REFERENTIAL DEVICES IN APURINÃ DISCOURSE

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TABLE OF CONTENTS

1 INTRODUCTION.

This study of referential devices in Apurinã discourse is generally modelled on similar topic-continuity studies found in Givón (1983). Earlier work on Apurinã has been done by Pickering (1973), and Mallinson and Blake (1981), particularly in regard to OSV as basic word order, which this present study shows to be problematic.

I have taken into consideration six of the types of assumed familiarity of participant referents given by Ellen Prince (1981). Of these six categories, the first three are considered by Prince to be categories of new information, whose assumed familiarity is low.

Brand New. (BN) The participant introduced is completely new.

Brand New Anchored. (BNa) This is a new participant that is linked to some other participant in the discourse which is not new, e.g., 'his head' where the participant referred to by the possessive is not new.

Unused. (U) The participant is new but the hearer is assumed to be familiar with the class of participants referred to, e.g., 'people' and 'jungle-goers'.

Inferrable. (I) The narrator assumes that the hearer can infer the existence of this particular participant. Thus in example (44) 'The worker makes a shelter', 'shelter' is inferrable, as all workers (i.e., in the jungle) must make shelters to spend the night.

Textually Evoked. (E) This is not a new participant but has already been introduced in the discourse.

Situationally Evoked. (Es) This participant is understood from the situation of the discourse, e.g. first and second person references.

This study is based on 5 Apurinã texts, (four legends and one third person narrative of factual occurrence), a total of 533 clauses. One of the legends is found in the Appendix. Examples which are taken from this text have the reference "T" followed by the number(s) of the

clause(s). The direct speech clauses (86 clauses) were not considered other than in referential distance and with respect to zero anaphora in their quotation margins.

The grammatical devices used in references in Apurinã are: zero anaphora, verb agreement, independent pronouns and noun phrases. These are described in Section 2. The referential devices with regard to their positions as subject, object or other case (possessive, second object or location) are described in Sections 3, 4 and 5, respectively. Pre-verbal and post-verbal positions are especially investigated. Section 6 gives the numerical results of measurements of referential distance (lookback), persistence (decay) and assumed familiarity. Section 7 summarizes the results of this study in regard to basic word order, participant introduction and maintenance, disambiguation and thematic units.

2 REFERENTIAL DEVICES.

This section describes the referential devices used in Apurinã discourse in the order - zero anaphora, verb agreement, independent pronouns and noun phrases.

2.1 Zero Anaphora.

2.1.1 Subject Referance.

60 clauses (13%) out of the 447 clauses studied used zero anaphora to refer to the subject. There are four specific areas where zero anaphora is used. These are the following (with the percentage of the total subject zero anaphora clauses):

Quotation Margins

27 (45%) of the 60 clauses used zero anaphora in quotation margins. (Independent pronouns and noun phrases are also used in quotation margins. Grammatical agreement is never used because no verb occurs.)

(1) (Preceding context: He told the story to his relatives,
"The tokĩtxi has killed my companion".)
Namonipa?
LOC-DIR-INTER
'"Where?" (relatives asked).'
Iuaxiti.
that-place
'"There," (he replied).' (T.56,57)

Ideophones (15%), 9 clauses

The subject/agent of an ideophone may be referred to with zero anaphora. (It also may be referred to with a pronoun or noun phrase, but never with agreement because an ideophone cannot have affixation.)

(2) Xamina oiopotokaka. Uixxx!
firewood 3F-light sound of burning up
'She lit the firewood. Wishhh! went the firewood.'

Verb repeats (12%), 7 clauses

Zero anaphora may be used when a verb is repeated, but it is not obligatory.

(3) Iuasaakipe oa ameroka, ameroka, ameroka.
that-when-BEG she lick lick lick
'Then she licked and licked and licked.'

The studied clauses had two examples where the verb was repeated with agreement.

(4) Inaka atoko aãxike o-ãpotooita, o-ãpotooita.
be-COMPL after UNPOSS-foliage 3F-gather 3F-gather
'After that she gathered and gathered foliage.'

Summary verb txa (8%), 5 clauses

Zero anaphora is used with the summary verb txa found at the end of episodes (King, 1984). Here the zero anaphora does not operate on the sentence level but on the episode level and the reference is to the basic content of the preceding episode and not to any particular participant. In example (5) the txa has subject zero anaphora for its reference. The reference is to someone arriving at the storyteller's house the night before and stealing his brother's machete.

(5) Txapeka minipani.
ASSR-COMPL last night
'That's what happened last night.'

Others (20%), 12 clauses

The remaining clauses used subject zero anaphora in other places. It seems that the only explanation as to why zero anaphora occurs is that the absence of agreement puts more prominence on the verb. It seems that where the storyteller wants to emphasize an action and there is no ambiguity as to the subject, zero anaphora is used. In example (6) the discourse topic (a type of animal person) has in the previous clause been introduced with a noun phrase. Then follows this sentence where zero anaphora is used to refer to the animal person. The use of the zero referent puts enphasis on the verb 'fast', as this is the main characteristic of this type of animal person and the following 11 clauses describe how he fasts.

(6) Xãta ãti ĩtopati.
fast another-M jungle-MOD
'He fasts in another jungle.'

There is very little possibility of ambiguity with this referential device.

In all but four of its occurrences the participant referred to is in the previous clause. One of these four clauses comes after an explanatory digression. The repetition of the same verb after the digression makes it clear who the subject is, even though subject zero anaphora is used. The other three examples are introductions to direct speech, where the participant cast is clear and the speech content makes the identities of the speakers clear even though another participant is the subject immediately preceding.

2.1.2 Object Reference.

12 (9%) of the 133 transitive clauses studied had zero anaphora for the object reference. Four of the examples occurred in declarative clauses giving the result of a direct speech imperative. In each of the clauses the preceding sentence or clause specifically identified the zero anaphora object. In the second clause of example (7), subject, object and even indirect object are referred to with zero anaphora.

(7) (Preceding context: "Bring me the child!')

(7) (Preceding context: "Bring me the child!')
Ininiã sa, sika.
so go give
'So she went and gave him to her.'

In example (8) the object (a machete that was stolen) is referred to with zero anaphora.

(8) Ninoapokoma nitapikitika.
they-all-ADVERS look-EMPH
'They all really looked for it but in vain.'

2.2 Grammatical Agreement.

2.2.1 Subject and Possessive Agreement

Prefixes may occur as subject references on all verbs apart from stative predicates; and as possessive references on certain classes of nouns. There is agreement between person and number for 1st and 2nd person. For 3rd person singular, gender must also agree. The prefixes are the following:

	Sing.	Plural
1	n-/ni-	a-/ã-
2	p-/pi-	h-/hĩ-
3m	#-/i-	#-/i-
3f	o-/õ-	

The 3rd person masculine singular #-/i- is also used for the plural if the plural subject is considered as a single group. If the subject is considered distributively, then the suffix -na 'distributive' is used. In example (9) the first reference to the subject is distributive with the use of i- '3m' and -na 'distributive'. The second reference to the subject is a group reference with only the use of i- '3m'; they collectively removed the woman from the sunken bus.

(9) Ikomokana ipatapiã.
3M-dive-DISTRIB 3M-under-water
'They each dived under it (the bus) in the water.'

Imakatxakaro ãto sito.
3M-remove-3F another-F woman
'They removed another woman.'

When the subject occurs as a free form, the subject agreement normally does not occur apart from two exceptions. See examples in section 3. When one of the two auxiliary verbs txa and ina are used then the auxiliary carries the inflexion.

(10) Apoka otxari.
find 3F-ASSR-3M
'She found him.'

2.2.2 Subject, Direct and Indirect Object Agreement.

The same set of suffixes is used for subject agreement for stative predicates, and for direct and indirect object for verbs.

	Sing.	Pl.
1	-no	-ua (also used for reflexive)
2	-i	-i
3m	-ri	-# group -na distributive
3f	-ro	

Stative Predicates

When a free subject occurs before a stative predicate, there is no subject agreement. (The free subject before the verb also gives the eventive and not stative meaning) When a free subject occurs after the stative predicate then there must also be agreement.

(11) Erekaro.
good-3F
'She's good.'

(12) Erekaro oa.
good-3F she
'She's good.'

(13) Oa ereka.
she good
'She was good.'

There is no distinction in plural in 2nd person. The second person plural free pronoun hĩte must be used if clarity is required.

(14) Noerekaiko.
1SG-show-2SG-INT
'I will show you.' (May be singular or plural)

(15) Noerekaiko hĩte.
1SG-show-2SG-INT you (PL)
'I will show you.'(Pl.)

The 1st person plural -ua is also used as a reflexive marker. The semantic context or the use of a free pronoun as well, shows which meaning is required.

(16) õkitika-ua.
3M-lift-REFL/1PL
'He gets up'. or 'He lifts up.'

When the object occurs before the verb (apart from left dislocation of the object), then there is no object agreement on the verb.

Object after the verb

(17) Oãpokari iua.
3F-find-3M he
'She found him.'

Object before the verb

(18) Iua oãpoka.
he 3F-find
'She found him.'

Left dislocated object

(19) Iua, oãpokari iua.
he 3F-find-3M he
'It was he whom she found.'

Grammatical agreement is the most common device for referring to subject and object in Apurinã narrativo. 49% of subjects and 48% of objects use this device.

2.3 Independent Pronouns.

The same set of free pronouns in Apurinã occur as subject, object, indirect object and possessivo referents. These free pronouns are:-

	Sing.	Pl.
1	nota	ate
2	pite	hĩte
3m	iua	ninoa
3f	oa	

(20) Iua etamataro oa.
he see-3F she
'He saw her.'

There is no distinction for gender in third person plural. The free first person plural ate is the 'exclusive we'. The bound pronoun a-/ã- or -ua gives the 'inclusive we'. To use the free pronoun inclusively, the word 'all' must be added - ate amakinika 'we all'. Independent pronouns can accept suffixes.

(21) Oapitikamara ĩkiĩkaãpotama.
she-AFFIRM-ADVERS-EMPH go ahead-PROL-ADVERS
'As for her, she unfortunately was continuing to go ahead.'

Independent pronouns as sole subject referents occurred in 112 clauses (26%) of the 447 clauses. As sole object referent, independent pronouns occurred in only 9 clauses (8%) of the 133 transitive clauses. Pronouns as used before and after the verb, and in combination with other referential devices are explained below in sections 3 and 4.

2.4 Noun Phrase.

Noun phrases in Apurinã consist of a single noun (22) optionally preceded by a demonstrative pronoun or possessive (23) and optionally followed by a nominalised verb. (24)

(22) Ximaki omaĩka.
fish 3F-catch
'She caught fish.'

(23) Kõpa tsopa iua saoka.
wild banana leaf he chop
'He chopped wild banana leaves.'

(24) Oa imi otakanapakito iua iorota.
she child 3F-leave-NOM-PAT-3F he stab
'He stabbed her child that she left behind.'

Noun phrases as sole subject referents occurred in 41 clauses (9%) of the 447 clauses studied. Object referent noun phrases however were much more numerous, occurring in 46 clauses (35%) of the 133 transitive clauses. The main function of a noun phrase is to introduce new participants and clarify participants already introduced when there is any possibility of ambiguity. Noun phrases are also used in combination with pronouns and agreement as is explained in sections 3 and 4 below.

3 FREE SUBJECT MARKING DEVICES.

Zero anaphora and agreement have been discussed separately above. Here I want to discuss the free subject forms as to how they function in a discourse in relation to their pre-verbal or post-verbal positions. Also I want to show how combinations of the various subject referential devices function in a discourse.

3.1 Before the verb.

This section describes pronouns and noun phrases as used before the verb.

3.1.1 Pronoun (S-PRO V).

111 clauses (25%) of the 447 clauses studied had this format. In 79 (70%) of the 111 clauses a free pronoun before the verb occurs with a change of subject. (Table I) In example (25) the subject changes from 'he' to 'she'.

(25) Imakasaaki ĩkanõka, oa asĩkaãta
3M-sleep-when night she suck-liquid
'When he sleeps at night, she sucks his blood.'

Four of these clauses actually introduced participants for the first time by means of the free subject pronoun. Here the participant familiarity category is "brand new anchored". These participants are 'one of them', 'one of the others', the 'others' and 'all of them'.

However in the remaining 32 clauses (30%), the subject was the same as in the previous clause. Here in 16 of the clauses the free pronoun subject occurred at the beginning of a paragraph.

(26) Ininiã iuaxiti iua sa.
So that-place he go
'So he went to that place.'

Of the remaining 16 clauses the free pronoun did not occur where there was a change of subject, nor did it occur at the beginning of a paragraph. One occurred as a free pronoun rather than bound because it was suffixed for emphasis. (See example (21) above.) Five clauses occurred in narrative clauses after direct speech. So it seems that S-PRO V tends to occur where the referent, if not actually anaphoric, is at least in some way linked with the preceding text, and yet there is some sort of a discontinuity - change of subject, paragraph boundary, or change of performative levels.

3.1.2 Noun Phrase (S-NP V).

36 (8%) of the 447 clauses had this format. This format is used for specifying a particular participant. There were four main motivations for this:

New participant introduced

Nine of these 36 clauses introduce a new participant. In example (25) imi 'child' is a new participant.

(27) Oãpokare imi auapani.
3F-arrive-POSS child be-CONT
'On her arrival her child was still alive.'

Re-introduction of a participant, with potential ambiguity

Sixteen of these 36 clauses re-introduce a participant where the pronoun alone would be ambiguous because of other participants in the discourse context. In example (28) the child is re-introduced to explain when the mother went to her relatives.

(28) Imi ipĩkasaakika, osa iuaxiti.
child die-when-COMPL 3F-go that-place
'When the child died, she went to that place.'

Potential ambiguity without re-introduction

The remaining clauses used the noun phrase as a means of clarification where there could be ambiguity with other participants. In example (29) without the clarification, there could be ambiguity as to who ran, as two masculine pronouns are used in the previous utterance.

(29) (Proceeding context: 'So then he came towards him.')
Inakasaakipe popĩkari miteka txa.
be-when-BEG Apurinã run ASSR
'When that happened the Apurinã started to run.' (T 70)

Thus S-NP V is used where a high degree of referential specificity is required, whether or not prominence is called for; but as it happens most uses of S-NP V have to do with introduction or re-introduction of a participant.

3.1.3 Pronoun plus Agreement S-PRO V-AGR.

Eight (2%) of the 447 clauses had the format S-PRO V-AGR. There may be more because the masculine third person subject prefix is a zero morpheme before a vowel initial verb, and none of these clauses were counted. Zero anaphora for subject could be confused with this zero morpheme. In each case this format was used to indicate the return of one of the main participants as subject after an absence in the discourse, where the pronoun alone is sufficient for identification. In example (30) 'she' returns to being the subject of the clause after an absence.

(30) Ininiã oa omasakaãponãta.
so she 3F-hand fish-PROL-STAT
'So she was continuing to hand fish.'

This construction is similar to left dislocation in that the free subject is emphasized by its double reference. Here the emphasis shows that this participant is a different subject from the previous clause. This is important in disambiguation when the previous subject is of the same gender.

3.1.4 Pronoun plus Noun Phrase (S-PRO+NP V).

There were only two examples of this format in the clauses studied. This seems to be used for emphasis of the particular participant. This is again similar to left dislocation. In example (31) this format emphasizes that it was the Apurinã who the animal woman had toasted, who had killed her child.

(31) Iuasaaki iuakamara, popĩkari
that-when he-ADVERS-EMPH Apurinã
'At that time it was he, it was the unfortunate Apurinã

ooronãtakitikamara
3F-toast-STAT-NOM-PAT-3M-ADVERS-EMPH
whom she had toasted,

iuasaaki okanapamaro imi.
that-when kill-escape-ADVERS-3F child
who at that time killed her child when he escaped.'

3.2 After the verb.

The subject occurring after the verb is not common. Out of 447 clauses only 15 (3%) had this format. The principal use of a post-verbal free subject seems to be as a summary statement regarding a main participant.

3.2.1 Pronoun (V S-PRO).

There was only one clause of the type V S-PRO with no subject agreement on the verb. This clause occurs as a summary at the end of a paragraph which explains that a particular animal woman can't be killed.

(32) Apiamonõkonita oa.
more-dangerous she
'She's more dangerous.'

3.2.2 Noun Phrase (V S-NP).

There were five clauses of this format. Here again these are summary statements regarding main participants. In example (33) this statement about the animal person's habitat occurs at the beginning of a paragraph that tells about what he does to those who enter his domain.

(33) Aua ĩtopa tokĩtxi.
live jungle animal person
'The tokĩtxi lives in the jungle.' (T.3)

3.2.3 Pronoun plus Agreement (V-AGR S-PRO).

There were only two clauses of this type. A stative predicate is used to give the narrator's personal opinion of the participant. In example (34), after telling how the animal woman kills people by sucking out their blood, the narrator gives his opinion of her.

(34) Kona erekaro oa.
NEG good-3F she
'She's not good.'

3.2.4 Noun Phrase plus Agreement (V-AGR S-NP).

Six of the 447 clauses were of this type, all with the summary verb txa. The txa clauses are summary statements of the discourse topic. (King 1984)

(35) Itxa ãti tokĩtxi ĩtopa auakari.
3M-ASSR one-M animal person jungle live-NOM-AG-3M
'Thats him, one kind of tokĩtxi, who lives in the jungle.' (T.77)

3.2.5 Left Dislocation.

There was only one example of a left dislocated subject pronoun, with agreement and a noun phrase after the verb. The verb is a stative predicate. The left dislocation gives emphasis to the participant. This clause gives a summary of the emphasized subject.

(36) Ininiã oa, kona kokikoro txionaki.
so she NEG STAT-kill-NOM-PAT-3F animal person
'So she, the animal person, is one who cannot be killed.'

4 FREE OBJECT MARKING DEVICES.

Out of 447 clauses studied, 133 (30%) were transitive with either free, bound or zero objects. Of these, 57 clauses had free objects. The bound and zero objects have already been discussed above. Here we will discuss the free objects. As with the subject references the

position before or after the verb is very important. 67% of free objects occurred before the verb (38 clauses) while only 33% (19 clauses) occurred after the verb. Only free objects that occurred before the verb introduced new participants. The big majority of free objects were noun phrases. Free pronouns were only used 4 times before the verb and 5 times after the verb.

4.1 Before Verb.

Thirty-eight of the 57 clauses with free object had the object before the verb, only four of these being free pronouns. Twenty-two (58%) of these 38 clauses introduced new participants, including the introduction of two main participants. In example (37) a new main participant is introduced, 'someone who goes to the jungle'.

(37) Ĩtopa sikari otaõkita.
jungle go-NOM-AG-3M 3F-meet
'She meets someone who goes to the jungle.'

The remaining 42% (16 clauses) gave textually evoked information for the purpose of clarification and explanation. In example (38) further clarification is given about a participant previously introduced as 'someone sleeping'.

(38) Ãti amarini oãsĩkaãta.
one-M child 3F-suck-liquid
'It was one child that she sucked blood from.'

In each of the four pronoun examples the pronoun was the same: ãti/ãto 'another'. Each introduced a new participant of the familiarity category "brand new anchored".

(39) Ininiã ãto opimaã.
so another-F 3F-ask
'So she asked another person.'

Only 4 of the 38 clauses with object before the verb had also a free subject which was a free pronoun in each case. These were all OSV word order.

(40) Kotximaro oa nika.
shrimp she eat
'She ate shrimps.'

There was one example of a left dislocated object pronoun. This example (41) introduced a new main participant into the discourse, one who is obviously well known to the Apurinã listener. She is not even mentioned by name in the whole story, although as an afterthought after the story was told, the narrator gave her name as he realised that his audience at that time was not Apurinã. The left dislocation gives special emphasis to the participant.

(41) Inakasaakipeka oa, ikenakotaro oa.
be-when-COMPL she 3M-hear-3F she
'At that point it was she whom he heard.'

4.2 Object After Verb.

Nineteen of the 57 clauses with free objects had the object after the verb. Five of these had the object as a pronoun. No new participants are introduced in this way. All the participants are of the textually evoked familiarity category apart from one from the inferrable category (example (44)). Five of these clauses also had a free subject.

(42) N'apokaikaro saasara.
NEG-3M-find-CONTR-3F machete
'He couldn't find the machete then.'

(43) Iua etamataro oa.
he see-3F she
'He saw her.'

In example (44) 'shelter' is inferrable from 'worker'. All workers in the jungle have to build a shelter. This is the one example of an inferrable type entity where the object occurs after the verb. All the other objects found in this position are textually evoked.

(44) Parĩkauatakari kamari papiri.
work-NOM-AG-3M make-3M shelter
'The worker builds a shelter.'

Riqht Dislocation

There was only one clause that had a right dislocated object recognizable by the lack of an object suffix on the verb. The right dislocation puts the participant out of the prominent position at the beginning of the clause and allows the subject to be emphasized.

(45) Tsiikiri sẽka, xamina.
urine extinguish fire
'The urine extinguished the fire.'

5 OTHER CASE MARKING DEVICES.

For other cases I have included all other places where a participant referent is found: in possessives, locatives and second objects of ditransitive clauses. Out of the 447 clauses studied only 41 had these other cases.

By second object in Apurinã, I mean the object which is further semantically to the ditransitive verb. In Apurinã the recipient of the giving is closer to the verb than what is given. The question Kipa pisika? (who/what 2SG-give) always means 'To whom did you give?' The answer is always the recipient. If you want to know what was given then you just specify the recipient in the question. Other similar ditransitive verbs are oereka 'teach to', iokanata 'send to' and sãpireta 'tell to' (example (52)).

Zero anaphora occurred in 6 of these 41 clauses. In example (46) the second object 'it' (as explained above) is not specifically stated.

(46) Sika otxaro imi.
give to 3F-ASSR-3F child
'She gave it to her child.'

These devices occur in free form both in pre-verbal (19) and post-verbal (16) positions.

5.1 Before the verb.

Six clauses gave a pronoun for location.

(47) Iua manapi ina otxa.
he towards come 3F-ASSR
'He came towards him.' (T.8)

Nine clauses gave a noun phrase in this other category.

(48) Txionaki auiniãtaã kona pisa.
animal person be-DEP-LOC NEG 2SG-go
'You don't go to the txionaki's home.' (T.75)

There was only one clause with a left-dislocated locative.

(49) Iua, omatsiriãtakiti iua nopini apoka.
he 3F-spray-NOM-PAT-3M he on arrive
'What she sprayed landed on him.'

5.2 After the verb.

4 clauses had pronouns in this category.

(50) Ãti ipinimoni sa iua takota.
one-M side-DIR go he near
'One went off to the side near to him.' (T.11)

Example (51) gives a noun phrase in a dependent clause.

(Preceding context: 'Then he heard her,')

(51) osãkirausãpotini imikata.
3F-talk-PROL-DEP child-with
talking with her children.

Example (52) gives one of the 4 right-dislocated second objects. These were all discourse-initial and introduced the main discourse topic. The first object is 'you' and the second object is 'about another one, the tokĩtxi'. (See explanation of first and second objects above).

(52) Ãti pirena nisãpiretai, tokĩtxi.
another-M talk about 1SG-tell to-2SG animal person
I'll tell you about another one, about the tokĩtxi. (T.2)

6 NUMERICAL RESULTS OF MEASUREMENTS.

6.1. Referential Distance.

"Referential distence" or "lookback" is the measurement in clauses of the gap between the previous occurrence in the discourse of a referent and its current occurrence (Givón 1983). To measure this, I counted the number of clauses "to the left" between the present appearance of

a referent and its previous appearance in the discourse, regardless or what device marked that previous appearance. Non-appearance inside direct-quoted portions of the narrative was not counted as a gap, while appearance inside such direct-quoted portions was counted as an instance of occurrence.

6.1.1 Subjects.

For subjects Table I shows that the shortest average referential distance for referential devices with more than two occurrences was for NP + AGR. This referential device does not function on the clause level, but on the episode level and the reference is always to the episode topic. (section 3.2.4). The most continuous referential device on the clause level was zero anaphora, and the most discontinuous was the NP after the verb. The following scale gives, in order, the seven most common subject reference devices from most continuous to most discontinuous.

Highest Continuity — Lowest Continuity

Ø AGR PRO V PRO V-AGR NP V V NP

The PRO V-AGR is used to reintroduce a participant after a gap and thus is not a continuous referential device. This and the noun phrases are the most discontinuous.

TABLE I:
AVERAGE REFERENTIAL DISTANCE FOR
SUBJECTS IN APURINÃ NARRATIVE

	Ref. Device	No. of clauses	Av. ref. distance in. no. of clauses
	Ø	60	1.18
	AGR	214	1.43
	PRO	111	2.68
subject	NP	36	9.42
before	PRO + AGR	9	5.89
verb	PRO + NP	(2)	(16.00)
	PRO	(1)	(1.00)
subject	NP	5	12.40
after	PRO + AGR	(2)	(1.00)
verb	NP + AGR (Epis)	6	1.17
	PRO + NP + AGR	(1)	(1.00)

TABLE II:

PERCENT DISTRIBUTION OF REFERENTIAL DISTANCE WITHIN SUBJECT CATEGORIES IN APURINÃ NARRATIVE
(Summary of 5 Texts Totalling 447 Clauses)

No. of Clause	Subject Before Verb												Subject After Verb									
	Ø		AGR		PRO		NP		PRO+AGR		PRO+NP		PRO		NP		PRO+AGR		NP+AGR		PR+NP AGR	
0	5	.063																				
1	51	.85	178	.832	65	.586	13	.361	1	.111			1	1.00	2	.40	2	1.00	5	.833	1	1.00
2			19	.089	21	.189	1	.028											1	.167		
3	1	.017	4	.019	7	.063			3	.333												
4	3	.05	2	.009	5	.045	2	.056	1	.111												
5			2	.009	3	.027	1	.028	1	.111												
6					2	.018																
7					2	.018	2	.056														
8							2	.056														
9									1	.111												
10																						
11							1	.028	1	.111												
12											1	.5										
13																						
14					2	.018			1	.111												
15							2	.056														
16																						
17																						
18																						
19																						
20			3	.014			3	.083														
*N			6	.028	4	.036	9	.25			1	.5			3	.60						
447	60	1.00	214	1.00	111	1.00	36	1.00	9	1.00	2	1.00	1	1.00	5	1.00	2	1.00	6	1.00	1	1.00

* N refers to non-anaphoric entities.

In TABLE II, the 5 examples of 0 number of clauses (top line) are not references on the clause level but on the episode level, and the reference is to the basic content of the episode and not to any particular participant (example (5)). For calculation of average referential distances, I have counted their referential distance as being 1 clause.

Only 4 of the 60 zero anaphora examples had referential distances greater than 1. These are explained in section 2.1.1. The 6 "N" examples in the AGR column are first and second person subject agreement. As these are of the situationally evoked familiarity category, I haven't used these in the calculations of average referential distances. The 4 "N" examples in the PRO V column are explained in section 3.1.1. The 3 examples with referential distance of 20 in the AGR column are first and second person agreement, and one third person feminine described in section 7.2.

Tables I and II show that zero anaphora and agreement are, along with the rarer V-AGR NP, the proto-typical categories for high continuity, with zero anaphora being more continuous than agreement. Of the other two major devices (10 or more occurrences), PRO V is moderately continuous, and NP V is quite discontinuous.

Same subject (SS) vs. different subject (DS)

To assess the more traditional switch-reference function of various subject marking devices in Apurinã, I counted here whether a particular instance of a referent appearing as subject either continued after a preceding clause where it also appeared as a subject (SS), or alternatively appeared following a clause in which another referent was the subject (DS).

The results of this measurement are given in Table III below. The ranking obtained in Table III, in terms of the percentage of SS vs. DS within each category, follows in broad outline the ranking given in the measurement of referential distance. Grammatical agreement is shown to preserve subject continuity, with 70 percent SS value. Zero anaphora, however, only has 52 percent SS value, thus is only in the middle range in preserving subject continuity. This seems to be because this referential device is primarily to allow the action to be emphasized and not to keep the subject continuous. Zero anaphora appears to be used for unity of actions rather than unity of participants. The others are shown as primarily subject switching devices, with values ranging from 71 percent DS (PRO V) to 100 percent DS (PRO V-AGR). The measurement for the referential device on the episode level does not really have much significance here as this does not function on the clause level. Thus the counts show that the most proto-typical SS marker (i.e. continuing subject) is agreement, and the most typical markers (more than 10 occurrences) for switch reference or DS are the free pronoun and noun phrase before the verb.

TABLE III:
RELATIVE DISTRIBUTION OF SS vs DS OCCURRENCES WITH EACH SUBJECT-MARKING CATEGORY

	Category	N	SS percent	N	DS percent	TOTAL N
	Ø	31	0.52	29	0.48	60
	AGR	150	0.70	64	0.30	214
	PRO	32	0.29	79	0.71	111
subject	NP	9	0.25	27	0.75	36
before	PRO + AGR	0	0.00	9	1.00	9
verb	PRO + NP	0	0.00	2	1.00	(2)
	PRO	1	1.00	0	0.00	(1)
subject	NP	1	0.20	4	0.80	5
after	PRO + AGR	1	0.50	1	0.50	(2)
verb	NP + AGR (Epis)	2	0.33	4	0.67	6
	PRO + NP + AGR	0	0.00	1	1.00	(1)

TABLE IV
AVERAGE REFERENTIAL DISTANCE FOR OBJECTS IN APURINÃ NARRATIVE

	Refer. Device	No. of clauses	Av. ref. distance in no. of clauses
	Ø	12	1.08
	AGR	64	2.08
object	PRO	(4)	(20.00)
before	NP	33	13.00
verb	Left Dis	(1)	(20.00)
object	PRO	5	1.80
after	NP	13	6.46
verb	Rt. Dis	(1)	(2.00)

6.1.2 Objects.

Of the major object referring devices (having more than 4 occurrences), the scale of continuity from highest to lowest is:

Highest Continuity — Lowest Continuity

Ø V PRO AGR V NP NP V

The most discontinuous is NP V. This is the position where 58% of all non-anaphoric entities are introduced into the discourse. All preverbal object devices are higher in referential distance than all postverbal devices. This again shows a striking tendency for new information to be introduced before the verb.

TABLE V:
PERCENT DISTRIBUTION OF REFERENTIAL DISTANCE
WITHIN OBJECT CATEGORIES
(Summary of 5 Texts Totalling 133 Clauses)

					Object Before Verb						Object After Verb					
No. of clauses since previous occurence of referent	zero anaphora		agreement		PRO		NP		Left Dis		PRO		NP		Rt. Dis	
1	11	.917	39	.609			7	.212			2	.4	3	.231		
2	1	.083	11	.172			2	.061			2	.4	3	.231	1	1.00
3			4	.063			1	.03			1	.2				
4			2	.031			1	.03					1	.077		
5			1	.016												
6																
7							1	.03					2	.154		
8													1	.077		
9			2	.031									1	.077		
10			1	.016												
11																
12																
13			1	.016			1	.03								
14							1	.03								
15							1	.03								
16																
17																
18																
19																
20							1	.03					1	.077		
*N			3	.047	4	1.00	17	.515	1	1.00			1	.077		
133	12	1.00	64	1.00	4	1.00	33	1.00	1	1.00	5	1.00	13	1.00	1	1.00

* N refers to non-anaphoric entities.

The 3 examples of "N" ref. distance in the AGR column in Table V are all second person singular occurring in three discourse initial clauses. As these are situationally evoked I did not count these in calculations of the average referential distances in Table IV. The 4 examples of "N" referential distance in the PRO V column are described in section 4.1.

Of the major devices, the only one with a high percentage of non-anaphoric occurrences (line N) is the NP V, with 52%. Like subject devices, the order Ø AGR PRO NP is the general scale of decreasing continuity. The postverbal position is much more continuous than preverbal. However, preverbal position is more common.

6.1.3 Other Categaries.

Other categories are possessives, second objects and locatives. Table VI shows that the scale of these ref. devices from most continuous to least with regards to average referential distances is as follows:

Most Continuous Least Continuous

Ø PRO V V PRO NP V V NP Rt Dis

The most continuous is Ø. Right dislocation only introduces the main discourse topic at the beginning of the discourse and so obviously is the least continuous in "lookback". Although the value of this scale is questionable because of the different syntactic categories involved as well as the small counts, it agrees with earlier scales in showing zero anaphora as the most continuous device, with PRO and NP following in that order. It is interesting, in comparison with the direct object, that postverbal devices do not show up here as more continuous; on the contrary, in both PRO and NP, the preverbal position is slightly more continuous.

TABLE VI

AVERAGE VALUE OF REFERENTIAL DISTANCE FOR OTHER CATEGORIES IN APURINÃ NARRATIVE

	Refer: Device	No. of clauses	Av. ref. distance in no. of clauses
	Ø	6	1.17
other before verb	PRO	6	1.33
	NP	12	9.58
	Left Dis	(1)	(1)
other after verb	PRO	4	1.75
	NP	8	8.63
	RT. Dis	4	20.00

TABLE VII

PERCENT DISTRIBUTION OF REFERENTIAL DISTANCE FOR OTHER CATEGORIES IN APURINÃ NARRATIVA
(Summary of 5 Texts Totalling 133 Clauses)

			Object Before Verb					Object After Verb				
No. of clauses since previous occurence of referent	zero anaphora		PRO		NP		Left Dis	PRO		NP		Rt. Dis	
1	5	.833	5	.833	3	.25	1 1.00	1	.25	3	.375		
2	1	.167			1	.083		3	.75	1	.125		
3			1	.167	2	.167							
4					1	.083				1	.125		
20					2	.167							
N					3	.25				3	.375	4	1.00
	6	1.00	6	1.00	12	1.00	1 1.00	4	1.00	8	1.00	4	1.00

6.2 Persistence.

"Persistence" or "decay" is the measurement in clauses of the continuance forward of a reference to a participant in ongoing clauses. For subject persistence, I counted the number of clauses "to the right" where the reference persisted as subject. For object persistence, I counted the clauses where the object participant persisted in whatever case-role. The absence of a referent in direct-quoted portions of the narrative was not counted as a gap, but neither was its presence counted as an added clause in the persisting chain. Where the reference to the participant immediately dies, then the persistence value is Ø.

TABLE VIII

AVERAGE VALUE OF PERSISTENCE AS SUBJECT FOR THE VARIOUS SUBJECT-MARKING CATEGORIES

	refer. device	no. of clauses	av. persistence in no. of clauses
	Ø	60	1.83
	AGR	214	1.51
	PRO	111	1.35
subject	NP	36	0.69
before	PRO + AGR	9	1.33
verb	PRO + NP	(2)	(0.00)
	PRO	(1)	(1.00)
subject	NP	5	1.00
after	PRO + AGR	(2)	(0.50)
verb	NP + AGR (Epis.)	6	1.83
	PRO + NP + AGR	(1)	(2.00)

6.2.1 Subjects.

The most persistent referential devices are zero anaphora and V-AGR NP. V-AGR NP functions on the episode level and the reference is to the episode topic (section 3.2.4). The least persistent is NP V. The scale from most persistent to least is as follows for those devices with more than two occurrences:

Most Persistent					Least Persistent
1.83	1.51	1.35	1.33	1.00	0.69
Ø	AGR	PRO V	PRO V-AGR	V NP	NP V

This scale is strikingly similar to the referential distance scale for subjects (section 6.1.1); the only real difference is the reversal in order of the rightmost categories. This seems to suggest that NP subjects in Apurinã are common both at the beginning and the end of equi-S chains, and that a slight difference might be that NP V tends to occur final, while V NP tends to occur initial in such chains. In particular, the four most common devices occur in the same ranking of persistence as for referential distance: zero anaphora, AGR, PRO V, NP V. V NP-AGR as the episode referent is very persistent because the reference is to the main discourse topic.

TABLE IX

PERCENT DISTRIBUTION OF PERSISTENCE AS SUBJECT
WITHIN SUBJECT CATEGORIES
(Summary of 5 Texts Totalling 447 Clauses)

					Subject Before Verb						Subject After Verb					
No of clauses in which the referent cont. as subject	Zero Anaphora		Agreement		PRO		NP		PRO+AGR	PRO+NP	PRO		NP		PRO+AGR	NP+AGR	PRO+NP+AGR
0	21	.35	101	.47	50	.45	22	.61	3 .33	2 1.00			4 .8		1 .5	1 .17	
1	15	.25	44	.21	23	.21	9	.25	2 .22		1 1.00				1 .5	1 .17	
2	7	.12	23	.11	16	.16	3	.08	2 .22							2 .33	1 1.00
3	6	.10	14	.07	7	.06	1	.03	2 .22							2 .33	
4	4	.07	11	.05	7	.06											
5	3	.05	8	.04	1	.01							1 .2				
6	1	.02	4	.02	3	.03											
7	1	.02	2	.01	1	.01	1	.03									
8			2	.01													
9	1	.02	1	.00													
10	1	.02	1	.00													
11			2	.01													
12			1	.00	1	.01											
Totals 447	60	1.00	214	1.00	111	1.00	36	1.00	9 1.00	2 1.00	1 1.00		5 1.00		2 1.00	6 1.00	1 1.00

6.2.2 Objects.

Using the most common object referential devices (more than 4 occurrences), the scale from most to least persistent (Table X), is as follows:

Most Persistent				Least Persistent
2.40	2.22	2.00	1.80	0.79
V PRO	AGR	Ø	V NP	NP V

The pronoun which occurs after the verb is the most persistent of the object referential devices. All of these examples occur in SVO clauses where the subject is also a free form. The least persistent is the NP before the verb. This is the position where 58% of all new participants are introduced into the discourse (section 4.1, 6.3). However, of the 22 new participants introduced here only one of these is a main discourse participant and so these participant references usually quickly decay. That is, the preverbal NP object is a characteristic means for introducing minor entities into the discourse.

The above scale is comparable to the scale of referential distance for objects (section 6.1.2); the only difference is that in the present scale, zero anaphora has moved from the first to the third position. This suggests that zero anaphora objects tend to occur medial rather than final in thematic units.

TABLE X
AVERAGE VALUE OF PERSISTENCE FOR OBJECTS IN APURINÃ NARRATIVE

	Refer. Device	No. of clauses	av. persistence in no. of clauses
	Ø	12	2.00
	AGR	64	2.22
object before verb	PRO	(4)	(0.50)
	NP	33	0.79
	Left Dis	(1)	(5.00)
object after verb	PRO	5	2.40
	NP	13	1.80
	RT. Dis	(1)	(0.00)

TABLE XI:
PERCENT DISTRIBUTION OF PERSISTENCE
WITHIN OBJECT CATEGORIES
(Summary of 5 Texts Totalling 133 Clauses)

			Object Before Verb			Object After Verb		
No. of clauses	zero anaphora	agreement	PRO	NP	Left Dis	PRO	NP	Rt. Dis
0	5 .417	20 .312	2 .5	16 .485			5 .385	1 1.00
1	2 .167	14 .219	2 .5	11 .333		3 .6	4 .308	
2	2 .167	5 .078		4 .121			1 .077	
3	2 .167	7 .109		1 .030		1 .2		
4		7 .109		1 .030			1 .077	
5		5 .078			1 1.00			
6		3 .047				1 .2	1 .077	
7		1 .016					1 .077	
8		1 .016						
9								
10								
11		1 .016						
12	1 .083							
133	12 1.00	64 1.00	4 1.0	33 1.00	1 1.00	5 1.00	13 1.00	1 1.00

Table X shows a great difference in persistence between pre- and postverbal NP objects (0.79 compared to 1.80), and Table XI shows the same thing in the wider spread of postverbal NP objects, even with a much smaller total. Postverbal NP objects are numerically closer to the high end of the persistence scale than they are to preverbal NP objects. Since postverbal PRO objects are actually highest on the scale, we see that postverbal objects of both kinds are high in persistence, while preverbal objects are low. Similarly, it was noted in section 6.1.2. that all postverbal object devices are higher in referential distance than all preverbal object devices. In short, postverbal objects are strikingly more continuous in both directions than preverbal objects.

TABLE XII:
AVERAGE VALUE OF PERSISTENCE FOR OTHER CATEGORIES
IN APURINÃ NARRATIVE

	Refer. Device	No. of clauses	av. persistence in no. of clauses
	Ø	6	1.50
other before verb	PRO	6	2.00
	NP	12	2.92
	Left Dis	(1)	(5)
other after verb	PRO	4	0.50
	NP	8	1.13
	RT. Dis	4	6.25

6.2.3 Other categories.

Table XII shows that the most persistent referential devices for other cases is right dislocation. This device was used solely for introductions of the main discourse topics (5.2). The free form before the verb is the next most persistent and the free form after the verb is the least persistent. The scale of most to least persistent of ref. devices with regards to average persistence in number of clauses is:

Most Persistent — Least Persistant

Rt.Dis NP V PRO V Ø V NP V PRO

Again, as in the case of subjects (sectlon 6.1.3), we notice a reversal of the scale when these oblique categories are compared with direct objects, for in the preceding section we saw that free postverbal direct objects are more persistent than preverbal. That is, for oblique categories as opposed to direct objects, it is the preverbal varieties that are more continuous in both directions, although, as we noted in section 6.1.3, it is difficult to draw too many hard conclusions here because of the different syntactic categories and the small counts involved.

TABLE XIII:
PERCENT DISTRIBUTION OF PERSISTENCE
WITHIN OTHER CATEGORIES IN APURINÃ NARRATIVE
(Summary of 5 Texts Totalling 133 Clauses)

	Object Before Verb								Object After Verb					
No. of clauses	zero anaphora		PRO		NP		Left Dis		PRO		NP		Rt. Dis	
0	3	.5	1	.167	3	.25			3	.75	5	.625		
1	1	.167	3	.5	3	.25					1	.125	1	.25
2									1	.25			1	.25
J	1	.167			1	.083					1	.125		
4			1	.167	1	.083								
5			1	.167	2	.167	1	1.00			1	.125		
6			1	.083							1	.25		
7														
8														
9	1	.167			1	.083								
16													1	.25
	6	1.00	6	1.00	12	1.00	1	1.00	4	1.00	8	1.00	4	1.00

6.3 Assumed Familiarity.

Ellen Prince's categories of assumed familiarity (see section 1) proved useful in certain observations. Out of the 447 clauses studied, 43 new participants (BN, BNa, and U) were introduced. Table XIV shows that 11 (26%) of these clauses were introduced as subjects, 22 (51%) were introduced as direct objects and 10 (23%) in other categories. The new participants introduced as objects all were preverbal, in agreement with the referential distance counts of section 6.1.2. The new participants introduced as possessives or second objects occurred mainly

after the verb, only three occurring before, in agreement with the referential distance counts of section 6.1.3. For subject introductions, the preferred position was before the verb, only one occurring after. Although this is not predicted by referential distances for subjects (9.42 for NP V and 12.40 for V NP, section 6.1.1), the 6 : 1 ratio of new preverbal to postverbal subjects is less than the 10.5 : 1 (158 to 15) ratio of all preverbal to postverbal subjects, and this is in line with the lower referential distance (higher "lookback: continuity) of preverbal as opposed to postverbal subjects. As regards the introduction of new participants, then, calculations of referential distance are seen to be reliable indicators for comparison between devices of the same syntactic category.

The occurrences of the (I) and (Es) types have already been explained in the appropriate sections.

TABLE XIV:
ASSUMED FAMILIARITY OF
APURINÃ REFERENCES

	Category	BN	BNa	U	I	Es	E	No. of cl.
SUBJECT	Ø						60	60
	AGR					6	208	214
	PRO		4				107	111
subject	NP	2	1	2	4		27	36
before	PRO + AGR						9	9
verb	PRO + NP	1					1	2
	PRO						1	1
subject	NP 1				2		2	5
after	PRO + AGR						2	2
verb	NP + AGR						6	6
	PRO + NP + AGR						1	1
OBJECT	Ø						12	12
	AGR					3	61	64
object	PRO		4					4
before	NP	12	1	4			16	33
verb	LEFT DIS	1						1
object	PRO						5	5
after	NP				1		12	13
verb	RT. DIS						1	1
***OTHER**	Ø						6	6
other	PRO						6	6
before	NP		3		1		8	12
verb	LEFT DIS						1	1
other	PRO						4	4
after	NP	3			1		4	8
verb	RT. DIS		4					4
	Totals	20	17	6	9	9	560	621

* The "other" category includes possessives, second objects and locations.

7 CONCLUSION.

There are four main areas where conclusions can be given. These are: basic word order, participant introduction and maintenance, disambiguation and thematic units.

7.1 Basic Word Order.

For subjects, the overwhelmingly predominant word order is before the verb. Only 15 of the 173 free subjects occurred after the verb and in each of these, the subject after the verb gave a summary statement of the discourse topic (section 3.3).

For objects the more frequent word order was before the verb with 38 (67%) of the 57 free objects. This preverbal object position waa the most frequent way of introducing new participants (51% of all new participants), whereas the postverbal object position did not introduce any new participants. This correlates with figures for referential distance: all preverbal object devices are higher in referential distance than all postverbal object devices. (In fact, preverbal objects are less continuous in both directions than the corresponding postverbal objects.) There is thus a clear statistical correlation of indefiniteness/newness with preverbal objects and definiteness/givenness with postverbal objects.

It is not clear what the implications of this correlation are for the determination of basic word order, for it is a matter of debate whether the direct object in a basic or neutral clause should be considered as characteristically definite or indefinite (see Givón 1979; section 2.2.1).

Eleven clauses had both free subjects and objects in the order SVO. Only three of these had had both subject and object as noun phrases. No new participants were introduced in these examples. 4 clauses had the order OSV, all with pronoun subjects. One of these clauses gave a new participant as object. Each of these orders represent only a small percentage of the total of 133 transitive clauses (8% for SVO, 3% for OSV). These percentages are even lower (2.5% and 0.9%, respectively) when the total of 447 clauses of all types is used as the basis for comparison. The other SV order, SOV, does not occur in the language at all, except as the characteristic order for quotative clauses (the quotation content being the direct object). Thus in clauses with free S and O, SVO predominates over OSV by a ratio of 2.75 to 1. But in all clauses with free objects whether or not there is a free subject - and here the number of occurrences is larger (58) - the situation is dramatically reversed, the order OV occurring twice as commonly as VO. Perhaps this simply reflects the tendency, in clauses with a single argument, for that argument to occur before the verb (this happens 93% of the time with subjects and 90% of the time with objects).

Therefore, although Pickering (1973) has argued for OSV as being the basic word order in Apurinã on syntactic evidence, the text counts of the present study indicate that the question is not so simple. This area must await further investigation, particularly in regard to specific discourse motivations for different orderings. At this point SVO seems also to be a viable candidate for basic word order, and the further possibility exists that no one order can be regarded as basic.

7.2 Participant Introduction and Maintenance.

New participants are usually introduced with noun phrases although one main participant was introduced with a left dislocated pronoun object (example (41)). 51% of all new participants

were introduced by the object before the verb. However, of these 22 new participants introduced in this way, only one was a main discourse participant.

The subject category was used to introduce 26% of new participants (11), all in intransitive clauses. Of these 11 new participants, 4 were main discourse topics and the other 7 had smaller but very important parts.

The remaining 23% of new participants were introduced by non-objects and non-subjects, as indirect objects or possessives. Of the 10 new participants introduced in this way, 7 were main discourse topics. At the beginning of each of the five discourses studied, main discourse topics were introduced in this way.

Thus in Apurinã, discourse introductions of main discourse topics are largely delegated to subjects and second objects and possessives. Low-persistent topics tend to be introduced by the object before the verb.

Re-introductions of participants are done by noun phrase subjects before the verb (section 3.1.2). Where the use of the pronoun is not ambiguous, the re-introduction is done by the pronoun before the verb plus verb agreement (section 3.1.3).

Changes of participant are done with the free subject pronoun before the verb (section 3.1.1) or, where this is ambiguous, with the noun phrase before the verb.

Where a discourse topic is established at the beginning of a thematic unit, agreement is used for continuing references to it. If there is a paragraph break or a change from direct speech to narrative, and the same topic continues, then the free pronoun is typically used once before references return to agreement again. Where the topic is emphasized (with left dislocation or with emphasis suffixes), here also the free pronoun is used.

Where another participant besides the discourse topic is mentioned as a noun phrase, the free pronoun is often used to emphasize the continuance of the same topic if gender is enough to distinguish between the two. Otherwise, a noun phrase is used.

When a main participant is returning to thematic status and is readily identifiable because of contextual semantics, then agreement can be used. There is one example of this in which one of the main discourse participants returns to thematic status after being absent for over 20 clauses. Because she is mentioned as fishing, there is no doubt as to who she must be. Zero anaphora is only used as an alternative to agreement to allow emphasis to fall on the actions of the participants; it occurs as an alternative to free forms in ideophones and quotation clauses.

7.3 Disambiguation.

Where there are two participants of the same gender together in a discourse, there are various ways to know who is doing what. Where there could be real ambiguity, then a noun phrase is given for clarification. A pronoun before the verb with verb agreement signals a participant returning as subject after a gap and therefore not the same subject as the previous clause (section 3.1.3). Apart from the NP and PRO V-AGR, the main way to show a change of subject is with the free pronoun before the verb. S-PRO V was used 79 times out of a total of 111 to indicate a change of subject (section 3.1.1).

7.4 Thematic Units.

Apurinã discourse is composed of episodes which are composed of paragraphs. The type of utterance which typically occurs at the end of an episode is the noun phrase after the verb with verb agreement (section 3.2.4). This is a summary statement of the episode topic. The zero anaphora subject with the summary verb txa also occurs at the end of episodes (section 2.1.1) V S order frequently occurs at the end or beginning of paragraphs in summaries relating to the discourse topic. An utterance that typically occurs at the beginning of a paragraph is S-PRO V-AGR; this re-introduces a participant after an absence. A free subject pronoun often occurs paragraph initially as this is the most common way to change a subject.

The initial utterance of a discourse is often a more complicated utterance, as the discourse topic is often introduced by means of a second object or possessive.

FOOTNOTES

1. The Apurinã tribe are found on the Purus River and its tributarias in the state of Amazonas, Brazil. They live in small scattered groups along 1500 km of the Purus, from Rio Branco to Manaus. The Apurinã language is classified as Arauak and is spoken by an estimated 1000-1500 Apurinã Indians.

The material upon which this analysis is based was gathered under the auspices of the Summer Institute of Linguistics in cooperation with the Fundação Nacional do Índio. This paper was written during the 1984 field workshop held in Porto Velho, Rondônia, Brazil under the direction of Dr. Desmond C. Derbyshire. Special thanks are due Francisco Kamaioti for his willingness to share the richness of his language and customs, and also to Robert Dooley and Juliann King for their assistance in the preparation of this paper.

2. The vowels of Apurinã are: i (i, I, ɨ, ,), e (e, E, ,), a (a, ,), o (o, u, U) and the same set nasalized except that the nasalized vowels do not have voiceless allophones. The consonants are: p (p, b), t (t, d, tʸ), k (k, g, kʸ, gʸ), ¢ (ts), c (t, d), s (s, z), s (s, z), r (r, l), m, n, h and u (u patterns as a consonant). ¢, c and s are written as ts, tx and x respectively.

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ABBREVIATIONS

ADVERS	Adversative	INTR	Intransitivizer
AFFIRM	Affirmative	LOC	Location
AG	Agent	M	Masculine
ASSR	Assertive	MOD	Modified
BEG	Beginning of action	NEG	Negative
COMPL	Completed action	NOM	Nominalized verb
CONT	Continuing into future	PAT	Patient
CONTR	Contrast	PL	Plural
DEP	Dependent	POSS	Possessed
DIR	Direction	PROL	Prolonged
DISTR	Distributive	REFL	Reflexive
EMPH	Emphasis	SG	Singular
F	Feminine	STAT	Stative
HORT	Hortative	UNPOSS	Unpossessed
INSTR	Instrument	1	First Person
INT	Intention	2	Second Person
INTER	Interrogative	3	Third Person

APPENDIX

Francisco Kamaioti, who lives in the village of São João near to the town of Tapauá on the Purus River, told me this Apurinã legend in 1978.

/// indicates the beginning of an episode.

// indicates the beginning of a paragraph

THE ANIMAL-PERSON

/// 1 Erepani iuaĩkana nisãperenauata.
right there-coming again 1SG-teIl-INTR
Here again I'm going to tell a story.

2 Ãti pirena nisãpiretai, tokĩtxi.
another-M talk about 1SG-tell to-2SG animal person
I'm going to tell you about another one, the tokĩtxi.

// 3 Aua ĩtopa tokĩtxi.
live jungle animal person
The tokĩtxi lives in the jungle.

4 Ĩtopa sikari imaĩka,
jungle go-NOM-AG-3M 3M-grab
He grabs people who go to the jungle,

5 oka.
kill
and kills them.

// 6 Merasaaki kãkiti ixipoka.
first-when people 3M-finish
At first he was finishing people off.

7 Itopa sikari imaĩka.
jungle go-NOM-AG-3M 3M-grab
He would grab people who went to the jungle

8 Kona kokikori.
NEG STAT-kill-NOM-PAT-3M
He wasn't one who was able to be killed.

// 9 Ininiã eereka ipi sa, popĩkari.
so afterwards two go Apurinã-M
So afterwards two Apurinã men went off.

10 Ãti ipinimoni aiata.
one-M side-DIR hunt
One went off in one direction to hunt.

11 Ãti ipinimoni sa iua takota.
other-M side-DIR go he near
The other went off in another direction near to him.

12 Eereka ikenakotari,
afterwards 3M-hear-3M
Afterwards he heard,

13 "So, so, so," itxa.
so so so 3M-ASSR
"So, so, so."

// 14 Ininiã iua iokaka txari.
so he reply to ASSR-3M
So he replied to him.

// 15 Imianari iuãkatari.
3M-companion-M 3M-presume-3M
He presumed it was his companion.

16 Ininiã iua, "so so", txa.
so he so so ASSR
So he went, "So, so."

// 17 Ininiã eereka ina itxa iuamoni.
so afterwards come 3M-ASSR he-DIR
So afterwards he (tokĩtxi) came towards him.

// 18 Iatokope, "so, so", itxa.
near-BEG so so 3M-ASSR
Getting closer he went, "So, so."

// 19 Ininiã 'so so' itxa popĩkari.
so so so 3M-ASSR Apurinã
And so, "so , so ", went the Apurinã.

// 20 Ininiã eereka ina itxa iuamoni.
so afterwards come 3M-ASSR he-DIR
So he (tokĩtxi) came towards him further.

// 21 Etapa itxari.
see-coming 3M-ASSR-3M
He saw him coming.

// 22 Tokĩtxi txaua!
animal person ASSR-REFL
It was a tokĩtxi!

/// 23 Ininiã iua na mitekini auaika.
so he NEG run-DEP be-CONTR
So there was no running any more for him.

24 Nãpa imiteka?
LOC-INTER 3M-run
Where would he run?

25 Kisaakipa imiteka?
what-when-INTER 3M-run
What time did he have to run?

// 26 Iuasaaki tokĩtxi auĩte tok!
that-when animal person chief sound of smashing
Then the chief tokĩtxi went smash!

27 Tokĩtxi pakauanaka.
animal person smash
The tokĩtxi smashed his head.

28 Tok!
sound of smashing
Smash!

29 oka txapiri.
kill ASSR-BEG-3M
and killed him.

// 30 Ininiã imianari kenakota - iuanoka.
so 3M-companion-M hear he-total
So his companion heard - he was the only one.

31 "Kipa atxiĩ?"
what/who-INTER perhaps
"What can that be?"

32 itxa.
3M-ASSR
he thought.

// 33 "Nota uai aua."
I here be
"I'm here.'"

34 "Nimianari kai."
1SG-companion-M there
"My companion's over there."

35 Ipi kaimoni isa iua..
two there-DIR 3M-go he
Two went off in that direction.

36 Uaimoni isa ãti.
here-DIR 3M-go another-M
Another went in this direction.

37 "Kipa?"
what/who-INTER
"What is it?"

38 Iua sa iua manapi.
he go he towards
He went towards him.

39 Amaãtiki isaãponãta.
slowly 3M-go-PROL-STAT
Slowly he was going on and on.

40 Itikapokoãpoanãta.
3M-watch-all-PROL-STAT
He was watching everything as he kept going.

41 Etapa itxari.
see-coming 3M-ASSR-3M
He saw him coming.

// 42 Itikari.
3M-watch-3M
He watched him.

43 Inikapekari.
3M-eat-COMPL-3M
He had eaten him.

44 Atiarõka,
3M-rip apart
He had ripped,

45 atiarõka.
3M-rip apart
and ripped him apart.

46 Itxaãpota.
3M-ASSR-PROL
That's what he had kept doing.

// 47 Ininiã eereka iua etapa txari.
so afterwards he saw-coming ASSR-3M
So then he saw him approaching.

// 48 Namaripoari,
NEG-big-big-3M
He was really big,

49 ininiã iua,
so he
and so he realized,

50 "Ii tokĩtxi.
gosh animal person
"Gosh, it's a tokĩtxi."

51 Iua napa.
he escape
He escaped.

52 Ĩkorape.
3M-off-BEG
Off he went.

// 53 Inakasaakipe popĩkari miteka aapoko.
be-when-BEG Apurinã-M run 3M-house
Then the Apurinã ran to his house.

54 Isãpirenauata iniremanemoni,
3M-tell-INTR 3M-relative-DIR
He told the story to his relatives.

55 "Tokĩtxi okapiri nimianari."
animal person kill-BEG-3M 1SG-companion-M
"The tokĩtxi has killed my companion."

56 "Namonipa?"
LOC-DIR-INTER
"Where?"

57 "Iuaxiti!"
that-place
"There!" (showing direction)

// 58 Eereka ninoa sa iuaxiti.
afterwards they go that-place
Then they went to that place.

59 Eereka iuaxiti apoka.
afterwards that-place arrive
Then they arrived there.

60 "Akamoniko 'so so' inakasaa akamoni piokakariko.
short while-DIR-INT so so be-when short while-DIR 2SG-respond-3M-INT
"In a short while when you hear 'so, so', then you must respond to it."

61 Iuasaa pimiteka.
that-when 2SG-run
Then you must run.

62 Iuasaa ate iãtapariko,"
that-when we exclusive wait for-coming-3M-INT
Then we will wait for him to come.

63 iua inirimane txa.
he relative ASSR
his relatives said.

// 64 "Ĩteeneka."
okay
"Okay."

65 Eereka isa,
afterwards 3M-go
Then he went,

66 apoka iuaxiti.
arrive that-place.
and arrived there.

67 Iua tõpa 'so so' itxa.
he area so so 3M-ASSR
In his area he (tokĩtxi) went 'so, so'.

// 68 Iua iokaka txari.
he respond ASSR-3M
He responded to him.

// 69 Ininiã eereka iuamoni ina itxa.
so afterwards he-DIR come 3M-ASSR
So then he (tokĩtxi) came towards him.

// 70 Inakasaakipe popĩkari miteka txa.
be-when-BEG Apurinã run ASSR
When that happened the Apurinã started to run.

/// 71 Inakasaa apanakini iãtapapekari.
be-when others wait for-coming-COMPL-3M
While this was happening the others were already waiting for him.

72 Inakasaakipe tokĩtxi ina, iua popĩkari miteẽkari tikini.
be-when-BEG animal person come he Apurinã run-NOM-AG-3M after
At that point the tokĩtxi began to come after the Apurinã who was running.

73 Ikasaakipeka,
3M-come-when-COMPL
When he had come,

74 ninoa apanakini apakapa,
they others receive
the others got him,

75 xiripitxiã kimataãpita.
arrow-UNPOSS-INSTR pierce
and pierced him with an arrow.

76 Iuasaaki oka itxapiri tokĩtxi.
that-when kill 3M-ASSR-BEG-3M animal person
That was when they killed the tokĩtxi.

// 77 Itxa ãti tokĩtxi ĩtopa auakari.
3M-ASSR one-M animal person jungle be-NOM-AG-3M
That's him, one kind of tokĩtxi who lives in the jungle.