBUTION

(no examples)

9. FRUSTRATION

9.1 Frustrated Succession

- (40) Cã pacore pisumaiami. Ye'titiamo. (Mariamo.)
he mother he-called (frustration) she-not-answer (she-was-not)
 'He tried to call his mother. She didn't answer. (She wasn't there.)'

(The Tucano informant wanted *marimo* 'she is not' instead of *mariamo* 'she was not'. Possibly this was narrator's comment instead of part of the story.)

Note: Cã pacore pisumaiami is sufficient in Tucano to show frustration but Northern Barasano needs the other two sentences to establish frustration.

- (41) Deco yucw casero deco marl yejecă añuro marire di o'ocă'pɐ.
half tree bark half we cut-when well to-us sap it-gave

Mejo wapa maripă marire.
but gain it-is-not to-us

'When we cut the tree bark in half it gives us sap well but there is no gain to us.'

9.2 Frustrated Modality

- (42) Pïro cãre wejësĩ'rimipɐ. Wëritipɐ. Că pïro pagapɐ
boa him he-wanted-to-kill he-didn't-die he boa stomach

dujipɐ.
he-sat

'The boa wanted to kill him. He didn't die. He sat in the boa's stomach.'

Footnotes

1

The questionnaire was translated into Tucano, Desano, Guanano, Tatuyo, Northern Barasano, Southern Barasano, Tuyuca, Yurutí, and Coreguaje. All except the latter are members of the Eastern Tucanoan language family. Coreguaje is a member of the Western Tucanoan language family.

The language names have alternate spellings in previous publications. Only those which are quite different will be listed here. Guanano has been written as Wanano and Uanano; Northern Barasano as Barasano and Bara; Southern Barasano is known as Janena by the people themselves and as Paneroa in some of the literature. (See Sorensen, 1967)

2

Tagmeme is a term to describe a function in a given construction with the set of fillers which expound the function, for example subject (the function) is expounded by nouns and noun phrases (the set of fillers).

3

The alternative analysis is to consider the medial verbs plus the final verb as a compound verb stem. This is feasible since no other item can come between the verbs. If this analysis were chosen the Close Sequence Sentence would be considered as a Simple Sentence.

4

The alternative analysis is to consider the above example as a rare sentence type unified by phonology and with the deletion of the verb in the second base.