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On the variants of Newari vowels: A study in phonological non-alignment

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TYPOLOGICAL DISHARMONY AND ERGATIVITY IN GUAJAJARA[1]

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0.   Introduction

The purpose of this paper is to present some results of research on Guajajara (G), a Tupi-Guarani language of Northeast Brazil, with the hope of contributing some facts of interest to universal grammarians.[2]

Guajajara is unique in that due to its particular combination of morphological and syntactic traits, it is inconsistent in terms of commonly discussed typological parameters.

Some features of interest are:

1. Double cross-referencing of core NPs.
   a. General accusativity in cross-referencing pronominal clitics attached to the end of clauses.
   b. Mixed ergativity with accusativity in the cross-referencing pronominal verb prefixes.

2. Registration in the verb of topicalization of oblique nominals.

3. The division of clauses into spans for the purposes of placement of tense, and other clitics, with no regard for the particular syntactic relation that the material of a span has to the clause as a whole.

4. The ergativity-accusativity splits, none of which are unique in themselves, but whose combination in G may be unique. Those splits are on the basis of independency-dependency of the verb, volitionality of the subject, on whether or not the subject of the dependent intransitive verb is the same as the subject of the independent verb, volitionality of the subject, and whether or not the subject of the dependent intransitive verb is the same as the subject of the independent verb, and on whether or not the verb in the sentence is preceded by an oblique nominal such as locative, or by an adverb. A split also may be conditioned on the relationship of object to subject on the agency hierarchy.

1. Typological Disharmony in Guajajara

Some characteristics that make for typological disharmony are the following:

1.1 Dominate Order in Independent Clauses

Although Guajajara is verb-final in dependent clauses (with some exceptions made for heavy shift), the dominant order in independent clauses is VSO, in the rare cases where both S and O 3rd person nominals are present. Example:

(1) u-munyk   t-azyr   i-petym   h-eraha   i-zupe   aʔe.
    3-lit   3-daughter   3-tobacco   3s-taking 3s-to   3

'His daughter lit his cigar (and took it) to him.'

A check of 200 pages of recorded texts of various kinds, mostly narrative, yields only the following basic types in independent transitive clauses when both S and O are present: VSO, 19 clauses; VOS, 4; SVO, 3; SOV, 2. There no recorded cases of OVS or OSV.

Sample sentences from text are given in the appendix. Further research by elicitation confirms lack of the orders OVS and OSV. When assignment of subject and object is unambiguous due to the semantics involved, a certain amount of latitude in word order is permitted.

For example, in the following sentence only the woman can be the agent and the mango the patient:

(2) <u>u - ?u</u>   <u>kuzə</u>   <u>məŋ.</u>
    3 - eat   woman   mango

'The woman ate the mango.'

In examples of this sort the orders VSO, SVO, SOV, and VOS are all acceptable, but OSV and OVS remain unacceptable.

However, when assignment of subject and object is potentially ambiguous, the subject strictly precedes the object, though the verb may occur initially, medially, or finally. This phenomenon can be schematized as follows (where both nominals belong to the same selectional sub-class, i.e., animate, human):

> VNN   is interperted as VSO
> NVN   is interpreted as SVO
> NNV   is interpreted as SOV.

That is, the first unmarked nominal in each case is interpreted as S, the second as O.

Thus sentences of the type 'John kill Bill, kill Bill John, etc.', gave, in a recent elicitation session with Floriano Gomez, a uniform interpretation. The first core nominal (N with no post-position) to occur was interpreted as subject, the second as object. Example:

(3) <u>u - zuka</u>   <u>Zuəw</u>   <u>Pet.</u>
    3 - kill   John   Peter

'John killed Peter.'

As alluded to earlier, Guajajara is a language which is predominantly verbal. Nouns which are understood in the context are dropped, and are not replaced with pronouns. Nevertheless, on the rare occasions in text when the core nominals S and O both occur, two-thirds of these sentences show the order VSO, and one third combine the other three permitted orders: VOS, SVO, SOV.

The preceding discussion has shown that word order has variability of grammatical information load. When not called upon to signal grammatical function, the order does not (necessarily) do so. But when selectional ambiquity is possible, the order of the core nominals is called on to signal the grammatical function of those nominals. The position of the verb will tend toward its favorite spot before the nominals.

1.2 Guajajara is Post-Posing.

This is consistent with OV, not VO languages.

(4) o - sok   təzəz   h - erah   yŋu?a - pupe   no.
    3-pounded   without.result 3 - take   mortar-in   again

'She pounded it (taking it) in the mortar again.'

1.3 Genitive-Nominal Order

Guajajara has the strict order Genitive-Nominal, consistent with OV.

(5) u - hem   zekaipo   o - ho mykur-rekuhaw-pe.
    3-arrive distant.past   3-go   possom's-dwelling-at

'Going along she arrived at Possom's place.'

1.4 Yes-No Question Particle

The yes-no question particle generally comes first, more consistent with VO than OV.

(6) u   aipo   ere - iko ko - rupi   kyn.
    oh question.marker   2s-are   here-along woman.speaking.to.woman.

'Oh, you're here.'

However, the yes-no question particle can also appear in final position.

(7) ere - ho aipo.
    2s-go   question.marker

'Did you go?'

1.5 Interrogative Words

Guajajara puts interrogative words first, more consistent with VO than OV.

(8) marəzəwetuen   he-rereko - pe   ra-é.
     why   me-treat-second.person.acting.
     on.first q.marker.for.immed.past

     'Why did you treat me like that?'

(9) Ma'e ere - zapo   Ø - iko.
     What 2s-do   2s-continuative

     'What are you doing?'

1.6 Volition and Purpose

Volition and purpose verbs follow main verbs. This is generally more consistent with VO than OV.

(10) a - ha   putar   ihe nehe   kury
     is-go   future   I future now.

     'I'm going to go now.'

The form putar when used as a main verb means 'to want'. It has specialized as a modal meaning 'future'.

1.7 Inflected Auxiliary

The inflected auxiliary always follows the main verb, as in consistent OV languages.

(11) ere   -   zewyr   e - zuwə.
      2s-return   2s-coming

      'You returned.'

Auxiliaries comprise a small class of verbs indicating direction, position or aspect. Verbs which can occur as auxiliaries have an auxiliary paradigm that differs in some respects from their independent, dependent, and oblique topicalization (ob.top.) paradigms. The (irregular) singular paradigm for 'come' will illustrate this.

	Ind	Aux	Ob.top	Dep
1s	a-zur	tuwə	----	he-zur-mehe
	1s-come	my.coming.mode	----	1s-come-when
2s	ere-zur	e-zuwə	----	ne-zur-mehe
3s	ur	wə	tur	tur-mehe/ur mehe

1.8 Nominal-Adjective Order

Guajajara has the order Nominal-Adjective, generally more con-sistent with VO than OV. This will be discussed below as a permissible order in (OV) Basque type languages.

(12) <u>inamu - siŋ</u>   <u>zekaipo</u>   <u>h - eimaw romo.</u>
      nhambu(bird)-white distant.past 3s-pet   was

'His pet was a white nhambu bird.'

Adjectival ideas may also be expressed by inflected stative verbs. When these are used, they occur clause-initially following the basic VS order of the language, and cannot be considered part of the noun phrase.

(13) <u>h - urywete</u> <u>Zuəw</u> <u>a?e.</u>
      3s - happy   John   3

'John is happy.'

1.9 Demonstrative-Noun and Number-Noun

Guajajara has the generally more VO-consistent order Demonstrative-Noun and Number-Noun.

(14) <u>mukuz</u> <u>kwaharer</u> <u>wə</u>   <u>kury.</u>
      two   boys   plural   now

'They now became two boys.'

(15) <u>?əŋ</u>   <u>təpuz - me</u> <u>h - eko - n</u>
      that   house - in   3 - be - ob.top.register

'He is in that house.'

1.10 Comparative Constructions

In comparative constructions, the order is Adjective-marker-standard.of.comparison (VO consistent).

(16)
Ø - uhua?u	wera?u	i - zuwi	a?e
3 - big	more	3 - than	3

'He is bigger than him.'

1.11 Place Names

Guajajara has the order Proper-Common with place names.

(17) Merez taw.
'Belém city.'

But, Common (title) - Proper with person names.

(18) tuihaw Zekin.
'Chief Zekin.'

1.12 Noun-Postposition

Guajajara has the ordering Noun-Postposition but the inflectional and derivational affixes are prefixes, consistent with Preposition-Noun and VO.

(19) w - esak.
3-see

'He saw it.'

(20)
u - ze - esak.
3 - reflexive - see

'He saw himself.'

(21) he - resak.
1s - see

'(He) saw me.'

In summary, G splits the group of major typological characteristics thus:

OV characteristics: N-Postposition, Genitive-N, MainV-Aux,
Common-Proper(person);
VO characteristics: QInterrog-S, MainV-Volitional, N-Adj,
N-Rel, Dem-N, Num-N, Adj-Marker-Standard.of.comparison,
Proper-Common(place).

It seems reasonable to hypothesize that G is a language in
transition from one major type to another. If this is not the case,
then we must be prepared to accept previously unknown stable states.
There aren't many languages around with this kind of disharmony, if
we take previous work in the field to be representative.

2. Groups of Consistent Languages

Consistent languages of the two basic types OV and VO harmonize
with the ordering features as charted below. Generally a nominal is
related to Preposition (Prep) or Postposition (Pos) in the same way that
the object nominal is related to V. The nominal modifiers Adjective
(Adj) and Genitive (Gen) are related to N as O is to V. Thus the
indicated combinations are compatible for OV and VO types respectively:

OV Type: O-V   N-Pos   Gen-N   Adj-N

VO Type: V-O   Prep-N   N-Gen   N-Adj

Consistent VO languages form two of the largest types (Greenberg
1963: 87,8):

Type 1, VSO, Polynesian and many others

Type 2, SOV, Romance and many others

Consistent OV languages form one of the largest type;
Type 23, SOV, Japanese and many others.

The only other type with a substantial number of languages and
families is type 24, the Basque type (OV, N-Pos, Gen-N, N-Adj) with
the N-Adj feature being inconsistent. A number of other language types
permit Adj-N/N-Adj inconsistency. Only a few languages allow Prep-N/
N-Pos and Gen-N/N-Gen inconsistency, confirming that these two features
are more faithful to type.

Hawkins (1979:645) shows that the C-Adj disharmony is permissible
in a large number of languages. According to his tabulation (my
adaptation), of the languages studied,

consistent	OV	N-Post	Adj-N	Gen-N	has 29 languages,
slightly inconsistent	OV	N-Post	N-Adj	Gen-N	has 24,
whereas	OV	N-Post	N-Adj	N-Gen	has only 7,
and	OV	N-Post	Adj-N	N-Gen	has none.

Greenberg (1963:79) discusses the forces that make N-Adj less
true to type. If we take OV/VO, N-Post/Prep-N, and Gen-N/N-Gen
as the 'core', we can add to our original three completely consistent
types (1, 9, 23) the core-consistent types 2 (VSO, a fair number of
languages), 10 (SVO, Germanic and others), and 24, (SOV, the largest
core-consistent type with almost as many languages as groups 1, 9,
and 23.)

Group 24, the Basque type, has languages from various stocks
and areas. The N-Adj inconsistency, therefore, appears to be quite
tolerable. Kanela (Popjes, 1972) and a number of other languages of
the Ge family (Brazil) appear to be of this type. Mundurukú
(Crofts, 1973) a Tupian language of Central Brazil, also appears to
be of this type. Besides being of the same type, these two languages
have the characteristic of pure morphological ergativity in the cross-
referencing of core nominals by verb prefixes (i.e., agreement with the
absolutive: the subject of intransitives and the object of transitives),
but no case marking.

For convenience we will refer to languages with Basque typology,
ergatively organized verb prefixes, and no case marking as the Central
Brazil (CB) type. We notice that many Australian languages, a number
of which manifest ergativity in the morphology, belong to the core-
consistent Basque type. It may turn out to be the case that there is
some sort of compatability of the Basque type with morphological
ergativity.

3. Guajajara and Type 8

We now turn to G to see if we can situate its tendencies in
typological space. Of the various types listed (Greenberg, 1963;
Hawkins, 1979), G fits under type 8, (VSO, N-Post, Gen-N, N-Adj).
In Greenberg and Hawkins there are no examples for type 8. In fact,
this particular combination is excluded from the realm of possibility
in the Hawkins article. G inconsistency can be seen in more detail in
this table. (Items not harmonizing with the VO/OV feature are
underlined in each string.):

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Dependent clauses:     OV  N-Post  Gen-N  N-Adj
Independent clauses:   VO  N-Post  Gen-N  N-Adj
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Of Hawkins' (1979) six implicational universals, G clearly violates number II:

$$VSO \supset (N\text{-}Adj \supset N\text{-}Gen)$$

The basic order, statistically two-thirds of the cases occurring in native speaker monologues, is VSO. A word of caution is in order with respect to this problem. As mentioned above, only a very small proportion of transitive clauses actually contain both a nominal S and a nominal O. In 200 pages of text, there were less than 30 such sentences. We will say more about the predominantly verbal, verb-initial, and subject-suppressant character of G in section 16. N-Adj is the only order found inside the noun phrase. N-Gen does not occur. The possessor noun always precedes the possessed.

4. Guajajara in the Process of Changing Type

Without entering into the theoretical details, we assume as a working hypothesis, that if the basic order (OV/VO) changes, there is pressure in the system to rearrange other elements to conform to known harmonic principles. G may be in the process of such a major typological shift. The fact that G has attained such a degree of disharmony as to be considered of an impossible type should be an important datum for future studies.

If we look at the Central Brazil (CB) type mentioned earlier, we see a set of features consistent with Basque and many other languages. Our first approximation until more detailed information becomes available is that Kanela and Mundurukú are conservative CB languages that have stabilized in a consistent Basque pattern. Since Guajajara is like Basque (OV, N-Post, Gen-N, N-Adj) except in the VSO order of independent clauses, it is tempting to reconstruct an earlier stage Basque type for G. The VO innovation in G may be historically coinciding with creeping accusativity in the verb cross-referencing system. The fact that Mundurukú and Kanela (1000km apart and belonging to different linguistic stocks) have similar stable typological traits leads us to tentatively propose CB as the older areal type from which some Tupi-Guarani languages began to diverge. This assumption helps to provide at least one model for discussing G disharmony, especially since dependent clauses, nominalizations, and oblique-topicalized clauses maintain the consistent Basque OV type.

We hypothosize, then, that G was a Basque -CB language at
an earlier stage (OV, N-Post, Gen-N, N-Adj), which suffered a
change of basic order in independent clauses to VO. Some of
the less stable non-core traits mentioned earlier are beginning
to line up with the new VO order. If this very preliminary re-
construction is accepted, we find a fascinating parallel, in that
accusativity based on the agency hierarchy (Silverstein, 1976) is
making inroads into the very same type of clause as the OV-->VP
feature, namely, the independent clause.

5. Guajajara Cross-referencing.

G syntax has been described by Bendor-Samuel (1973), where a
hierarchical model is applied to the phonology and syntax. I will
add some other notes to highlight the features that interest us here.

Person-number (P-N) cross-referencing of core NPs takes place
in two ways. There is a prefix on verbs that cross-references the
P-N of either Subject (S) or Object (O), depending on factors such
as the Independent/Dependent dichotomy and the agency hierarchy.
This cross-referencing is described in more detail in sections 8-15.

Cross-referencing also occurs by means of a clause level
clitic pronoun. A G main clause has one or more phrases of various
types (N, V, Adv, Postpositional). This series of phrases is divided
into spans marked by span-final clitics. There are sentence-initial
particles, clitics that come after and mark the end of the first
span (the first phrase, whatever its content), and a clitic that comes
after nuclear elements (N,V.) but before the oblique peripherals of time,
place and other adverbials (marking the third span). There are also
seven orders of sentence final clitics, marking the end of the final
span. The term 'span', for this feature, is taken from Priest, Priest
and Grimes (1961). The first of these clause-final clitics is the
cross-referencer pronoun. Examples double underlined:

(22) u-kwaw   kakwez   ze?eŋ-ete   i-muŋeta-haw a?e wə kury.
      3-know   dist.pst.attested   language-true   3s-read-nom   3   pl   now

      'They know how to read the true language (G) now.'

(23) u-?aw   u-pə   kwez   pe-pe.
      3-lie.down   3-prone.position   immediate.past   there-at

      'He lay down over there just now.'

The freer sentence level pronouns, are:

(24) <u>ihe</u> <u>ne</u> <u>zane</u> <u>ure</u> <u>pe</u> <u>aʔe</u>
    <u>is</u> 2s 1pl.in 1pl.ex 2p 3

The (near copy) bound prefixes of set A (see section 8) are:

(25) <u>he-</u> <u>ne-</u> <u>zane-</u> <u>ure-</u> <u>pe-</u> <u>i-</u> (with allomorphs)

    <u>i-</u> is 3rd person singular and plural with independent descriptive verbs. In dependent verbs, nominalizations and other forms, <u>i-</u> is 3s and <u>wa-</u> is 3pl.

    It may appear that the final cross-referencer clitic is simply a pronoun like any other, with an interesting distribution. However it really acts like a sentence suffix. Although it is often suppressed for discourse related reasons, it is not a pronoun like the 3rd person anaphoric pronouns he, she, and it of English. It can occur to cross-reference a full nominal that is already present in the clause. This is not a normal characteristic of anaphoric pronouns. An example given earlier bears this out.

(26) <u>u-munyk</u> <u>t-azyr</u>   <u>i-petym</u>   <u>h-eraha</u> <u>i-zupe</u> <u>aʔe</u>
    3-lit   3-daughter 3-tobacco 3-take 3-to 3

    'His daughter lit and took his cigar to him.'

    <u>Aʔe</u>, the final particle, normally cross-references the P-N of the Subject (in this case, the daughter). Since it is more affix-like in this respect, it is unusual in that one expects cross-referencing affixes to be bound to verbs, not to clauses as a whole. Clauses with the core nominals S and O have cross-referencing patterns thus: Dependent...o-V...s; Independent, higher ranked acting on lower ...s-V...s; and lower ranked acting on higher ...o-V...s. This marking, and the ergativity or accusativity associated with it will be discussed in detail in sections 7-12.

6. <u>Grammaticized Topicalization of Oblique Elements in Guajajara</u>

    Another unique feature of interest is the grammaticized topicalization of oblique elements. If an adverb or a post-positional phrase is moved (for discourse-related reasons) to the front of a clause, or at least to a position before the verb, and if the subject is third person, the verb marking is (ergative-) absolutive as in dependent clauses, and the Oblique-topicalization is registered in the verb by the suffix -n (-∅ after consonants). This phenomenon is called 'inverted sentence' by

Bendor-Samuel (1972) and 'Indicativo II' by Rodrigues (1953). It
is not a true promotion, in the sense that passive promotes a direct
object to subject. Although there are changes in the verb, a transi-
tive verb remains transitive, and the oblique element that would seem
to be promoted does not lose its oblique marking (postposition). If
true promotion occurred, a locative nominal, for instance, would
lose the postposition that marks it as a locative. Oblique-topicaliza-
tion triggers registry in the verb, but not agreement. Compare the
following examples for the contrast between normal and oblique-fronted
sentences with otherwise the same elements.

(27)(a) w-iko a?e-pe.   (b) a?e-pe   h-eko-n.
        3-b3 there-at   there-at 3s-be-ob.top.register

        'He is there.'   'He is there.'

(28) wa-zaryz   ko-pe   h-eko-n   u-ma?ereko-pə.
      3pl-grandmother field-at 3-be-ob.top.register 3-work-ing

      'Their grandmother was at the field working.'

(29) ka?a-pe   ure-reraha-n.
      jungle-to   1pl.excl-take-ob.top.register

      '(He) took us to the jungle.'

   This type of construction tends to be used in narrative to mark
collateral information that is not part of the narrative line. In
some dialects it is falling into disuse, occurring commonly only with the
intransitive verbs go, come, and be. In the data given here the
reader will notice the severe allomorphy, the historical reasons for
which are outside the scope of this paper. The element r-(n-t,t-,h-)
that occurs when a prefix of set A comes together with a vowel initial
stem, is here written as part of the stem. This will be discussed in
more detail in section 8.

(30) (a) o-ho '3-go'; (b) i-ho-n '3s-go-ob.top.reg';
     (c) wa-no-n '3pl-go-ob.top.reg'.

(31) (a) Ø-ur '3-come';(b) Ø-tur-Ø '3s-come-ob.top.reg';
     (c) wa-nur-Ø '3pl-come-ob.top.reg'.

(32) (a) Ø-heko-n   '3-be-ob.top.reg';
     (b) wa-neko-n '3pl-be-ob.top.reg';
     (c) w-iko '3-be'.

7. The Accusativity-Ergativity Split in Nominal Cross-Referencing

There is no case marking of core nominals in G. The accusativity-ergativity distinction refers to the cross-referencing of the person and numer of core nominals in the verb prefixes. Nominative(-accusative) cross-referencing (following Dixon, 1979) occurs when the prefix agrees with the intransitive subject (Si) and the transitive subject (St). Absolutive (-ergative) cross-referencing occurs when the prefix agrees in person and number with the Si and the O.

Nominative cross-referencing:

(33)　a-ha-putar.
　　　　1s-go-future.

　　　　'I will go.'

(34)　a-esak　kakwez　　　　　　　　ka?i　　ihe
　　　　1s-see　distant.past.attested　monkey　I

　　　　'I saw the monkey.'

Absolutive cross-referencing:

(35)　he-rurywete　ihe.
　　　　is-happy　　　I

　　　　'I'm happy.'

(36)　he-kisi　takihe-pupe　a?e.
　　　　1s-cut　knife-with　　he

　　　　'He cut me with a knife.'

8. The Control/Non-Control Split.

G manifests a nominative-absolutive split along several axes. The first is a split of the intransitive verbs into the control (volitional) versus non-control types. This is the Guarani system referred to in Gregores and Suarez (1967). Guarani is a language of the Tupi-Guarani family with which G shares, this basic trait. The control vs. non-control (volitionality) split is discussed in Dixon (1979). In G, descriptive, subject-not-in-control verbs such as -urywete 'happy' take one set of prefixes, set A:

he- '1s', ne- '2s', zane- '1pl.in', ure- '1pl.ex', pe- '2pl', i- '3pl'

Active, subject-in-control intransitive verbs like -ha 'go' take
another set of prefixes, set B:

a- '1s', ere- '2s', za- intrans. '1pl.in', uru- '1pl.ex', pe- '2pl' u-'3'
                    si- trans

The prefix u- has the allomorphs w- before vowels and o- by umlaut with
roots where all vowels are o. The prefix uru- follows the same umlaut
rule, resulting in oro-. Set A prefixes are also used to cross-reference
possessor (genitive), and object of a postposition. Other details
do not concern us here. Several verb paradigms are given in the appendix
to serve as examples of the use of these prefixes with various verbs.

Set A prefixes are followed by an allomorph (n-, ti-, h-, or Ø-
of the morpheme r- which, in transitive verbs, seems to have the meaning
'anomalous Agency hierarchy relationship of S to O' or in intransitive,
'non-control of the action by the nominal cross-referenced'. The allo-
morph Ø occurs with consonant-initial stems (and is not written in our
examples). n- occurs with (historically nasalized) forms pe- and wa-.
t- occurs with certain irregular forms for the third person singular,
and h- occurs with many (more regular) vowel-initial stems. r- is the
norm with other set A prefixes and occasionally with nominals. Certain
peculiarities of prefix use with intransitive verbs, nouns, and post-
positions are outside the scope of this paper. In examples where it is
not in focus we write it as part of the stem.

See the appendix for complete paradigms of various verbs.

9. The Agency Hierarchy Split.

A major point of this paper is to show how the control/non-control
distinction for the S of the intransitive clause correlates with the S-O
status of the higher ranked, cross-referenced core nominal of the
independent transitive clause. First, recall that in dependent clauses,
G maintains OV order. This is coupled with pure ergativity in the verb
prefix cross-referencing system (agreement with S of intransitives
and O of transitive). In independent transitive clauses, however, where
the predominant order is VSO, G verbs show a marking split based on the
agency hierarchy (Silverstein, 1976), simplified here to 1st ≯ 2nd ≯ 3rd
person, where 'x > y' reads 'x outranks y'. With this hierarchy in
mind (discussed in detail in Dixon (1979) in relation to ergativity),
we can make the following observations:

In independent transitive clauses in G, the higher ranked core-
nominal will be cross-referenced on the verb. If that nominal is S,
the appropriate prefix from set B (control) is used. If that nominal
is O, the appropriate prefix from set A (non-control) is used.

the appropriate prefix from set B (control) is used. If that nominal
is O, the appropriate prefix from set A (non-control) is used.

Thus, by choice of prefix, the Subject nominal is associated with
the S-in-control of intransitives and the Object nominal is associated
with the S-not-in-control of intransitives. In this, G shows similarity
with the Wichita system. However, in Guajajara, this only happens in
Independent clauses.

10.   The Control Vs. Non-control Theme in the Accusativity-Ergativity
            of the Prefixes

Where the subject of intransitive verbs (Si) and the object of
transitive verbs (0) are cross-referenced by set A prefixes, the agree-
ment is with the absolutive. To conform to common terminological
practice, we will say that this sub-system manifests ergativity. Where
the (Si) and the subject of transitive verbs (St) are cross-referenced
by set B prefixes, the agreement is with the nominative. We will say
that this sub-system manifests accusativity. In independent normal
(non-oblique-topicalized) intransitives, set A prefixes occur with
verbs of the non-control type (i.e. 'unaccusative' verbs in Relational
Grammar terminology), that is verbs which describe color, appearance,
size, emotional state, etc. In normal independent transitive verbs,
set A prefixes cross-reference the O when it outranks the S. Thus we
see that set A cross-references the absolutive, in a sense, the nominal
not-in-control of the action.

(37) he - rurywete.
      1s - happy

      'I am happy.'

(38) he - resak.
      1s - see

      '(He) sees me.'

In independent normal intransitives, set B prefixes occur with
verbs which fall into the active or control set: run, sit, sleep, etc.
In independent normal transitives, set B cross-references the S when it
outranks the O. Thus, set B cross-references the nominative, in a sense,
the nominal in-control of the action.

(39) a - zən.
      1s - run

      'I run.'

(40) ere - sak.
     2s - see

    'You see (him).'

    Thus in independent normal verbs there is a definite correlation as shown in this table:

       Nominal-in-control   ==Nominative==Set B

       Nominal-not-in-control==Absolutive==Set A

    Oblique topicalization triggers a change from Nominative to Absolutive cross-referencing. In dependent intransitive verbs in 3rd person, there is also an interesting return to nominative cross-referencing if the subject is the same as the subject of the main verb. It is difficult to see what this has to do with control in the semantic sense by which it divides the class of intransitive verbs. It seems to be a case of using one morphological distinction for many semantic distinctions.

(41) i - ho - re   a - ha.
     3 - go - after 1s - go

    'After he went, I went.'

(42) o - ho - re   u - zai?o.
     3 - go - after 3 - cry

    'After he left, he (same person) cried.'

    All other dependent intransitives and all dependent transitives have absolutive cross-referencing.

(43) he - resak - pə.
     1s:abs - see - in.order.to

    'In order to see me '

    The known universal tendency of dependent verbs to be more resistant to typological change helps us to develop our hypothesis further with respect to Guajajara. Dependent verbs manifest (almost) pure ergativity. Independent verbs manifest 'creeping' accusativity when the conditions are right, i.e., when the ranking nominal is in control.
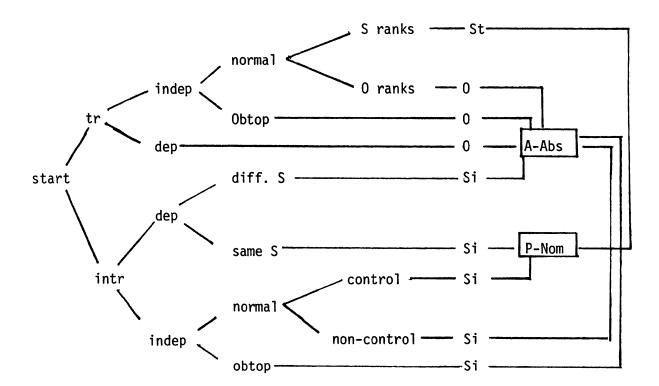
11. The Various Splits Together

    The following is a (non-unique) schematization of the choice of prefix set for each sub-group of verbs, with an indication as to which nominal (S or O) is being cross-referenced in each case.
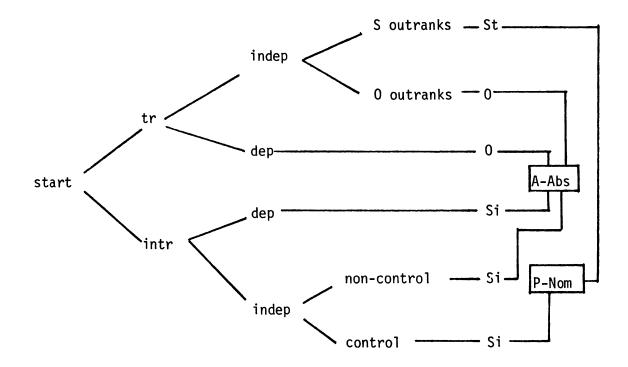
Included are the following splits, embedded in a decision tree
which represents the kinds of things a speaker must take into account
when choosing a prefix set.

1. Control vs. non-control of S in intransitive independent normal
   (i.e. not oblique topicalization) clause

2. Agency hierarchy of transitive independent normal clause

3. Independent vs. dependent clause

4. Oblique topicalization vs. normal clause

5. Different vs. same subject of intransitive independent.

Once the prefix set is chosen, the choice of prefix in the set
is dertemined by the person-number of the nominal to be cross-referenced.

Leaving out the question of same-different which only occurs with
third person subject and leaving out oblique-topicalization which
also only occurs with third person subject, we have the following
simplified tree which reflects the major splits. (Because the
'same-different' and 'oblique-topicalization' are limited to third
person subject they seem to be patch-on utilizations of existing
distinctions).

12.   Guajajara a Counter-Example to Generalizations about Ergativity

We see a split, then, which Dixon (1979: 85) would say is based on the semantic nature of NPs (agency hierarchy). The analogous split in intransitives between control and non-control is based on the semantic nature of those verbs. The system is further split on the dependent (pure ergative) — independent (mixed) axis. If we assume the pure-turning-to-mixed model of syntactic change (discussed earlier) for G, creeping accusativity mostly manifests itself in independent verbs when the S outranks the O. This combination of facts makes A a counter-example to certain generalizations about ergativity in languages studied so far.

Dixon (p.90) says that 'a language with split conditioned by the semantic nature of NPs, but realized by cross-referencing affixes is.... unlikely...' and 'can be seen, on a priori grounds, to be rather implausible.' It appears, then that it is not only in the basic typological characteristics that G is unusual. We see that the particular manifestation of ergativity-accusativity in G is also unusual.

Dixon (p.91) also says, 'I know of no examples of languages that combine a split conditioned by the semantic content of the verb with a split conditioned by the semantic content of NPs, where both splits are realized in terms of morphological marking of the same kind.' If I have understood his observation correctly, it appears that G constitutes a clear counter-example, since intransitive verbs are split on the control vs. non-control axis and transitive verbs by the semantics of nominals.

G is similar to Algonkian in that it takes the agency hierarchy into account, but different in that the ranking in Algonkian is signalled by a separate affix. In G, the ranking is signalled in the choice of the core nominal to be cross-referenced.

The crucial difference, as pointed out to me by Desmond Derbyshire (personal communication), 'is that G signals the ranking with two different sets of prefixes while Algonkian uses the same set of affixes but signals the ranking with a distinct verbal affix.'

Although the G system does not lead to the anarchy alluded to in Dixon (p.91), I can attest to the fact that indeed it does not facilitate the learning of the language as a second language by an adult whose first language is of the canonical accusative type.

Dixon (p.92) expects cross-referencing systems to be on a nominative-accusative pattern. G is therefore a partial counter example to this. The freer sentence clitics do indeed cross-reference the nominative (see section 6). However the bound verb prefixes, of which the non-control set are near copies of the clitics (see Steele, 1978 on free word-order languages), manifest the Independent vs. Dependent, control vs. non-control and Agency Hierarchy splits mentioned above, where much of the time the agreement is actually ergatively organized, that is, the absolutive is cross-referenced.

Dixon also states that if there is a bound-free split in cross-referencing affixes, the bound forms will be accusative and the free forms will be ergative (as in Murinyapata) --never the other way around. G, of course, is a clear counter-example to this. The free forms cross-reference the nominative, the bound are split, and often agree with the absolutive.

13. Some Data from Other Brazilian Languages

Kanela and Mundurukú, two CB languages, provide additional evidence against the universality of a bound-free split of the form predicted by Dixon. In the following examples I have assumed that the subject is cross-referenced in intransitive verbs. Only examples of the transitive are given. Kanela is SOV (Popjes, 1972). In a typical paradigm the person and number for both core participants in a transitive sentence are cross-referenced: A free pronoun comes first, cross-referencing the nominative and a bound verb prefix cross-references the absolutive. (If two free third person nominals occur, the order is strictly SOV and no phonological prefix occurs.) Thus, the free pronouns are on the nominative-accusative pattern and the bound are ergative-absolutive, a clear counter-example to Dixon's generalization.

Mundurukú (Crofts, 1973) has what appears to be a control vs. non-control split in intransitives, with prefixes indexing person and number of Si. Available evidence points to a preferred SOV order for core nominals.

(44) apat   poy   oñiñ.
      alligator turtle   caused.to.enter

      'The alligator made the turtle enter the hole.'

      (Crofts, 1973: 114).

In an (unmarked) transitive paradigm where both S and O are cross-referenced as to person-number, the free pronoun indexes the S and the bound pronoun indexes the O, (p.180-182). It may be, then, that there exists a basic CB type whose further characteristics also are counter-examples to previously attested morphological structures.

(45) õn   ey - mipãipãm.
     ‾1‾s   2‾p‾‾-‾ hit

'I hit you.'

(46) ẽn   o - mipãipãm.
     ‾2‾s   1‾s‾‾-‾ hit

'You hit me.'

Once again, free forms are nominative-accusative and bound, ergative-absolutive. Further investigation needs to be made as to the frequency of these characteristics (Basque type, free-nominative, bound-absolutive) in Brazilian languages.

Cinta Larga (Tupi stock, Sandberg, 1976) manifests an interesting variation. Main clauses have an auxiliary (translated here 'do') which cross-references the person-number of the subject of transitive verbs. Main verb prefixes cross-reference 0. (Length and tone are left out of the transcription.)

(47) nike - ey   ãga   pa - wa.
     ‾fly‾ ‾-‾ p‾l   do(3pl)   ‾1p‾l‾-b‾i‾te

'The flies are biting us.'

(48) ikonõ   ma   motop   ∅ - wa.
     ‾eagle‾   d‾o‾(3‾s)   ‾rat‾   3‾ -‾ eat

'The eagle is eating the rat.' (The auxiliary is highly irregular.)

The pattern in graphic form is:

    st-AUX   o-TrV

    si-AUX   si-IntrV,

Where st indicates a prefix cross-referencing the subject of a transitive verb, si the subject of an intransitive verb, and o the object of a transitive verb. The auxiliary affix cross-references the nominative (-accusative), while the main verb prefix cross-references the absolutive (-ergative). This may be a development of basic CB cross-referencing where the auxiliary became obligatory to serve as a place to attach the nominative cross-reference affix.

    CB: st   o-TrV

           si   si-IntrV

Guajajara, which is somewhat representative of the Tupi-Guarani family, maintains this classical CB marking in dependent clauses, but evidences a split in independent clauses. It also varies from the classic CB pattern in that the freer clitic comes after all major clause elements.

```
Dependent     ...s-IV...s          or          ...o-TV...s
Independent   ...s-IV...s          or          ...s-TV...s
              ...s-IV...s, if O outranks S,  ...o-TV...s if S outranks O.
```

14.   On the Possible Genesis of the Present State of Affairs

Our present (but by no means demonstrated) working hypothesis is that at various stages in the past Guajajara had the following characteristics:

1. It was an OV language. Evidence for this is the rigid OV ordering in dependent clauses and the ordering of the conservative core traits Noun-postposition and Genitive-Noun.

2. There was a set of free pronouns which cross-referenced person and number. The free pronoun may have been used equally to mark the S or the O core-participant as needed. Further evidence for this comes from genetically and areally related languages with this stable structure.

3. The order at stage 2 was SOV in transitive clauses.

4. At some point O became more attached to V. Nouns (O) were loosely attached (still seen in incorporation in dependent verbs and nominalizations); pronouns (o) were more firmly attached. At this point there was CB marking (s...s-IV; s...o-TV).

5. Subsequently the s pronoun shifted to the end of the sentence, and began to act like a (sentence) suffix in its rigidity of ordering with respect to other suffix-like sentence-ending clitics, and with respect to the possibility of its co-occurrence in the same clause with the nominal it was cross-referencing (s-IV...s; o-TV...s).

6. At some point the verb moved to initial position in most types of independent clauses.

7. Accusativity began to creep into the independent clauses when agentivity of S was higher than that of O, that is, when the normal agentivity relationship of S and O occurred in a clause.

One cannot help but feel, if these hypotheses are correct, that the present core typological disharmony (VO, N-Post, Gen-N) of G is related

to some of its other unique features which we have described
(double cross-referencing, variously motivated splits, and oblique
topicalization registration).

Passive as a source for morphological ergativity has been
discussed by various investigators, and arguments from Indo-European
and other situations are convincing for the genesis of ergativity when
it is expressed by case marking. In Guajajara, as in CB, there is no
case marking of core nominals (S,O). Ergativity is of the pure cross-
referencing type. I suspect there are fundamental differences between
these types which reflect different sources for ergativity.

G has no canonical passive, that is, there is no promotion of O
to S with detransitivization of the verb and suppression of demotion
of S to Oblique. Canonical passive puts an oblique case marker on
demoted S. In Relational Grammar terms, as ergativity developes out of
passive, one would expect the oblique (chômeur) marker to become an
ergative case marker. The O, having been promoted to S, has the same
marker as S. Active transitive sentences may disappear and passives
become the only transitive-looking structures. Verb changes may make
them look active again. Ergativity would then be present at the
morphological level, since Si and O would be marked the same way, St
differently.

15. On the Possible Source of CB Type Cross-referencing

Guajajara does not put case markers on the core nominals S and O.
It is likely that the ergativity in CB type cross-referencing has another
source. The possible source outlined earlier can help us begin to see
the fundamental differences. Given free pronouns with the possibility
of cross-referencing either S or O, the o pronouns which are closer
to the verb in SoV, tend to attach to the verb and at some point become
obligatory, they thus occur even when the full nominal also occurs.
In intransitive sentences there is only S, hence SV or sV. S pronouns
attach to the verb (by analogy of proximity). At this point Si and O
are cross-referenced on the verbs, manifesting ergativity of the CB type.

It seems a reasonable hypothesis that the ergativity in G grew out
of such a scenario. I know of no Tupi of Ge language with passive.
The splits that have grown up come from the known natural tendency of
languages to have at least partial accusativity in the morphology. To
be noticed now, and hopefully someday explained, are the facts: that
creeping accusativity occurs in G, in the same clause types as verb-
initialness, and that the possibly older ergativity occurs with the
final clause types. This combination of features may turn out not to be
an isolated phenomenon.

Rodrigues (1953: 127) cites Tupinambá (an extinct coastal Brazilian
Tupi-Guarani language) as having both s and o bound (s-o-V) when the
o is third person, that is , if the S-O relationship on the AH is normal.

(49) <u>a - i - nupã.</u>
　　　1s - 3 - hit

'I hit him.'

This fits in as another possible historical path from our CB model:
SOV and pronouns, s o V, with subsequent attachment of both: s-o-V.
Other features of Tupinamba morphology may eventually be crucial in
deciding questions of this sort.

16.　The Predominantly Verbal Character of Guajajara

　　　Lehmann's (1978:173) observation that passives are especially
characteristic of SVO and VSO further supports the idea that G is a
late-comer to the VSO ranks.　In OV languages, according to Lehmann, the
subject is not mandatory.　Although G is verb-initial in the majority of
narrative-line independent clauses, its basic OV characteristic of
subject suppression is a major feature.　We give here statistics on a
69 sentence passage from the middle of a long culture-hero narrative.
Quote tags of the type "he said to his mother" are counted as independent
clauses.　The directly quoted material is not used in the statistics.
Several sentences from this sample are given in the appendix.

　　　Of the portion sampled, 4 main clauses are non-verbal.　Of the verbal
main clauses, 28 contain transitive verbs, 16 contain intransitive (active)
verbs, 2 contain descriptive verbs, and the remaining 19 are quotation
sentences of the form "...".　Vq (S) (IO) where "..." is the quoted
material, Vq is the quotative verb, S is the subject, and IO is the
person addressed (indirect object).　Two of the tabulated clauses also
contain a dependent clause.　Other abbreviations are: Aux (auxiliary),
L (locative phrase formed with a postposition), Adv (adverb occupying
a clause level major position).　Tense markers and other clitics have
been left out of the tabulation as have certain hesitation words and
certain introductory exclamation words.

　　　Transitive clauses were of the following types (the number of each
type in the sample is also given.　See the appendix for examples of
various types):

Vt (Aux) L   (8)　　　　Vt (Aux)   (5)

Vt O (Aux) L   (4)　　　Vt O (Aux) IO   (4)

Vt S O (Aux) IO   (1)　　O Vt IO   (1)

　　　We see immediately that in narrative transitive independent clauses
Guajajara is overwhelmingly verb-initial (27 to 1), overwhelmingly
subject-suppressing (27 to 1), uses a locative in about half of the
clauses, and suppresses the object in about half of the clauses.

Intransitive active verbs show some similar traits:

```
Vi  (3)                         S  Vi    (1)
Vi  L    (6)                    S  Vi  L   (1)
Vi  Aux  L    (1)               L  S  Vi   (1)
Vi  Aux  L  T   (1)             T  Vi  L   (1)
Vi  L  [Purpose]   (1)
```

We notice that with Vi, S tends to come first in the few examples in the text.

The two descriptive verb clauses had the form Vd, and Vd Aux.

The tags on the quote sentences were of four types:

Vq IO   (11), Vq S IO   (4), Vq   (3), no tag   (1).

The quote tag immediately follows the quote in all cases in our sample.

Combining the various clause types, we notice the following:

1. The overwhelming majority are verb initial (about 90%).
2. The overwhelming majority have no nominal subject (about 90%).
3. A majority have neither O nor S.
4. Where O is possible, about half are suppressed.
5. Over half have locative expressions.

Guajajara is also verb-prominent in another way. In 65 clauses sampled, 64 had verbs, 24 had a locative, 17 had an indirect object,, only 15 had an object, 12 had an auxiliary and the lowest on the list was subject with only 8. There is only one subject for every eight verbs. If verb-prominence ever becomes accepted as an authentic typological trait, Guajajara will certainly qualify as a verb-prominent language. In summary, Guajajara is verb-prominent, overwhelmingly verb-initial, and core-nominal-suppressant, while tending to overtly express locatives even where they could be understood from the context. It is expecially noteworthy for its verb-initialness and for its subject suppression.

As more material is gathered on Brasilian Indian languages, we hope to discover more about the genesis of the typological disharmony in Guajajara and of the various apparent anomalies present in the system it uses for cross-referencing core nominals.

Appendix

Symbols used: 1s=1st singular, 2s=2nd singular, 1pi=1st plural inclusive of addressee, 1pe=1st plural exclusive of addressee, 2p=2nd plural, 3s.p=3rd singular or plural, 3s=3rd singular, 3p=3rd plural. X-Y: X=person and number of Subject. Y=person and number of Object. Note that wə will always be present if 3rd person S, O or both are plural.

Independent normal transitive: -esak   'see':

aesak...(ihe)	1s-3s
aesak...(ihe) wə	1s-3p
eresak...(ne) (wə)	2s-3s.p
sisak...(zane)(wə)	1pi-3s.p and animate
uruesak...(ure)(wə)	1pe-3s.p
pesak...(pe)(wə)	2p-3s.p
wesak...(a?e)	3s-3s
wesak...(a?e) wə	3s-3p, 3p-3s, 3p-3p
Nominative	

heresak...(a?e)(wə)	3s.p-1s
neresak...(a?e)(wə)	3s.p-2s
zaneresak...(a?e)(wə)	3s.p-1pi
ureresak...(a?e)(wə)	3s.p-1pe
penesak...(a?e)(wə)	3s.p-2p
Absolutive	

uruesak...(ihe)	1s-2s (from *a-ru-esak?)
uruesak...(ure)	1pe-2s
apuesak...(ihe)	1s-2p
*urupuesak...(ure)	1pe-2p *not acceptable in all dialects
Nominative	

```
heresak pe...(ne)        2s-1s
heresak pe...(pe)        2p-1p
ureresak pe...(ne)       2s-1pe
ureresak pe...(pe)       2p-2pe
        Absolutive
```

Independent oblique topicalized:
```
heresak...(aʔe)          3s-1s
heresak...(aʔe) wə       3p-1s
neresak...(aʔe)(wə)      3s.p-2s
zaneresak...(aʔe)(wə)    3s.p-1pi
ureresak...(aʔe)(wə)     3s.p-1pe
penesak...(aʔe)(wə)      3s.p-2p
hesak...(aʔe)(wə)        3s.p-3s
wanesak...(aʔe)(wə)      3s.p-3p
        Absolutive
```

Dependent: <u>mehe</u> 'when'
```
heresak mehe             any-1s
neresak mehe             any-2s
zaneresak mehe           any-1pi
ureresak mehe            any-1pe
penesak mehe             any-2p
hesak mehe               any-3s
wanesak mehe             any-3p
        Absolutive
```

Intransitive active independent normal <u>-ker</u> 'sleep'
```
aker...(ihe)             1s
ereker...(ne)            2s
zaker...(zane)           1pi
uruker...(ure)           1pe
peker...(pe)             2p
uker...(aʔe)             3s
uker...(aʔe) wə          3p
        Nominative
```

Intransitive active independent oblique-topicalized

iker...(a?e)	3s
waker...(a?e) wə	3p

    Absolutive

Intransitive active dependent

heker mehe...(ihe)	1s
neker mehe...(ne)	2s
zaneker mehe...(zane)	1pi
ureker mehe...(ure)	1pe
peker mehe...(pe)	2p
iker mehe...(a?e)	3s different subject
waker mehe...(a?e) wə	3p different subject

    Absolutive

uker mehe...(a?e)(wə)	3s.p same subject

    Nominative

Intransitive descriptive independent normal: -urywete 'happy'

herurywete...(ihe)	1s
nerurywete...(ne)	2s
zanerurywete...(zane)	1pi
urerurywete...(ure)	1pe
penurywete...(pe)	2p
hurywete...(a?e)	3s
hurywete...(a?e) wə	3p

    Absolutive

Intransitive descriptive independent oblique topicalization (rare);

hurywetan...(a?e)	3s
wanuryweten...(a?e) wə	3p

    Absolutive

Intransitive descriptive dependent

herurywete mehe...(ihe)	1s
nerurywete mehe...(ne)	2s
zanerurywete mehe...(zane)	1pi
urerurywete mehe...(ure)	1pe
penurywete mehe...(pe)	2p
hurywete mehe...(a?e)	3s different Subject
wanurywete mehe...(a?e) wə	3p different Subject

     Absolutive

urywete mehe...(a?e)(wə)	3s.p same Subject

     Nominative

    Sample sentences of the various types listed in section 16.
Transitive independent clauses:

Vt Aux L

u-pyupyk   Ø-heraha   pe-iwyr.
3-covered   3-taking road-beside

'He took her and covered her (with leaves) by the side of the road.'

Vt L

w-eraha   zəpehekwar rupi a?e no.
3-took   oven.mouth   into 3   again

'She took him into the oven.mouth again.'

Vt Aux

o-momor   təzəz   wa-mono   wə no.
3-threw   without.result 3p-sending pl again

'They threw them again unsuccessfully.'

Vt

o-mono wi   təzəz   a?e no.
3-put   again without.result 3   again

'She put them (there) again unsuccessfully.'

Vt 0

u-muwew   tata.
3-put.out   fire

'He put out the fire.'

Vt 0 Aux L

u-munehew o-po   zote i-mono   zəpehekwar-rupi no.
3-put   her.own-hand but   3-putting oven.mouth-into again

'She put her own hand into the oven mouth again.'

Vt 0 L

w-asaasaw   w-əpuz   i-kyhaw-ʔaromo kury.
3-poked.holes.in his.own-house 3-hammock-above now

'He poked holes in his roof above her hammock.'

Vt 0 Aux IO

u-muŋyrkar   əmən i-muwə   i-zupe aʔe kury,
3-caused.to.rain rain 3-bringing 3-to   3   now

'He now caused it to rain on her.'

Vt 0 IO

u-zapo maʔe   u-ze-upe   wə.
3-did   thing   3-reflexive-to pl

'They did things to each other.'

Vt S 0 Aux IO

u-munyk t-azyr   i-petym Ø-heraha i-zupe aʔe no.
3-light 3-daughter 3-cigar 3-take   3-to   3   also

'His daughter lit and took his cigar to him.'

```
O   Vt   IO
```

<u>əmən</u> <u>u-muŋyrkar</u>   <u>i-zupe.</u>
rain 3-cause.to.rain 3-on

'He made it rain on her.'

Vt Dependent clauses:

Vt <u>∅-hesak-pə</u>
   3-see-purpose

   'In order to see him '

Intransitive clauses:

Vi   L

<u>o-ho</u> <u>zawar-zemuəwə</u>   <u>wa-nape-rupi.</u>
3-go jaguar-made.into.wild.Indians 3p-path-along

'She went along the path of the jaguar Indians.'

S   Vi   L

<u>wa-paze</u>   <u>n-u-iko-kwaw</u> <u>aʔe-pe.</u>
3p-shaman neg-3-be-neg   that.place-at

'Their shaman was not there.'

T   Vi   L

<u>ikuʔegwepe</u> <u>o-ho</u>   <u>e</u>   <u>aʔe-wi</u>   <u>kury.</u>
next.day   3-go without.destination there-from now

'Next day she wandered on from there.'

Descriptive clause:

<u>te   i-əkym.</u>
so   3-wet

'So she got wet.'

Quotation clause:

"...", <u>i-?i</u>   <u>wa-zaryz</u>   <u>wa-nupe</u>
     3-say   3p-grandmother   3p-to

"...", 'Their grandmother said to them '

<u>i-?i</u>   <u>i-zupe</u>.
3-say 3-to

'He said to him.'

Footnotes

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[2] The semi-acculturated Guajajara, speaking at least five distinct dialects, live in the interior of the State of Maranhão, principally on the Zutiua, Mearim and Pindaré rivers. Phonemes are p,t,k,? (glottal stop),s,z,m,n,ŋ,r (flap), w,h,i,e (ɛ),a,o (ɔ),u,y (from i through ɨ to ï, depending on dialect), and ə (schwa). /s/ has the variant /č/ contiguous to /i/, and [ts] in some dialects. /z/ has the variant [y] in syllable-final position and [dž] in some dialects contiguous to /i/. The clusters kw and ŋw are single unit phonemes, written as two separate letters for convenience. In Bendor-Samuel (1972) c is used for /s/.
    Rodrigues (1958) classifies Guajajara (Gwažažara) as a dialect of Tenetehara, a language of the Tupi-Guarani gamily, of the Tupi Stock.

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