

# The Apalaí Phrase

Preliminary Analysis

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## 0. Introduction

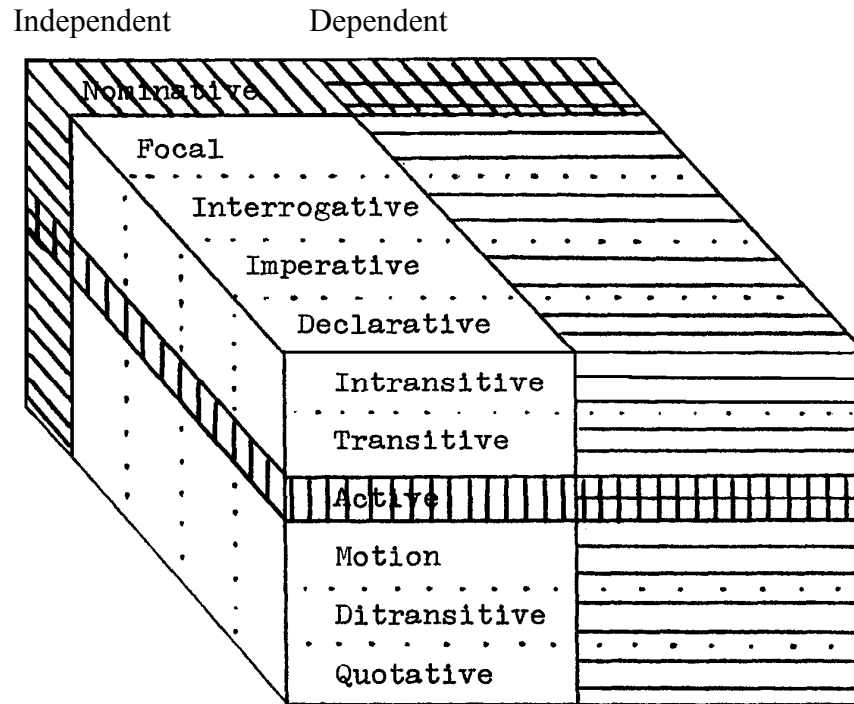
The Apalaí<sup>1</sup> phrase comprises a class of constructions which are more than a single word and potentially less than a clause. There are several main phrase types which differ according to their internal structure and their distribution within the clause. The scope of this paper is the description of Apalaí phrase structures and the function of the phrase within a clause.<sup>2</sup>

The basic clause types are the Intransitive, the Motion, the Transitive, the Ditransitive, the Active, and the Quotative.

Each of these clause types has a dependent counterpart which features a dependent predicate. The dependent predicate phrase embraces a head tagmeme which is manifested by a dependent verb, plus an optional Auxiliary tagmeme which is manifested by a stative verb or the intransitive verb *exi-*. With the six basic clause types as a linear set of categories or a single dimension of the Basic-Dependence matrix, the Dependence feature presents the second dimension with two classifications: Independent and Dependent.

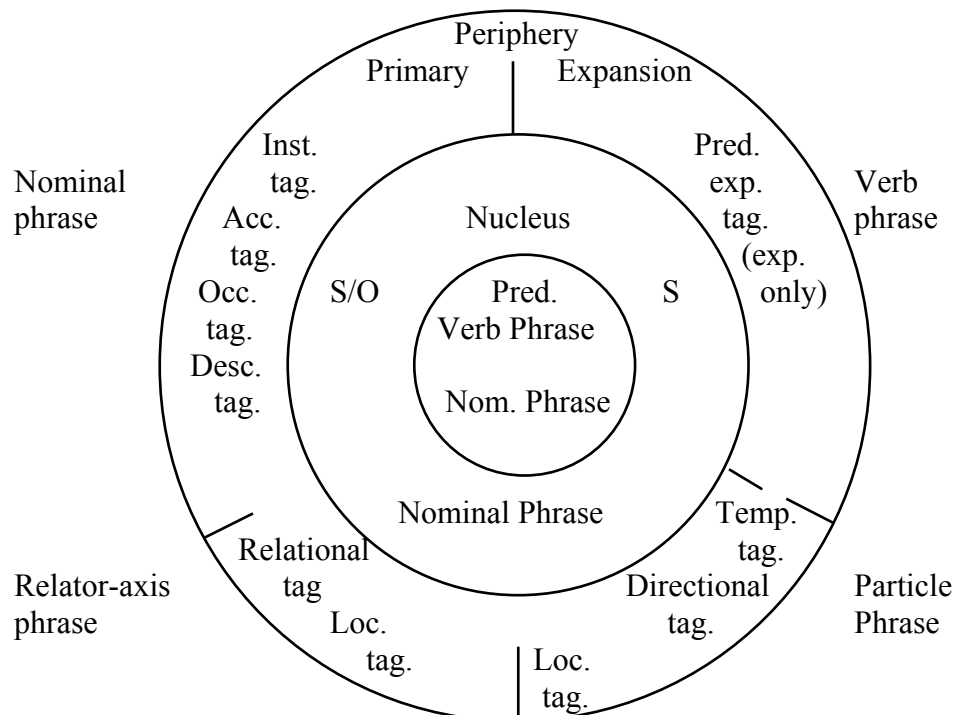
		Independent	Dependent
Basic non-referential	Intransitive	+S +P:Ind.Int.v.	+S +P:Dep.Int.v. ±Ax
	Transitive	+S +O +P:Ind.Tr	+S +O +P:Dep.Tr ±Ax
	Active	+S +P:X Ind.Act	+S +P:X Dep.Act ±Ax
	Motion	+S +P:Ind.Mot ±Rf	+S +P:Dep.Mot ±Ax ±Rf
Basic referential	Ditransitive	+S +O +P:Ind.Di ±Rf	+S +O +P:Dep.Di ±Ax ±Rf
	Quotative	+S +P:Ind.Qu ±Rf	+S +P:Dep.Qu +Ax ±Rf

Each of these clause types may be transformed into a series of related clause types by transformation processes.<sup>3</sup> The resultant configuration is most clearly demonstrated by the addition of a new dimension to the present two-dimensional matrix. This third dimension, the Transformational dimension, consists of five transformational categories: the Declarative, the Imperative, the Interrogative, the Nominative, and the Focal.



This graph pictures the distribution of the Predicate manifesting phrases within the Verbal<sup>4</sup> clause predicates. The Independent verb phrase is represented by shading, the Auxiliary by horizontal lines, the Ideophone phrase by vertical lines, and the Nominal phrase by oblique parallel lines.

The distribution of each of the phrase types within the general structure of the clause is shown by the circular graph. The predicate tagmeme is represented by the innermost circle.



The phrases, which manifest the predicate, are Verb phrases and Nominal phrases. The clause nucleus is represented by the medium concentric circle, which includes the Subject and Object tagmemes. The largest circle represents the peripheral<sup>5</sup> tagmemes, some of which may occur in both the primary periphery and the expansion. The Predicate expansion occurs only in the expansion periphery, and is manifested by the Auxiliary and Ideophone phrases. The Instrument tagmeme, the Accompaniment tagmeme, the Occupational tagmeme, and the Descriptive tagmeme occur in either the Primary or the Expansion periphery and are manifested by Nominal phrases. The Relational tagmeme and the Locational tagmeme occur in either the Primary or the Expansion periphery and are manifested by the Relator-axis phrase. The Locational tagmeme may be manifested by the Particle phrase also. The Directional and Temporal tagmemes occur in either the Primary or Expansion periphery of the clause and may be manifested by Particle phrases.

## 1. The Nominal phrases

The Nominal phrase is distinguished from other major phrase types by its Head tagmeme and its peripheral tagmemes. The Head tagmeme, H, is manifested by nouns or noun-like words, which make up a nominal word class, or by certain nominal phrases in restricted form.<sup>6</sup> The periphery of the Nominal phrase consists of a major peripheral tagmeme set, M, and an optional minor peripheral tagmeme, m. A general formula for the Nominal phrase type follows:

$$\text{Nom. ph.} = +H:N/\text{nom.ph.} \pm M:F \pm m:\text{ppph}$$

The optional minor peripheral tagmeme is manifested by one or a series of postpositional modal particles. The following tagmemes are included in the major peripheral set: possession tagmeme, P, modifier tagmeme, M, accompaniment tagmeme, Acc, descriptive tagmeme, D, attributive tagmeme, Att, instrument tagmeme, Inst, and occupational tagmeme, Occ. One Nominal phrase consists of only a head plus a minor peripheral tagmeme. The different nominal function tagmemes correlated with distinguishing features of the manifesting classes of the Head tagmeme divide Apalaí Nominal phrases into eight subtypes.

### 1.1. Possession phrase

The possession phrase is a subtype of the nominal phrase which expresses the possessor-possession relationship. The Possession phrase manifests the Subject or Object tagmemes in the clause nucleus or expansion, or the Head tagmeme of certain Nominal phrases, and of the Relator-axis phrase, as will be seen in later formulae.

$$\text{Poss.ph.} = +H:N^a/\text{nom.ph.}^1 +P:NP \pm m:\text{ppph}^2$$

The Possession phrase consists of a Head tagmeme manifested by Nominal-a word class, or possession phrase in restricted form plus a Possession tagmeme manifested by Nominal-p word class, plus an optional minor peripheral tagmeme manifested by a maximum<sup>7</sup> of two postpositional particles of class H. A Possession phrase manifesting the Head tagmeme of any Nominal phrase occurs in restricted form. The possible occurrence of a phrase manifesting the Head tagmeme of a phrase demonstrates the recursive property of certain Nominal phrases.

Nominal-a class of words includes possessed and non-possessed nouns, proper nouns, pronouns, demonstratives, and nominal question words. Class-p nouns include all possessed

nouns. Postpositional class H includes the set of postpositional modal particles which occur in Nominal phrases.(see Sec. 5)

Examples of possession phrases are:

ynapyry pu'turu	o'pery potyry ropa
our-food 's-seeds	what 's-tip again
H:ynapyry, poss.:pu'turu	H:o'pery, poss.:potyry, m:ropa
mosero napyry ropa	õ'ko topuru ro ropa roke nymya
that-one 's-food again	turkey 's-stone yet again just actually
H:mosero, poss.:napyry, m:ropa	H:õ'ko poss.:topuru, m:ro ropa roke nymya

## 1.2. Modifier phrase

The Modifier phrase consists of a nominal word and adjective combination which manifests Subject and Object tagmemes of the clause nucleus or expansion.

Mod. ph = +H:N<sup>b</sup>/Nom.ph.<sup>1</sup> +M':Adj./Ag ±m:ppp<sup>h</sup>

The Modifier phrase consists of a Head tagmeme manifested by Nominal-b class words or by a Nominal phrase type 1 in restricted form. The Nominal-b class of words includes possessed and non-possessed nouns and demonstratives. The Modifier tagmeme is manifested by adjectives or aggregate words. The Modifier phrase has a maximum optional occurrence of one postpositional modal particle. A variant order of the tagmemes of the Modifier phrase is seen when the modifier tagmeme precedes the Head tagmeme. Examples of the Modifier phrase are:

mapere mūkuru pitiko	māka tomo repe
fish 's-young little	mango aggregate never-the-less
H:mapere mūkuru, M':pitiko	H:māka, M':tomo, m:repe
opotu nymyry	imūkuru pitiko
rapids genuine	his-son little
H:opotu, M':nymyry	H:imūkuru, M':pitiko

## 1.3. Accompaniment phrase

The Accompaniment phrase consists of a nominal or Nominal phrase plus an Accompaniment tagmeme and an optional modal particle. It occurs in either the primary or expansion periphery of the clause.

Acc. ph. = +H:N<sup>C</sup>/ph<sup>1</sup>/ph<sup>2</sup> +Acc:ac ±m:ppp<sup>h</sup>

The Nominal-c class of words includes possessed and non-possessed nouns, proper nouns pronouns, demonstratives, nominal question words, and pseudo names. Ph<sup>1</sup> is the Possession

phrase, and  $ph^2$  is the Modifier phrase. The accompaniment tagmeme is manifested by a limited class consisting of one member, maro. Only one postpositional modal particle occurs optionally manifesting the minor peripheral tagmeme in the Accompaniment phrase. Examples of the Accompaniment phrase are:

tõxiry maro rokene	awi'wi maro
his-own-child with only	elder-brother also(with)
H:tõxiry, Acc:maro, m:rokene	H:awi'wi, Acc:maro
Jakiku to maro	Jaxpurata maro
name aggregate also	name also
H:Jakiku to, Acc:maro	H:Jaxpurata, Acc:maro

#### 1.4. Descriptive phrase

The Descriptive phrase is a combination of a nominal word or phrase plus a descriptive marker which manifests the descriptive tagmeme. The Descriptive phrase manifests the descriptive tagmeme of the clause in the primary or expansion periphery of the clause.

Desc. ph. = +H:N<sup>d</sup>/ph<sup>2</sup>/ph<sup>x</sup>/N.cl +D:d ±m:ppp<sup>h2</sup>

The Descriptive phrase head tagmeme is manifested by Nominal-d class words, a Modifier phrase ( $ph^2$ ), a Relator-axis phrase ( $ph^x$ ), or a nominalized clause. The Nominal-d word class includes possessed and non-possessed nouns and nominalized verbs. The Modifier phrase and the Relator-axis phrase occur in restricted form. The Descriptive tagmeme is manifested by a limited class of one member, me. A maximum of two postpositional particles occur optionally in the descriptive phrase. Examples of the Descriptive phrase are:

ipyty me ro-'xo	tyoro me ro ropa
his-wife- like still very	another like yet again
H:his-wife, D:me, m:ro-'xo	H:tyoro, D:me, m:ro ropa
zara pona me	zupu'pyry me pyra
floor on-to as	his-head like not
H:zara pona, D:me	H:zupu'pyry, D:me, m:pyra
kana anymyry me	ma tare pitiko me
fish to-lift as	fish little as
H:kana anymyry, D:me	H:matare pitiko, D:me

### 1.5. Attributive phrase

The Attributive phrase consists of certain Nominal words or phrases combined with an attributive clitic and an optional postpositional modal particle. The Attributive phrase manifests the Descriptive tagmeme of the clause primary or expansion periphery.

Att. ph. = +H:N<sup>e</sup>/ph<sup>2</sup> +Att.:at ±m:ppp<sup>h</sup>

The head tagmeme of the Attributive phrase is manifested by Nominal-e class words, or by a Modifier phrase, (ph<sup>2</sup>), in restricted form. Nominal-e class words include only non-possessed nouns or compound nouns.<sup>8</sup> The Attributive tagmeme is manifested by a limited class of one member, 'pe. A maximum of one postpositional modal particle occurs optionally in the Attributive phrase. Examples of the Attributive phrase are:

xiko 'pe	kaxiri-konōto 'pe
flea afflicted	mandioc juice with
H:xiko, Att:'pe	H:kaxiri-konōto, Att:'pe
oxi-oxi 'pe ra'kene	wewe 'pe
ringworm with really	wood cluttered with
H:oxi-oxi, Att:.'pe, m:ra'kene	H:wewe, Att:.'pe

### 1.6. Instrument phrase

The Instrument phrase consists of certain nominal words or phrases in combination with an instrument marker. The Instrument phrase manifests the Instrument tagmeme in the primary or expansion periphery of the clause.

Inst. ph. = +H:N<sup>f</sup>/ph<sup>1</sup>/ph<sup>2</sup> +Inst.:i ±m:ppp<sup>h</sup>

The Instrument phrase head tagmeme is manifested by Nominal-f class words, which include possessed and non-possessed nouns, compound nouns, and nominal question words; or by a possession phrase (ph<sup>1</sup>), or a modifier phrase (ph<sup>2</sup>). The Instrument tagmeme is manifested by a limited class of one member, ke. A maximum of two postpositional modal particles occur optionally in the Instrument phrase. Examples of the Instrument phrase are:

mutuxi ke	purou potyry ke
wood with	arrow point with
H:mutuxi, Inst.:ke	H:purou potyry, Inst.:ke
tyrato ke pyra-'xo	para'ta pi'po ke-'xo
his-own with not very knife	rubber-tree with very bark
H:tyrato, Inst.:ke, m:pyra-'xo	H:para'ta pi'po, Inst.:ke, m:'xo



kurupoimo pitiko ke  
 wild-fruit small with  
 H:kurupoimo, pitiko, Inst.:ke

### 1.7. Occupational phrase

The Occupational phrase consists of certain nominal words, Nominal phrases, or nominalized clauses in combination with an occupational marker and optional postpositional modal particles. The Occupational phrase manifests the Occupational tagmeme in the primary or expansion periphery of the clause.

Occ. ph. = +H:Ng/ph<sup>1</sup>/ph<sup>2</sup>/nom.cl +Occ.:oc ±m:ppph<sup>3</sup>

The Head tagmeme of the Occupational phrase is manifested by Nominal-g class words which include possessed and non-possessed nouns, proper nouns, pronouns, demonstratives, nominal question words, and nominalized verbs; or by a possession phrase (ph<sup>1</sup>), a modifier phrase (ph<sup>2</sup>), or a nominalized clause. The phrases which manifest the head tagmeme occur in the restricted form, and the nominalized clause is restricted to exclude clause level peripheral tagmemes. Examples of the Occupational phrase are:

mara poko	tykyry-sa toke'ka poko
pole handling	garden-plants and-all handling
H:mara, Occ.:poko	H:tykyry-sa toke'ka, Occ:poko
kuzari mukuru poko	se etary poko
bird 's-young occupied-with	this to-hear occupied-with
H:kuzari mukuru, Occ:poko	H:se etary, Occ:poko
oty poko-'xo	mosero poko
what occupied-with very	that-one occupied-with
H:oty, Occ:poko, m:'xo	H:mosero, Occ:poko
kurupoimo poko-'xo ro ropa	
wild-fruit handling very yet again	
H:kurupoimo, Occ:poko, m:'xo ro ropa	

### 1.8. Simple Nominal phrase

The Simple Nominal phrase consists of combinations of nominal words and postpositional modal particles. It manifests Subject and Object tagmemes in the clause nucleus and expansion. The Simple Nominal phrase differs from the other Nominal phrases in its exclusion of any major peripheral tagmeme, its head tagmeme manifesting class, and its potential number of postpositional modal particles.

Simple Nom.ph = +H:Na +m:ppp<sup>h3</sup>

The head of the Simple phrase is manifested by Nominal-a class words as they are described in 1.1. A maximum of three postpositional modal particles occur optionally manifesting the margin of the Simple Nominal phrase. Examples of the Simple nominal phrase are:

ywy ro ropa-'xo

I yet again very

H:ywy, m:ro ropa-'xo

onoky ro ropa-'xo

who yet again very

H:onoky, m:ro ropa-'xo

masaratupa rokene

rubber-variety only

H:masaratupa, m:rokene

wewe-'xo

wood very-much

H:wewe, m:'xo

kaoko roke-'xo

leaf-cutters only very-many

H:kaoko, m:roke-'xo

ono'pety ro ropa

what-do-you yet again call-him

H:ono'pety, m:ro ropa

## 2. The Verb phrases

The Apalaí verb phrase consists of a verb or verb complex with verb inflection and manifests the predicate tagmeme of a clause. Certain forms of the verb complex which are not complete may manifest either a predicate tagmeme or a predicate expansion in the expansion periphery of the clause. There are certain nominalized verbs which also manifest clause predicate tagmemes. These are described as derived nouns, which may manifest certain Nominal phrase head tagmemes or the predicate tagmemes of Nominative clauses.

### 2.1. Independent phrase

The Independent verb phrase consists of an inflected independent verb in combination with a modifier or one or more postpositional modal particles. The Independent verb phrase manifests the predicate tagmeme of the Independent Declarative, the Independent Imperative, the Independent Interrogative, the Independent Focal, and the Independent Nominative clause sets.

Ind.V.ph = +H:Indep.v ±M:m/ppp<sup>i2</sup>

The Independent verb phrase features a head tagmeme, which is manifested by independent verbs of the Declarative, the Imperative, and the Focal sets. These sets correlate with part of the Transformational dimension of the clause matrix. Two more categories of clause types belong to the Transformational parameter. The Interrogative clause predicate tagmeme is manifested by the same forms of verbs as the Declarative clause. The Nominative clause predicate tagmeme is manifested by nominalized verbs. The following verb orders occur in the Independent verb phrase: Transitive, Intransitive, and Active. These verb orders correlate with the parameter of orders in the basic clause matrix. The periphery of the Independent verb phrase

features a modifier tagmeme manifested by modifier words or by postpositional modal particles not exceeding two. Examples of the Independent verb phrase are:

noe'no ropa aporo	neku'no pa'ne
he came back briefly	he tried quickly
H:noe'no, m:ropa aporo	H:neku'no m:pa'ne
moe'no ropa	eneko pa'ne
did-you return	look quickly
H:moe'no, m:ropa	H:eneko, m:pa'ne

## 2.2. Auxiliary phrase

The Auxiliary phrase is a combination of certain verb forms plus an auxiliary tagmeme, which is manifested by the stative verb, a, or the intransitive verb, exi, plus an optional modifier tagmeme, which is manifested either by a modifying word or by a maximum of two postpositional modal particles. The Auxiliary phrase manifests the predicate tagmeme of the Dependent clause types of each of the Transform sets: Declarative, Imperative, Interrogative, Focal, and Nominative, in each of the clause orders: Transitive, Intransitive, Active, Motion, Ditransitive, and Quotative.

Aux. ph. = +H:dep.v. . . . . ±Aux:aux ±M:m/ppp<sup>j2</sup>

The Auxiliary phrase consists of a head tagmeme manifested by certain dependent forms of verbs, plus optional Auxiliary tagmeme, which may be non-contiguous. The dependent forms may be negative forms, aspect forms, or completive forms of the members of any of the verb orders except the Stative. A maximum of four optionally occurring postpositional particles occur in the Auxiliary phrase. The restrictions in distribution of the postpositional modal particles will be described in section 5. Examples of the Auxiliary phrase are:

oe'noko to'ma ro ropa	toytose monexiano
coming they-are yet again	gone they-were
H:oe'noko, Aux:ma, M:to'...ro ropa	H:toytose M:monexiano
toe'se mana	ako to'monexiano
come he-is	saying he-was
H:toe'se, Aux:mana	H:ako, Aux:monexiano, m:to'
a'kako pitiko <sup>9</sup>	eu'kako ma ra'kene
carving-it a-little	juicing-it you-are really
H:a'kako M:pitiko	H:eu'kako, Aux:ma, M:ra'kene

oe'zomo pyra sata ma ra'kene	xitako rokene
to come-again not likely he-is really	crying only
H:oe'zomo, Aux:ma M:pyra sata	H:xitako, M:rokene
ra'kene	

### 2.3. Ideophone phrase

The Ideophone phrase consists of a combination of an ideophone and an Active verb. An ideophone is an onomatopoeic expression of an action, which is uninflected and therefore dependent on the Active verb. It occurs manifesting a predicate, predicate expansion, or head of an Ideophone phrase. The Ideophone phrase manifests the predicate tagmeme of the Active clause. The ideophone often occurs without the Active verb on which it is dependent, manifesting the predicate<sup>10</sup> of a dependent clause, or predicate expansion.

Ideo. ph = +H:Ideo<sup>n</sup> ±Act:act ±M:ppp<sup>j</sup>

The Ideophone phrase consists of head tagmeme manifested by one or a series of ideophones, plus the optional Active tagmeme manifested by a limited class of one verb, a. The Modifier tagmeme is manifested by a maximum of two postpositional modal particles. Examples of the Ideophone phrase are:

koe' pyra to'na	koe' koe' kase-'xo
paddle not they	paddle paddle do much
H:koe' Act:na M:pyra to'	H:koe' koe' Act.:kase, K: 'xo
puro' āko ra'kene	ho ho ho ho nase toto
pole doing really	barking did-they
H:puro' Act:āko M:ra'kene	H:ho ho ho ho Act:nase M:toto

### 3. The Relator-axis phrase

The Relator-axis phrase consists of a combination of a nominal or a locational plus a relator, which may be either a clitic or a relator word. The Relator-axis phrase manifests positional and referential tagmemes in the clause primary or expansion periphery.

Rel-ax. ph = +H:Na/l +R-ax:r ±M:m/ppp<sup>h2</sup>

The Relator-axis phrase consists of a Head tagmeme manifested by Nominal-a word class as defined in 1.1. or locational words, plus a Relator-axis tagmeme manifested by a limited class of relators, pona, plus optional modifier tagmeme manifested by a modifier word or a maximum of two postpositional modal particles. Examples of a Relator-axis phrase are:

o'pety po  
 what-do-you-call-it at  
 H:o'pety, R-ax:po

kāpo pona rokene  
 air-strip to only  
 H:kāpo R-ax:pona H:rokene

imoino akoxi pitiko  
 from-there above a-little  
 H:imoino R-ax:akoxi M:pitiko

#### 4. The Particle phrase

The Particle phrase is a combination of certain uninflected words plus postpositional modal particles. The Particle phrase may manifest any one of several peripheral tagmemes of the clause depending on the specific word class manifesting the head tagmeme of the phrase.

Part. ph = +H:p<sup>1</sup>/p<sup>2</sup>/p<sup>3</sup>/p<sup>4</sup> ±M:ppph<sup>3</sup>

The Particle phrase consists of a head manifested by any one of four classes of particles: the Descriptive, the Locational, the Directional, and the Temporal, plus the optional minor peripheral tagmeme. The clause level Descriptive tagmeme is manifested by the Particle phrase which features a descriptive word. The clause level Locational tagmeme is manifested by a Particle phrase whose head tagmeme is manifested by a locational word. The clause level Directional tagmeme is manifested by a Particle phrase whose head tagmeme is manifested by a directional word. The clause level Temporal tagmeme is manifested by a Particle phrase whose head is manifested by a temporal word. Examples of the Particle phrase are:

zumo pyra  
 large not  
 H:zumo, M:pyra

kure ro-'xo repe  
 good still very but  
 H:kure, M:ro-'xo repe

ameke pyra  
 far-away not  
 H:ameke, M:pyra

moroto ro ropa  
 there yet again  
 H:moroto, M:ro ropa

seze 'ko toko  
 this-way quite likely  
 H:seze M:'ko toko

yrokokoro ra'kene  
 day-after-tomorrow really  
 H:yrokokoro, M:ra'kene

#### 5. The Postpositional particles

The postpositional particles comprise a class of words and clitics which manifest the optional modal tagmeme of the phrase. These modal particles occur most frequently as a single particle in a phrase, but a series of two or three modal particles is quite common and a maximum of four is possible. The postpositional modal particles occur in all of the phrase types with few

restrictions. The Aggregate modal, for instance, does not occur in the Nominal set of postpositional particles  $ppp^h$ . The Negative modal is excluded from the Independent verb set  $ppp^j$ .

The relative order of postpositional particles in clusters of two or more is definitely restricted. Except in the Auxiliary phrase the modal particles occur only following phrase nuclear tagmemes. In the Auxiliary phrase a number of the modal particles may occur preceding the auxiliary tagmeme, while a number of others may only occur phrase finally.

The postpositional correlation chart describes the order of occurrence of the modal particles when more than one occurs in a phrase. Six groups of particles are identified on the chart as groups A, B, C, D, Y, and Z. Groups A and Y occur before group B which occurs before group C which occurs before groups D and Z. Group A is further distinguished from A' which includes, in addition to A, the negative modal pyra. The modal sequence, which manifests the minor peripheral tagmeme of the Independent verb phrase may be expressed:

$$ppp^j = (\pm A'/Y \pm B \pm B^2 \pm C \pm D/Z)^2$$

The modal sequence which manifests the minor periphery of the non-verbal phrases excludes modal group C. The sequence may be expressed:

$$ppp^h = +(\pm A'/Y \pm A' \pm B^3 \pm D/Z)^4$$

The arrows on the chart indicate alternate ordering of some of the modal particles in group B. The particle roke may occur preceding the particle ro. The particle roko may occur preceding re'. And the particle 'xo may occur preceding ro or following certain particles of the toko column.

Postpositional Co-relation Chart

A	B		C	D
<div data-bbox="210 292 378 487">                     'ko (quite)  sa(mo) (like/as)                 </div> <hr/> <div data-bbox="210 487 378 714">                     A' pyra (negative)                 </div>	<div data-bbox="399 552 945 909"> </div> <div data-bbox="966 341 1323 1201"> <div data-bbox="1134 341 1302 1023"> <div data-bbox="1155 341 1281 406">toko (likely)</div> <div data-bbox="1155 454 1281 568">'ne (observation)</div> <div data-bbox="1155 633 1281 714">'se (existential)</div> <div data-bbox="1155 763 1281 876">'re (deduction)</div> <div data-bbox="1155 909 1281 1023">tano (here &amp; now)</div> </div> <div data-bbox="966 600 1134 1201"> <div data-bbox="987 600 1113 714">re' (detrimental)</div> <div data-bbox="966 1055 1134 1201">                     roku'no (surprise) roko (still quite)                 </div> </div> </div>		<div data-bbox="1344 649 1449 812">                     toto (3rd pers. pl.)                 </div>	<div data-bbox="1491 227 1764 1201">                     Terminator  repe (reservation)  ra'-kene ~tyky (certainly) (finish)  aporo (temporary)  Z  'ro (response)  mã (title/emphatic)   </div>

- \* D occurs as Clause or Sentence clincher.
- \* A maximum of 4 post positionals occur in a phrase.
- \* PPP = + (A/Y ±A ±B<sup>3</sup> ±C ±D 2/Z)<sup>4</sup>

## NOTES

1. Apalaí is a Carib language spoken by about 100 persons living along the Paru, the Maekuru, and the Jari rivers of Northern Pará, Brazil. The pride that this small group feels in its language and its culture has not been quenched either by the encroachment of civilization in the form of seasonal rubber gatherers, nor by the interpenetration of the neighboring Wayana Indians.

Data for this study were gathered during fieldwork conducted in the years 1962 through 1965 under the auspices of the Museu Nacional of Rio de Janeiro, Brazil, in accordance with its contract with the Summer Institute of Linguistics. The tribal work was facilitated by the assistance of the Serviço de Proteção aos Índios.

The phonemes of Apalaí include 12 consonants, of which four are voiceless stops: p, t, k, and ' (glottal stop); two are nasals: m, and n; three are grooved fricatives: s, z, and x (voiceless, alveo-palatal); one is a flap: r; and two are semi-vowels: y, and w; and 12 vowels of which six are oral and six are nasal. The oral vowels include a, e, i, o, u, and i; and the nasal vowels include: ã, ê, î, õ, û, and ã. One other phone h occurs only in ideophones and as a marker of intensity in certain time words; i.e., pake becomes pahke (long ago).

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2. This analysis is based on Apalaí texts totaling approximately 28,000 morphemes. The work was facilitated by a concordance produced through the IBM 1410 computer at the University of Oklahoma by the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma Research Institute, and sponsored by Grant GS-934 of the National Science Foundation.

3. The transformations by which the Imperative, Interrogative, Nominative, and Focal clauses are derived from the Declarative clause may be described as follows:

- a) Declarative rewrites as Imperative when:
  - 1. Subject is replaced by Vocative.
  - 2. Declarative predicate is replaced by Imperative predicate.
  - 3. Declarative periphery is replaced by Imperative periphery.
- b) Declarative rewrites as Interrogative when:
  - 1. Declarative subject is replaced by Interrogative subject  
(When other interrogative marker is absent the subject is restricted to second person only.)
  - 2. Any one of the Declarative non-verbal tagmemes is replaced by its Interrogative equivalent.
  - 3. Declarative order is replaced by Interrogative order in which the Interrogative word occurs clause initial.



- c) Declarative rewrites as Nominative when:
  1. Declarative predicate is replaced by Nominative predicate.
  2. Declarative subject or object is replaced by a possessor.
  3. Declarative periphery is replaced by Nominative periphery.
- d) Declarative rewrites as Focal when:
  1. Declarative predicate is replaced by Focal predicate.
  2. Obligatory subject and obligatory object are replaced by an optional object and an optional agent.
  3. Declarative periphery is replaced by Focal periphery.

4. The non-verbal clause types, which include the Equative and the Descriptive, have not been described in the three dimensional matrix.

5. The clause periphery consists of a primary periphery, which embraces those tagmemes, which occur preceding the clause nucleus, and the expansion periphery, which embraces those tagmemes, which occur following the nucleus. The nucleus includes free and bound subject and object and the verb or phrase which manifests the predicate tagmeme. The primary periphery normally contains only one or two tagmemes, whereas the expansion periphery commonly contains three or more and may contain up to ten or more, as in the enumeration of a list of objects or subjects.

6. The restricted form of phrases, which occur manifesting the head tagmeme of a Nominal phrase, consists of only a head tagmeme and a major peripheral tagmeme. Any phrase, which manifests a head tagmeme, excludes minor peripheral tagmemes and is said to be in restricted form.

7. Maximum occurrence as used in this paper to describe occurrences of grammatical items is not intended to mean the absolute maximum possible, but rather the maximum number observed in the computerized data.

8. The compound noun consists of two nouns which are closely connected in that together they specify something more than the sum of the meanings of the two words, or in that they both specify the same entity in a general-specific relationship or a whole-to-its-part relationship: i.e. para'ta pi'pyry 'rubber tree bark', Ajana noty 'Wayana grandmother.'

9. The Auxiliary phrase frequently occurs with out the auxiliary verb. This form manifests the predicate expansion or the predicate tagmeme of a clause, which is dependent on its context for orientation as to subject and tense.

10. Some examples of the ideophone manifesting the predicate tagmeme exclusive of the Active verb follow:

1. mame soi soi soi, type nakuaka.  
the act of grabbing, (he) act of falling into-the-water
2. syryry sysysy, kyry' zupu'pory pokoino  
the act of slithering (lizard) caught its head by