

DISCOURSE GRAMMAR

STUDIES IN INDIGENOUS LANGUAGES OF
COLOMBIA, PANAMA, AND ECUADOR

PART 2

Robert E. Longacre, editor

Frances Woods, assistant editor

resguardosuya, nasa iisa ty cjaambu atú'.
reservation-in person each they staff-of-office carry.
Cyāa cjaambu yu's- a' baston tyi yase'.
That staff-of-office (theme) [to] baston they name.
Cyāa baston yu' --pālmā chundana ū'tsrra', jycuette
That baston (theme) palm ohonta, carving-SS, tip-on
viyu-chijme pjaatnisa piyājte viyu-chijme īi sulityjica
silver hammered middle-in! silver cane ring
na'wē fyutsni ty, qui'pu'. Cyteea' cordon beesa
like-one nailed they put. There cord red-one
tsēysa na'wē ty tūndó', cordon vitssu cjasas
blue-one thus they tie, cord tips-on wool
āch-na'wē umnisa. Cyāa yu' autoridad atni'
saucer-shaped woven. That (theme) officials to-carry
jī'ty. Cyā's atrra ty cabildu-nasa maa
they-say. That carrying-SS they town-officials some
ī' wejy iwejch iwejch sa' maava
(intens.) more proud and-SS whoever
gycajn āasu āra āra ū'. Cyā'wē yūorra
so-may-see in-open carrying-SS they go. Thus doing-SS
hasta Payaan pa'j gva ā's atrra ty u'jue'.
to Popayán to then that carrying-SS they go.
Pescalsa' cjaambu ū'tsrra',
Lesser-officials spoke to, to-belong-SS.
fytūcuerrāva atū'ty
stick-only carry-SS.

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OF COLOMBIA, PANAMA, AND ECUADOR

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DISCOURSE GRAMMAR:

STUDIES IN INDIGENOUS LANGUAGES

OF COLOMBIA, PANAMA, AND ECUADOR

Robert E. Longacre, editor

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THE ENCODING OF CHRONOLOGICAL PROGRESSION IN CACUA NARRATIVES
by Marilyn E. Cathcart and Stephen H. Levinsohn

This article sorts out in very plausible fashion a bewildering variety of connectives in Cacula. Especially noteworthy in this article is the fresh ground broken in relation to a subtle difference in back-reference in the onset of one sentence to a verb found in the previous sentence. Thus, given a sentence such as 'I went downtown and bought a hamburger', the next sentence might conceivably begin with 'After eating it I...' or with 'After buying it I...'. In the first case, the second sentence refers back to the first by means of an expectancy chain, that is, it is expected that acquisition of food is followed by eating it. In the second case, there is explicit reference to the act of buying the hamburger and the second sentence picks up explicitly from this point. Cathcart and Levinsohn show in this article that in Cacula back-reference along an expectancy chain continues a discourse in the original direction, while back-reference involving the precise verb mentioned previously turns the discourse in a new direction. There also is a discussion in this article of the function of fronting of a participant reference to the fore of the sentence, as well as some insightful remarks about the role of nominalizations in discourse. Here, as in other articles in which Levinsohn is involved as an author, there is careful attention to the matter of establishing a new point of reference in discourse in building one action upon another.

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0. Introduction

In Cacua¹ Narrative Discourse, backbone actions are chronologically ordered. Chronological progression between and within paragraphs is achieved by the use of locational links, temporal links, and also by the use of logical links. The locational links are used in travelogue Narrative Paragraphs. The temporal links are used in all Narrative Paragraphs except travelogues. The logical links are used in Result, Circumstance-Response, Simple Exchange, Dialogue, and Complex Dialogue Paragraphs.

This paper is limited to the consideration of temporal and logical links. Both of these links separate into two sets: a) the set whose members link actions or groups of actions that build on each other, assuming a previously established overall point of reference (Sections 1.1 and 2.1); b) and the set whose members establish a new point of reference for the following action(s) (Sections 1.2, 2.2, and 2.3). Members of the latter set of links also indicate whether the actions which follow the new point of reference represent a change in the direction of the discourse or not.

After distinguishing the function of each of the temporal links in Section 1, corresponding logical links and combinations of links are considered in Section 2. The conditions under which a logical, rather than a temporal, link is employed are also discussed in the latter section.

1. Temporal Links

Two basic types of temporal links² are employed in narrative material in Cacua: *tət²ti⁴mah⁴* 'then'² (Section 1.1), and dependent forms of the verb (Section 1.2). The function of *tət²ti⁴mah⁴* is to introduce a new action which succeeds a previously stated and distinct action or set of actions, generally within the same paragraph. It does not establish a new point of reference for the action it introduces; rather it assumes a previously established point of reference and simply indicates that a lapse of time occurred between the previous action(s) and the one it introduces.³ As such, *tət²ti⁴mah⁴* characteristically links Buildup units³ within a paragraph.

Dependent forms of the verb, by contrast, establish a new point of reference for the action(s) they introduce. The relationship of this point of reference to the previously stated action(s) is precisely defined, both with respect to time and with respect to the participants involved. Dependent forms of the verbs characteristically occur at the boundaries of paragraphs, both embedded and unembedded.

1.1 $t\acute{a}t^2ti^4mah^4$ Linkage

If the relationship between two actions (or sets of actions) is primarily chronological, and the second action builds on the first, in the sense that it assumes the same previously established overall setting or point of reference as the first, then the second action is described in a sentence employing the temporal link $t\acute{a}t^2ti^4mah^4$ 'then'. This link most commonly occurs initially in the sentence.

Example 1.

'She entered Mom's place. $t\acute{a}t^2ti^4mah^4$ (then) they talked together.'

However, in situations involving two (or more) participants, the subject may be fronted to precede the $t\acute{a}t^2ti^4mah^4$ link. This is found both in situations where the participants do not confront each other (Example 2), and also when there is a switch of interest from the actions of one participant to those of another (Example 3). The effect of this subject fronting is to tell the listener to concentrate in the following section on the actions of the participant so signaled, even though other participants may be present. Reference to the subject followed by the presence of $t\acute{a}t^2ti^4mah^4$ therefore indicates that the action being introduced assumes the same point of reference as the previous one(s), except that the spotlight has switched to a different participant.

Example 2.

'Dad went to the jungle. Aunt Victoria went to the field. Dad $t\acute{a}t^2ti^4mah^4$ (then), when Aunt Victoria was there hidden, went in front of her.'

Although the actions of both Dad and Aunt Victoria are described in the following sentences, the fronting of the reference to Dad indicates that his actions are the important ones. Aunt Victoria's actions are no more than stimulated by his.

Example 3.

'We saw Aunt. There was a big piece of flesh below her wrist. Aunt said (explained) to us, "That crazy old thing cut me up." Aunt $t\acute{a}t^2ti^4mah^4$ (then) said, "Tell your mom and have her bring some food because I'm going away."

There is a shift of interest from 'us' (seeing 'Aunt', and (implied) asking her what happened), to 'Aunt' (sending 'us' away, and eventually returning home herself).

1.2 Dependent Forms of the Verb

The occurrence of a dependent form of a verb, introducing a sentence, establishes a new point of reference for the action(s) it introduces. The verb most commonly refers, in some way, to

the last action described, although it may refer to an action described earlier in the discourse. The relation of the reference to the last action -- a repeated reference to the same action, or a reference to the next action along some sort of expectancy chain -- indicates whether the new action(s) being introduced represents a change in the direction of the discourse or a continuation in the same direction.

Before this distinction is discussed (Section 1.2.2), however, the different morphological forms of dependent verbs used as links are discussed.

1.2.1 Functions of the Verbal Links

Three basic types of link, employing dependent forms of the verb, may be distinguished on the basis of the morphemes involved. These are presented in the following chart:

	Relationship:	Indicated by:	
		morpheme	phonological features
Type 1	DS 'when/because' SS	-V ^h chah ^h -nit ^h	level intonation; no pause
Type 2	'before' 'during/while' 'after'	-at ^h jātin ^h -at ^h ponih ^h -at ^h tət ^h tɪ ^h mah ^h	level intonation; no pause
Type 3	simultaneous(DS)/ sequential(SS) action	verb stem with no affixes	upglide intonation; slight pause

Chart 1.

DS indicates that the verb to which -V^hchah^h is attached has a different subject than the following independent verb.

-V^h indicates the reduplication of the last vowel in the verb root preceding the suffix if that root ends with a consonant, or -na^h if the root ends with a vowel.

SS indicates that the verb to which -nit⁴ is attached has the same subject as the following independent verb.

The use of the Type 1 verbal link, employing the different (-V⁴chah⁴) or same (-nit⁴) subject marker, indicates a much closer link between the two actions than do any of the other forms of verbal linkage. It indicates that the two actions are in close sequence, often reflecting a cause and effect relationship. This close association of the two actions and the change or lack of change of subject are the prominent features in this type of back-reference.

Example 4.

'Dad arrived back just after noon. Dad arrive-back-u⁴chah⁴ (arriving back(DS)), Aunt said to us, "You two go down to the port."'

Example 5.

'When they came through the creek, she saw them. Mom see-nit⁴ (seeing(SS)), she stooped over and went running home.'

The use of the Type 2 verbal link (an axis-relator phrase), employing the nominalizing suffix -at⁴ attached to the verb stem, followed by the temporal relators jätih² 'before', ponih² 'while/during', or tət²ti⁴mah⁴ 'after', makes the temporal relationship between the two actions explicit. It neither indicates whether or not the subject changes, nor whether or not the two actions are closely associated together, such as in a cause-and-effect relationship (contrast Type 1). The morpheme jätih² is used when the second action takes place before the first, ponih² when the second action takes place during the first, and tət²ti⁴mah⁴ when the second action takes place after the first.

Example 6.

'At that time I went to sleep. I woke up again when it got light. Get-light-at⁴ jätih² (before it became light), I woke up.'

In this example, the verbal link is employed to correct the statement made in the previous sentence.

Example 7.

'We went to look for her with the women. They look-for-at⁴ ponih² (during their search), Lady arrived back.'

Example 8.

'Yesterday they went. They go-at⁴ tət²ti⁴mah⁴ (after their departure), we went to get a tapir.'

The Type 3 verbal link, which consists of a verb stem without affixes, is unmarked either for a specific temporal relationship (contrast Type 2), or for close association and same/different subject (contrast Type 1). (The effect of the upglide intonation and pause is to indicate that the verb form is dependent, so as to link the previous sentence and the following independent clause. The same verb form may be used in an independent clause with downglide intonation.) If the subjects of the link and of the following clause are the same, the actions are in sequence; if they are different, the actions are simultaneous.⁴

Example 9 (subject same; actions in sequence)
(verbal link underlined).

'Dad arrived at Wacará. Arriving there, early the next morning he went to Mitú.'

Example 10 (subject different; actions simultaneous)
(verbal link underlined).

'Aquí said to them, "You all run away out of here! You running away out of here, I am going to cut her up and kill her."¹

The focus of these three types of verbal links is summarized in the following chart:

	Close Association of Action (Same/Different Subject)	Precise Time Relationship Between Actions
Type 1	focused on	not focused on
Type 2	not focused on	focused on
Type 3	not focused on	not focused on

Chart 2

The Type 1 and Type 3 forms of verbal link may be modified by the morpheme pe^2a^4 'finish'.⁵ This morpheme occurs when the verb to which it is attached denotes an action occurring over a span of time, rather than at a point in time. When pe^2a^4 modifies a Type 1 link, the focus shifts from the close association of the actions to the finishing of the first action before the beginning of the second. (Change or lack of change of subject is still signaled.)

Example 11.

'She rinsed the yuca. Rinse-pe²a⁴-na⁴chah⁴ (on finishing rinsing(DS)), Leticia came.'

When pe²a⁴ modifies a Type 3 link, the emphasis again is on the finishing of the first action. This necessarily limits the relationship between the two actions linked to that of sequence.

Example 12.

'Finishing grating, the starch she rinsed out. The starch rinse-out-pe²a⁴ (having finished rinsing out the starch), she entered Mom's place.'

1.2.2 Expectancy Chain Vs. Backreference

The majority of the examples given above, to illustrate the type of verbal link found, involve a repetition of the reference to the action of the immediately preceding sentence, albeit in a dependent form. See, for instance, Examples 4, 5, 8, 9, 10, 11, and 12. (Where required, the reference may be to an action which was described earlier in the discourse instead of in the immediately preceding sentence, e.g., Examples 17 and 18 below.)

A second means of making a connection through the dependent verb link to the action of the immediately preceding sentence is by referring to the next step along what, to the Cacua, is an expectancy chain of actions. Example 7 illustrates one such expectancy chain, stating the purpose of performing an action in one sentence, 'went to look for', and the performance of the purpose in the next, 'looked for'. More common (especially in combination with the logical link panih⁴ or panih⁴at⁴ (Sections 2.2 and 2.4)) is reference to a different, but 'expected', action in the second sentence.

Example 13.

'Yesterday I said, "Come and eat!" Panih⁴ (based on that) I arrive-u⁴chah⁴ (on arriving(DS)), they followed me and arrived.'

(The person who issues an invitation to a meal is expected to lead the way to the meal.)

Example 14 (verbal link underlined).

'When the man floated the turtle downstream, "There you will eat fish," the man said. Panih⁴at⁴ (all that) hearing, the turtle was eating fish there.'

The differences between employing a verbal link which refers to the next action along an expectancy chain of actions, and employing one which refers back to the action itself, are summarized as follows:

a) a reference to the next action along an expectancy chain is employed in narrative when, although a new point of reference for the following action(s) is established by the link (as at the beginning of a new paragraph), the following action(s) will continue to take the story in the same direction.

b) by contrast, reference back to the action itself characterizes some sort of change of direction in the story.⁶ Reference back to a previously stated action is employed to achieve a number of different, but closely related, effects. It may be employed to pause to correct a statement (Example 6) or to reinforce a statement, as for example in Example 15 below where the narrator states what almost happened and thus indicates the extent of the argument.

Example 15.

'Tət²ti⁴ma^h' (then) they argued. Tət²ti⁴ma^h' they argue-nit⁴ (then, arguing(SS)), they almost hit each other.'

Reference back to an action is commonly employed to indicate a complete change of direction in the story. This may be a move from background information to the main actions of the narrative, as for example in Example 8 where the departure of the other participants forms the setting for the hunt for the tapir, which is the principal part of the story. It may also correspond to a change of direction, within the main actions of the narrative. In Example 5, for instance, the repetition of the reference to Mom seeing the police occurs at the point at which the nature of Mom's actions changes completely. Up to the point of seeing the police, she was working in the field. On seeing them, she races to the village, and raises the alarm. In Example 9, the repetition of the reference to Dad's arrival introduces the paragraph which contains the Inciting Event for the rest of the narrative. In it he is pictured, taking his wife to Mitú, getting treatment for her there, and in particular informing the police about the fight. The previous paragraphs concerned his trip to bring his wife's relative back to the village for the purpose of avenging the wrong done to his wife. At the paragraph break a new plan goes into effect, i.e., going to the police in Mitú instead of taking revenge themselves. The whole tempo of the story changes with the paragraph break. In Example 16 below, the unexpected presence of Dad in the house changes the direction of the story as it involves Aunt Victoria, since it is at that point that he takes her side, as previously in the narrative they had been antagonists.

Example 16 (verbal link underlined).

'Aunt Victoria ran away up into Dad's house. Running away up into there, Dad was sitting in that house. Dad said to Aunt, "Run away! He's coming to cut your head off."

Most commonly, however, reference back to a previously stated action is employed to indicate a move from the main actions of the narrative to background actions, possibly involving different participants than those previously dealt with. For instance, in Example 4, the movement is from Dad's arrival to Aunt's sending away the children and what the latter did. (The main actions of the immediately following part of the discourse actually involve Dad and Aunt.)

One very clear case of the use of the verbal link to refer back to a previously stated action is when the reference is to a point further back in the narrative. This technique may be used to return to the backbone after a divergence. The divergence may be very brief, as in Example 17 below where the two intervening sentences explain how the tracking mentioned in the first sentence was done, or it may consist of several paragraphs (see Example 18).

Example 17 (verbal link underlined).

'We tracked Aunt Victoria. Lots of blood lay on the leaves. There was lots of blood. Thus tracking, we arrived.'

Example 18 (verbal link underlined).

'Dad went to Homer's place.'
(The stages of the trip to Homer's place are described in detail.)
'Thus Dad going, arriving, ...'

When the verbal link is used to return to the backbone after a divergence, as in Examples 17 and 18, the association of the new backbone action with the one referred to is as close as if they had occurred in immediately succeeding sentences. The intention of the divergence is to give added information, such as an explanation, and is not intended to destroy the close association of the two sentences.

The verbal link may, however, refer back to an earlier action of the backbone. This enables the narrator to develop the previous material further.

Example 19.

'Finishing washing the yuca in the creek, leaving, arriving at the house, grating the yuca, finishing grating, she washed out the starch ...

'I want to backtrack here: Aunt finishing grating the yuca, wash-pe²a⁴-na⁴chah⁴ (on finishing washing(DS)), Leticia arrived.'

In summary, the difference between employing a reference to the next step along an expectancy chain of actions and employing a reference back to a previously stated action, lies in whether the following actions are viewed as taking the story in the same direction as previously established or as changing its direction. Use of the 'expected' verb indicates that the direction of the story remains unchanged, whereas use of a reference back to a previous action indicates a change in the direction of the story, either to pause to give a correction or amplification, to move to or from tributary material, or simply to change the direction of the main actions.

1.3 Distinctive Features of Temporal Links

The distinctive features of the temporal links found in Cacua are presented in Charts 3 and 4.

tet ² ti ⁴ mah ⁴ (Section 1.1)	- New point of reference
Verbal Links (Section 1.2)	<div> <div>+ New point of reference</div> <div> <div>Backreference: + New direction to story</div> <div>Next Expected</div> <div>Action: - New direction to story</div> </div> </div>

Chart 3. Distinctive Features of tet²ti⁴mah⁴
and Verbal Links

Verbal Links	Type 1	+ Close Succession	-V ^h chah ^h : + change of subject -nit ^h : - change of subject
	Type 2	+ Precise Time Relationship	(unmarked)
	Type 3	(unmarked)	(unmarked)

Chart 4. Distinctive Features of
Types of Verbal Links

2. Logical Links

The use of panih^h and forms based on it indicate one or both of two relationships between the actions it links. On the one hand, it indicates that primarily a logical rather than a temporal relationship exists between two actions; for example, the natural answer to a question does not occur because of a lapse of time (temporal link), but because the question was asked (panih^h link). On the other hand, panih^h acts as a pro-verb in the sense that it is used to indicate the whole group of actions in the preceding (often embedded) paragraph. Many of the same suffixes which occur on verbs (both included and independent) to indicate relationships between sentences within paragraphs also occur on the pro-verb panih^h to indicate similar relationships between paragraphs.

Two basic types of logical links are found: panih^hna^h, the logical equivalent of tet²ti^hmah^h 'then', which indicates that the following action builds on the previous one(s) and is of more importance (Section 2.1), and links based on panih^h which employ the same suffixes as the verbal links of Section 1.2, and are their logical equivalents (Section 2.2). The verbal links of Section 1.2 may also be modified by panih^h (Section 2.3). Nominalized forms of panih^h are considered in Section 2.4.

2.1 Panih^hna^h Linkage

If the relationship between actions (or sets of actions) is primarily logical and the second action follows on the first in the sense that it assumes the same previously established overall setting or point of reference as the first, then the second action is described in a sentence employing the 'weighted' logical link panih^hna^h. The effect of the suffix -na^h is to indicate that the following action is of more importance than the one referred to by the element to which -na^h is attached. Within and between sentences, -na^h has this function when it is attached to a verb.

Example 20.

'Where the trail emerges, Aunt over her shoulder looked-na⁴. She saw Arvino.'

The function of the -na⁴ is to indicate that the important action of the paragraph is not Aunt's looking over her shoulder but rather the action that follows from it, i.e., Aunt seeing Arvino.

Attached to panih⁴, -na⁴ indicates that the following action is of more importance than the ones to which panih⁴ refers and which it follows. In Example 21 below, for instance, each action introduced by panih⁴na⁴ represents a 'step up' in importance. Dad's words to Aunt are of more consequence than his sitting in the house, Aunt's response to his words are more important than the words themselves, and so on, until the climactic action, Aquí's appeal to Arvino, is reached.

Example 21.

'Aunt Victoria ran away up into Dad's house. Running away up into right there, Dad sat in that house.

Panih⁴na⁴ Dad said to Aunt, "Run away! He's coming to cut your head off."

Panih⁴na⁴ she ran away out the back door. When she landed, she ran. She came running across where the ant hills are.

Panih⁴na⁴ where the trail emerges, Aunt over her shoulder looked-na⁴. She saw Arvino. She said to Arvino, "Uncle cut me with his machete."

Panih⁴na⁴ Aquí said to Arvino, "Come and chant over me!"

Since the use of panih⁴na⁴ indicates that the following actions build on the previous ones, panih⁴na⁴ is used to introduce the conclusion of a paragraph.

Example 22.

'Aunt fell there. She lay right there partly in the water. She thought, "Am I going to die?"

Panih⁴na⁴ after it got dark, Aunt arrived back.'

Like tət²ti⁴mah⁴, panih⁴na⁴ normally occurs initially in the sentence, though again, in situations involving two or more participants, the subject may be fronted to precede the panih⁴na⁴ link. This occurs when there is a switch of interest from the actions of one participant to those of another. The effect of this subject fronting is to tell the listener to concentrate in the following section on the actions of the participant so signaled, even though other participants may be present.

Example 23.

'Over there from the rock pile three policemen came. They came there in front of Aquí's house. They put their guns down. They came. Doing so, two of them went on by over to Miguel's house ... The other one was hidden standing looking at Mom from behind her. Mom panih⁴na⁴ jumped down out of the house. When she jumped down from there, the other one came from where he was.'

The fronting reference to Mom indicates that interest switches from the policemen to her. The rest of the paragraph is centered around Mom's reactions and answers as the policemen question her.

Example 24.

'Then Dad and Victoria argued and almost hit each other. Dad panih⁴na⁴ went to his father's house.'

The next actions, which involve a new set of participants, center around Dad. Victoria is not involved in them.

The differences between the logical link panih⁴na⁴ and its temporal equivalent tut²ti⁴mah⁴ 'then' are twofold. One is that panih⁴na⁴ makes prominent the logical relationship between the actions it links, even though they may also be in chronological sequence. The other is that panih⁴na⁴ 'weights' the actions relative to each other, whereas tut²ti⁴mah⁴ does not, so that, if the narrator wishes to indicate that the following actions are of more importance than the previous ones, panih⁴na⁴ is employed.

The following pair of examples illustrate the difference between panih⁴na⁴ and tut²ti⁴mah⁴.

Example 25'.

- (i) 'Aunt then said to us, "Tell your mom ...!"
- (ii) Panih⁴na⁴ we returned to Mom's place and told her.'

Example 25".

- (i) 'Aunt then said to us, "Tell your mom ...!"
- (ii) Tut²ti⁴mah⁴ we returned to Mom's place and told her.'

The employment of panih⁴na⁴ (Example 25') would indicate that the fulfilment of the order to tell Mom (and the actions that followed) were of more importance than the command to go. In addition, the return followed logically from the order to go. In fact, the narrator employed tut²ti⁴mah⁴ (Example 25"). This indicates that the two actions are not weighted for relative importance. In addition, by viewing the relationship between the order and its fulfilment as temporal, the narrator disassociates the two. (A look at the wider context explains why. In

sentence (i), reference to Aunt is fronted (see Example 3), indicating that the narrator's interest was in Aunt and her actions; the fulfilment of the order was therefore only an incidental event, related temporally to the previous one.)

A paragraph may also begin with the combination $\text{panih}^{\text{na}} \text{tut}^2\text{ti}^{\text{mah}}$. This combination indicates three things: the logical relationship between the two actions (panih^{na}), the weighting of the following actions as being of more importance than the ones on which they build ($-\text{na}^{\text{a}}$), and the lapse in time between the actions ($\text{tut}^2\text{ti}^{\text{mah}}$ - see Verbal links Type 2 in Section 1.2).

Example 26.

'Mom said, "Be careful! She told on you."
 $\text{Panih}^{\text{na}} \text{tut}^2\text{ti}^{\text{mah}}$ they ran away.'

2.2 Unweighted Logical Links

Like their verbal equivalents, unweighted logical links based on panih^{a} establish a new point of reference for the action(s) they introduce. They display both of the meanings of panih^{a} already mentioned, i.e., a logical relationship with the previous actions and its function as a pro-verb standing for the whole group of actions in the preceding (often embedded) paragraph. Although by nature they are forms of backreference, the changes in the direction of the discourse that they produce are very minor and correspond rather to a switch of attention, within a larger common whole, than to a radical change in direction.

The same three basic types of link are found with panih^{a} as occur with dependent forms of the verb. These are presented in the following chart.

	Relationship Represented:	Indicated By:
Type 1	Same participant	$\text{panih}^{\text{a}}\text{nit}^{\text{a}}$
	Change of participant	$\text{panih}^{\text{a}}\text{i}^{\text{a}}\text{chah}^{\text{a}}$
Type 2	'while/during all that'	$\text{panih}^{\text{a}}\text{at}^{\text{a}} \text{panih}^2$
	'after all that'	$\text{panih}^{\text{a}}\text{at}^{\text{a}} \text{tut}^2\text{ti}^{\text{mah}}$
Type 3	logical, but otherwise nonspecific	panih^{a}

Chart 5.

Type 1 logical links, like their temporal counterparts, indicate a close association between the actions linked, such as a stimulus and its direct response (Examples 27, 28 below). The 'same/different' meaning of the suffixes *-nit*/*-V^hchah^h*, when attached to *panih^h*, most commonly has reference to the agent of the actions. In a situation in which more than one active participant is involved, the use of *panih^hnit^h* indicates that the agent of the actions which follow is the same participant as the one who was the agent of the actions of the previous paragraph.

Example 27.

'Nasaria said, "I'm not afraid of Jaime ... He isn't one of them," she said. *Panih^hnit^h* (based on that(SS)) Nasaria came.'

In the same situation, the use of *panih^hi^hchah^h* indicates that the agent of the actions which follow was not the agent of the actions of the previous paragraph.

Example 28.

'Leticia said, "Who was it that arrived? ... Was it Jaime?" she said to Mom. *Panih^hi^hchah^h* (based on that(DS)) Mom said, "It isn't Jaime. It's the police."

However, in a situation in which only one active participant is involved, the use of *panih^hi^hchah^h* indicates that some other change of participants occurs. For instance, in Example 29 below, the agent is the same in each sentence, however, each goal participant is different. Consequently, the linking element indicates 'change of participant involved'.

Example 29.

'They gave bedspread material to one white woman. *Panih^hi^hchah^h* they gave a blanket to the other white woman. *Panih^hi^hchah^h* they gave a hammer to me. *Panih^hi^hchah^h* they gave shoes to the children.'

The use of *panih^h* in each of these cases indicates that the relationship between the elements linked is logical in some way. It may be logical in the sense of stimulus-response (Example 27, 28). However, it may be logical merely in the negative sense that it is nontemporal (Example 29 -- the change of participants is what is in focus, and *panih^h* is no more than the appropriate nontemporal morpheme on which to attach such information).

In Type 2 logical links, the nominalized form *panih^hat^h* is the axis of the temporal relator-axis phrase, in which *ponih^h*² 'while/during' and *tut²ti^hmah^h* 'after' are the relators.⁸ The

pro-verb meaning of *panih⁴* is evident at this point; *panih⁴at⁴* can be translated as 'those actions, all that'.

Example 30.

'While I stand up the rafter poles, you all go and cut roofing leaves!', I will say to Juan and Miguel. So I will place poles for the rafters. *Panih⁴at⁴ ponih²* (during those actions), they will cut leaves.'

Example 31.

'They were going into the meeting. *Panih⁴at⁴ tut²ti⁴mah⁴* (after those actions) we went over there to Big Jaime's house. We arrived there and returned. *Panih⁴at⁴ tut²ti⁴mah⁴* (after those actions) "Let's go!" the white women said.'

The Type 3 logical link, *panih⁴*, indicates only that the relationship between paragraphs is logical; it is nonspecific as far as any other relationships are concerned. Used as a link by itself, its function is again a pro-verb carrying a rather vague circumstantial meaning, such as 'stemming from the events in the preceding paragraph, the following took place'.

Example 32.

'From over there by the rock pile three of them (police) came. They came in front of Aquí's house. They put their guns down. They came. *Panih⁴* two of them went on by over to Miguel's house. The other one was behind Mom, hidden, watching her ... He came and questioned Mom about Aquí.'

By far the most frequent use of *panih⁴* is in combination with *pe²a⁴* 'finish', especially in Procedural Discourses, where its effect is to bundle the actions of the preceding part of the procedure into a larger unit. Used in this way it means 'on finishing the group of actions which constituted the previous step'.

Example 33.

'Going early in the morning, getting the outside pole for the blowgun, arriving back, burning it, straightening it, *panih⁴pe²a⁴* (finishing those actions), getting palm leaf spines, bringing them back, taking them (the blowgun and the palm leaf spines), boring out the inside (of the blowgun with the palm leaf spines), boring it out, *panih⁴pe²a⁴* (finishing those actions) looking at the inside of the blowgun, ...'

In nonprocedural texts, the combination of panih^4 and pe^2a^4 is used to refer to the completion of some complex action which took place over a period (span) of time (cf. Section 1.2.1 on pe^2a^4 with span-type actions). In Example 34, for instance, the action of killing the tiger is at once complex (biting him in the heart and all that goes with it) and is viewed as taking a period of time to perform.

Example 34.

'When the tiger ate the man, the turtle came and bit the tiger right in the heart and killed him. $\text{Panih}^4\text{pe}^2\text{a}^4$ (finishing those actions), the turtle went back to tell the dead man's brothers.'

The $\text{panih}^4\text{pe}^2\text{a}^4$ combination may be modified by the same or different participant/role morphemes to indicate the close association of the actions so linked. In Example 35, the action to which panih^4 refers is viewed as complex (closing up the hole and all that goes with it) and as taking a period of time to perform (pe^2a^4). The presence of $-\text{nit}^4$ indicates the close association between the speech and the action; it is as though the speech was all the stimulus needed to perform the action.

Example 35.

'"It isn't closed up," he said. "It lacks being closed up with a stick." $\text{Panih}^4\text{pe}^2\text{a}^4-\text{nit}^4$ (having finished doing that (closing the hole with a stick)), "It lacks being burned," he said.'

2.3 Logical Modifications of Temporal Links

Both the weighted and unweighted logical links are found in combination with temporal links. The combination of $\text{panih}^4\text{na}^4$ and $\text{tat}^2\text{ti}^4\text{mah}^4$ was illustrated in Section 2.1, Example 26; combinations with verbal links are considered in this section.

The purpose of combining a logical link with a dependent verb link is to add logical features, where necessary, to a link whose whole function is to establish a precise point of reference for further actions. The use of $\text{panih}^4\text{na}^4$ adds the 'weighting' factor to the link, so that the actions yet to be described are of more import than those already presented. The combination of panih^4 with a verbal reference to the next action along an expectancy chain enables the new point of reference to include more than a simple action. Attached to a reference back to an action, panih^4 again enables the reference to be wider than the action of the one verb repeated.

Combinations of panih⁴na⁴ and a Type 3 verbal link are found following a digression. The combination indicates both the return from the digression (the presence of the backreference link) and that the actions about to be described are of more importance than those that preceded the digression. In both Example 17 and Example 18 (repeated below), this combination occurs.

Example 17 (verbal link underlined).

'We tracked Aunt Victoria. Lots of blood lay on the leaves.
There was lots of blood. Panih⁴na⁴ tracking, we arrived.'

The arrival, and especially the encounter with Aunt and her subsequent actions (Example 3), was of more importance than the tracking.

Example 18 (verbal link underlined).

'Dad went to Homer's place.'
(The stages of the trip are then described.)
'Panih⁴na⁴ Dad going, arriving, ...'

The incidents that took place following Dad's arrival were of more importance than his journey to Homer's place.

Combinations of panih⁴ and Type 1 (same/different participant) verbal link are illustrated in Examples 36 and 37. The presence of panih⁴ provides a logical dimension to the link between the two actions. In Example 36, the combination indicates that there was a stimulus-response type of close relationship between the action of the plane landing and the handshaking. At the same time, the reference back to the previous action indicates a change in the direction of the story (from concern with the arrival of the airplane to the incidents on the ground).

Example 36.

'The airplane land-arrived. Panih⁴ land-arrived-u⁴chah⁴
(on landing(DS)), I came to shake hands with the people.'

By contrast, Example 37 illustrates the use of a reference to the next action along an expectancy chain to indicate the natural progression of the story. The combination again indicates a close logical relationship between the two actions linked. (See also Example 13.)

Example 37.

'Aquí said, "You all run away out of here!"...
Panih⁴ spank-nit⁴ (on spanking(SS)), he pushed them out.'

The combination of *panih*⁴ and a Type 2 verbal link (to the next action along the expectancy chain), given in Example 38 below, indicates that the actions of the new sentence follow naturally, and logically, from the previous ones. The specific temporal relationship between the actions is also indicated. (Contrast Example 30, in which the logical relationship is not with the placing of the poles for the rafters but with the previous request.)

Example 38.

'Seeing that it was hot, I took it and set it in front of Dad and the others. *Panih*⁴ they eat-at⁴ *ponih*² (during their meal), the *farña* swelled.'

The combination of *panih*⁴ and a Type 3 verbal link is comparable to the use of *panih*⁴ alone (cf. Example 32 above). *Panih*⁴ by itself is the equivalent of a Type 3 verbal link expressing succession, and it functions as a pro-verb for the previous embedded paragraph. The combination of *panih*⁴ and a Type 3 verbal link expresses overlap, *panih*⁴ standing for the actions that went along with the backreference. In Example 39 below, for instance, the combination of *panih*⁴ and the verb 'going' represents 'going in that way', i.e., 'going tracking'. (As usual, the use of reference back to the previous action indicates a change in the direction of the story.)

Example 39.

'The turtle went and tracked again. *Panih*⁴ going, the deer met him.'

Example 40 illustrates the combination of *panih*⁴ and a Type 3 verbal link modified by *pe*²*a*⁴. *Panih*⁴ here stands for the set of actions that went along with the killing of the paca, while *pe*²*a*⁴ indicates that the killing of the paca took place over a space of time ('having finally killed it in that way'). The repetition of reference to the killing indicates a change in the direction of the story which is the resumption of the journey after the interruption of meeting the paca.

Example 40.

'They met a paca. He caught it with the yuca squeezer and killed it. *Panih*⁴ kill-*pe*²*a*⁴, they went on upstream.'

2.4 Nominalized Links Based on *panih*⁴

Two nominalized links are formed from *panih*⁴ and are found providing the linkage between actions. One form, *panih*⁴*at*⁴,

has already been encountered in logical Type 3 links (temporal axis-relator phrase) and is used to refer to previously stated actions. The other form, *panihⁿⁱ*, is used to refer to the agent (or experiencer) of previously stated actions. The rules governing the use of these forms of *panihⁿⁱ*, as far as they have been determined, are described below.

Both the nominalizing 'action' suffix *-at^h*, and the 'actor' suffix *-ni^h* are found attached to individual verbs. Two slightly different meanings are conveyed by *-at^h*: a) it is used to nominalize actions, e.g., *bej^h* 'go', *bej^hat^h* 'departure (the act of going)' and b) it is used to form words for objects used as instruments, e.g., *men³* 'paddle a canoe', *men³at^h* 'a paddle' (lit.: 'that which is used to paddle a canoe'). An agentive meaning is given to a form nominalized by *-ni^h*, e.g., *men³ni^h* 'one who paddles', unless the object suffix *-dih^h* is attached, in which case the experiencer of an action is referred to (see below).

The suffix *-at^h* attached to the pro-verb *panih^h* nominalizes the actions to which *panih^h* refers. It appears as the object of a small set of verbs, such as 'see', 'hear', and 'punish for' (see further discussion below). In Example 14 (repeated below), for instance, 'hearing' provides the verbal link (giving the next step in the expectancy chain of actions from 'said') and *panih^hat^h*, its object, stands for what was heard.

Example 14.

'When the man floated the turtle downstream, "There you will eat fish", the man said. *Panih^hat^h* (all that) hearing, the turtle was eating fish there.'

In Example 41 below *panih^hat^h* refers to the 'bundle' of actions that the turtle did, i.e., his lying in wait for a tapir, his killing of the tapir, and his going and telling the men about it. The verb 'to punish for' normally takes as its indirect object the nominalized form of the action being punished, e.g., 'kill-*at^h* punish for', (lit.: 'punish for (his) killing'). In Example 41, *panih^hat^h* is used as the indirect object of 'punish for', so that the punishment is for the 'bundle' of the turtle's actions.

Example 41.

'The turtle lay in wait on the tapirs' path. When a tapir came, he bit it right in the heart and killed it. Finishing killing it, he went and told the men. *Panih^hat^h* (for all that) the tapirs punished him.'

Both in the above example, and in Example 42, *panih^aat^a* provides the link between the body and the conclusion of a paragraph. In contrast with *panih^ana^a* (cf. Example 22) which is used when the conclusion reached is more important than the actions of the body of the paragraph, *panih^aat^a* is used when the body of the paragraph is the important element. In Example 41 above, the turtle's actions, rather than the punishment he received as a result, are what is important. Likewise, in Example 42, the details of the race are more important than the summary sentence which *panih^aat^a* introduces.

The meaning of *panih^aat^a* in Example 42 is comparable to the 'instrumental' meaning of *-at^a* when it is attached to individual verb stems. It could well be translated 'those actions which are used to accomplish/produce the following action(s)'.

Example 42.

'The turtle and the deer were racing along two parallel paths in the jungle and calling back and forth to see who was ahead. The deer got tired half way to the end and lay down. So, the turtle went on to the end. When the deer finally got there, the turtle was sitting there already. When the deer got there, the turtle taunted him for being so slow. *Panih^aat^a* (by means of all that), the turtle went past him.'

The combination of *panih^a* and *-ni^a* may be translated 'the one who did those actions'. With the object suffix *-dih^a* attached, the meaning of *panih^ani^adih^a* is 'the one to whom those actions were done'. The pro-verb meaning of *panih^a*, as well as its logical or at least nontemporal connotation, is again evident.⁹

Example 43.

'The man's relatives carried the turtle's dead owner back home. *Panih^ani^a* (the ones who did that, i.e., the relatives) didn't give the turtle any food.'

Example 44.

'He went and lay in wait there for the tapirs. *Panih^ani^a-dih^a* (the ones to whom he did that, i.e., those for whom he lay in wait) cracked and killed him. They paid him back.'

2.5 Distinctive Features of Logical Links

The distinctive features of the logical links discussed in the preceding sections correspond closely to those described in

Section 1.3 for the temporal links. The charts below display the distinctive features of corresponding temporal and logical forms.

	+ Temporal	+ Logical/Pro-verb
- New point of reference	tət ² ti ⁴ ma ^h (1.1) (- Weighted)	panih ⁴ na ⁴ (2.1) (+ Weighted)
+ New point of reference	Verbal links (1.2) (- Weighted)	Logical links (2.2) (- Weighted)

Chart 6.

Distinctive Features of Basic
Temporal and Logical Links

Verbal Links (1.2)	- Logical/ pro-verb	Backreference: + New direction to story
		Next expected - New direction action: to story
Unweighted Logical Links (2.2)	+ Logical/ pro-verb	+ Switch of attention in story
Logically Modified Verbal Links (2.3)	+ Logical/ pro-verb	Backreference: + New direction to story
		Next expected - New direction action: to story

Chart 7.

Distinctive Features of Verbal
Links and Logical Equivalents

3. Conclusion

The Cacua system of linking actions or sets of actions functions at two levels: at a higher level where points of reference for following actions are described in extremely precise terms, and at a lower level where actions simply build on each other and assume a previously stated overall point of reference.

At the lower level of linkage, there is a division into temporal and logical relationships. Temporal links are reserved for situations in which the primary nature of the linkage is temporal. A logical connector is employed in all other situations where, for example, the passage of time between, say, the asking of a question and its answer is viewed as only incidental. Sets of actions, such as might be encoded in an embedded paragraph, are linked by means of the logical connector, as are those in which the second action is more important than the first.

At the higher level of linkage, the establishment of a new point of reference requires an indication of whether the following actions change the direction of the discourse (by repetition of reference back to a previous action), or not (by reference to the next action along an expectancy chain). In addition, the existence of a close association, or a specific temporal relationship, or a logical relationship between the actions is stated.

Footnotes

¹Cacua is considered by some (e.g. Mason, 1950:257) to be a member of the Puinave-Macú language family. The language is spoken by an estimated total of 100-150 people living on tributaries of the Vaupés and Papurí rivers in southeastern Colombia.

The basic study for this paper was done on two Cacua texts: 'The Turtle and the Tapir', narrated by Vicente Lopez; and 'The Fight', told by Vicente's son, Emilio Lopez. Their help is greatly appreciated. Additional examples were taken from a collection of Cacua texts which were gathered on field trips between July, 1966 and August, 1969, under the auspices of the Ministerio de Gobierno, División de Asuntos Indígenas, Instituto Lingüístico de Verano. From these texts a concordance compilation was made. The concordance was produced at the University of Oklahoma under the Project for Computer Support of Linguistic Field Work, supported in part by the National Science Foundation grant GS-1605.

²The phonemes of Cacua are as follows:

consonants: b, ɕ, d, g, h, k, p, r, t, w, W, ?.

vowels: a, e, i, o, ɨ.

Prosodies of nasalization and tone (four levels) have as their domain the phonological foot (see Cathcart, forthcoming.)

Examples given in this paper, however, are written in the orthography, which parallels that of Spanish as closely as possible. Orthographic symbols that differ from their phonemic symbols are as follows:

In a nasal phonological foot, /b,d,y/ are written m,n,ñ, and vowels are written V, unless the nasalization is already indicated by the employment of m,n,ñ.

Tones are written using the superscripts at the end of the foot which is their domain: ¹(high:slow downglide), ²(high:fast downglide), ³(mid), ⁴(low).

The phoneme /ɕ/ is written ch, /h/ is written j, and /k/ is written c or qu, following the Spanish alphabet.

The phonemes /w,y/ are written o,i, syllable finally, or preceding glottal stop.

The phoneme /W/ is written jw, and /ʔ/ is written h.

The vowel phoneme /ɨ/ is written u.

³For a definition of Buildup units, and other paragraph elements, see Longacre (1970).

⁴Cf. Waltz, (Volume I), for the same feature in Guanoan (Tucanoan).

⁵Although no example of pe^2a^4 'finish' attached to a Type 2 form of verbal link has been encountered, there is no reason to suppose that this form cannot occur. Examples are found of the nominalizing suffix $-at^4$ being attached to pe^2a^4 , so that a Type 2 link modified by pe^2a^4 would have the form verb stem- $pe^2a^4-at^4$ + Temporal relator 'after the completion of some action'.

⁶An implied reference back to a previously stated action occurs when two successive sets of events are considered by the narrator to be parallel. In such a case, the parallelism in the construction employed provides the link between the two units, and no verbal or other temporal link occurs.

Example.

'Then ($tut^2ti^4mah^4$) Aunt ran away up into Mom's house ...
Aunt ran away up into Dad's house.'

⁷The expression 'between paragraphs' is employed, throughout this section, to include situations in which a $panih^4$ form links an embedded paragraph, which itself encodes the first part of a larger paragraph, to the second part of the same paragraph.

⁸There seems to be no intrinsic reason why $jatih^2$ 'before' could not also occur as the relator in a Type 2 logical link. However, no examples have been encountered employing this form.

⁹The rules governing the use of the nominalized 'actor' forms based on $panih^4$ have not yet been determined.