

**COHESION IN SEPIK INAM**  
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## **Cohesion in Sepik Iwam**

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## 1. Introduction

Sepik Iwam is a Non-Austronesian language of the Birst Stock of the Sepik Sub-Phylum of the Sepik-Ramu Phylum in Papua New Guinea (Laycock 1973:20)

In this paper, part of the set of nonstructural relationships which unite the various discourse constituents into a cohesive whole will be discussed. These relationships taken together are termed cohesion.

Grimes (1976:112 f) considers cohesion to be one of the three basic discourse relationships along with content and staging. For him, cohesion is primarily a relation between new and given information.

Halliday and Hasan consider cohesion to be the 'glue' which forms a group of sentences into a text and thus distinguishes them from a mere collection of sentences.

Cohesion in this study will be a slightly more general concept than either of the above and will follow the approach of Litteral (1980:243ff). Cohesion will include all types of cues which help to unify the discourse components into a whole unit. It will be discussed in terms of phonological, referential and semantic cohesion.

## 2. Phonological Cohesion

There are two basic types of intonation contours dependent and independent. Dependent intonation contours are defined by non-falling or level pitch. This type of contour is associated with items in a list (1) or Non-final clauses (2).

### (1) PROC 03:2

<u>ni</u>	<u>ti</u>	<u>gi-ir-a</u>	<u>nan</u>	<u>ina</u>	<u>haigin</u>
And	day	cl.4-one-f	sago	umm.th.subj	cook
<u>k-wa-wak-in</u>		<u>wraisu,</u>	<u>hu,</u>	<u>hab,</u>	<u>it</u>
p.t-be-daytime-pl.top.p.t		meat	pig	cassowary	crocodile possum
<u>sarae-yin</u>	<u>ni</u>	<u>sasae</u>	<u>ina</u>	<u>y-ingugu</u>	
found-pl.top.p.t	and	vegetables	umm.th.subj	p.t-gather	
<u>hai-yin</u>					
get-p.l.top.p.t					

'Next day they cooked sago, they found meat, pig, cassowary, crocodile, possums and they gathered vegetables.'

(2) DRAM 01:91 si-ya n-it-kiswo, pi y-4i-yin.  
 he-nom pres.indic-come-efc immed.gen.fut p.t-dig-m.sg.top.p.t  
 'If he had come, he would have dug it (the bird nest).!'

These dependent intonation contours define corresponding information blocks and are cohesive in that they signal to the addressee that an information block so marked is closely related to the following information block.

Independent intonation contours (3), (4) are defined by a sustained falling intonation contour symbolized by 1.1. A slightly falling and then rising intonation contour symbolized by 1 ? 1.

and a high falling contour with heavy stress symbolized by 1 ! 1.

Each of these contours is followed by pause. The information blocks defined by these contours are independent in the sense that there are no intonation contours that define a larger information block.

(3) PROC:03:3

ik4 4iy4n han4n dimu-k-4n ? Kiya! S-ir inkam  
 There drum like.this what Hey! he-obl person

inkam - nan ni s-ir yoknan bibiye s=ir  
 person like and.then he-obl sister kingroup he-obl

ad bibiye s4n-ir-4n han-1.  
 father kingroup they-obl-purp beat-n.pst

'What is the (message) of the drum? Hey! The sound/message is for each of his friends, his sisters and his aunts.'

(4) PROC:03:3 Kr4m-a un4r-4n p4 hai  
 He-nom money-pl immed.gen.fut carry  
n-am-i "Kiya!" Dinu-4n hai n-am-i?"  
 pres.indic-go-n.pst Hey! what-purp carry pres.indic-go-n.pst  
 'He will carry money and go. "Hey! Why are (you) carrying it?"

### 5. Referential Cohesion

The three referential cohesive systems in Sepik Iwam are agreement, anaphoric reference, and cataphoric reference. The matter of exophoric (non0textual) reference, though very important, will not be considered in this study.

#### 3.1 Agreement

Internal clause agreement consists of nominal topic and verb agreement in most of the past tenses.

(5) t-a hu-wa inkam-k-4n n4igro-ki-k-a.  
 near.dem-f-f.sg pig-feast person-act-m.sg shoot-displ.result-p.t-f.sg.top.p.  
 'As for t4is pig, a man shot it and it went.'

Noun phrase agreement consists of agreement between demonstrative modifier and head noun, and between numeral modifier and head noun as in (5), (6), (7). There is also optional number-gender agreement between the affix on the numeral and the head noun (8), (9).

(6) inkam nu-4r-4n 4r4m-ni n4igro ao-ki-k-4n.  
 person cl.5-one-m.sg arrow-inst shoot die-displ.res-p.t-m.sg.top.p.t  
inkam nu-4r-4n s-4r.  
 person cl.5-one-m.sg he-3rd

'One man shot another man with an arrow and he died.'

Note in (6) that inkam 'man' is a class 5 noun and so occurs with the numeral prefix nu-. In addition, all nouns are classified masculine or feminine and therefore the numeral is further suffixed with -4n 'masculine singular'.

- (7) wig Ø-ouu-nim bidi y-am-ki-yim  
 woman cl.1-three-pl compl.p.t p.t-go-displ.result-pl.top.p.t

'Three women went.'

- (8) T-i-k-i= inkam m-is-wo bidi y-am-wo  
 near.dem-m-neut-n person cl.5-two-dl have p.t-go-dl.top.p.t

nimau.

jungle

'These two men have gone to the jungle.'

- (9) inkam mw-ir-in nimau n-am-k-in.  
 person cl.5-one.m.sg jungle pres.indic-go-return-m.sg.top.p.t

'One man went to the jungle.'

Tense agreement is expressed through certain verbal affixes or replacing morphemes.

All verb stems beginning with n- in the present indicative have n- replaced by y- in the general past tense and n- replaced by Ø in the specific past tense. When this replacing morpheme n- → y- occurs, the verb is suffixed by the appropriate member of <-a> 'number-gender-- past tense.' The member of <-a> are -i 'masculine singular', -o 'dual', <-a> 'feminine singular', -im 'plural'. These same two changes also occur with all verb stems beginning with n- in the present indicative when these verbs occur in the past completive aspect using the preposed verbal particle bidi 'past tense completive'. (8), (10). For verb stems not beginning with n, the occurrence of bidi 'past completive' also agrees with suffixation by <-a>.

- (10) T-i kam white-kak-im sim-a bidi -am-im  
 near.dem-m man many-have-pl they-nom compl.p.t p.t-go-pl.top.p.t

nimau hu n-it-im.

jungle pig pres.indic-shoot-pl.top.p.t

'Many of the men have gone to the jungle to shoot pigs.'

Another type of internal clause agreement is the gender agreement between a noun phrase or a proper noun and its pronominal copy.

- (11) XYZ 23 Tobi siya 4na kwiya-y4n.  
Tobi he-nom umm.th.subj drink-m.sg.top.pr.t  
 'Tobi is drinking it.'

A type of intra-clause or intra-sentence agreement is the gender agreement between a noun phrase or proper name and the pronoun to which it refers.

- (12) XYZ:5 ha nhinim kinidiniya Bob si-ya yani haiwaoki  
 rep.pres get.up first Bob he-nom outside open  
ano-win ni si-ya hir-ar y-woko idowfi-ya.  
 door-m.sg and he-nom there-only p.t-stand be.outside-f.sg.top.p.t  
 'Having gotten up, first Bob opened the door and went out and stood there outside.'

Discourse tense agreement occurs in procedural discourse. Discounting the discourse aperture and the closing, nearly every verb is in a future tense (13) which is realized by pa 'future' or pi 'immediate general future' and often also by a co-occurring suffix -i 'non-past' on the verb.

(13) PROC 07:1-13

Aperture:

1. niwir mainwo-ni niwi-k-in.  
 sago pound-poss story-be-m.sg.top
2. 41 ga-4r na4owaka niyar pa wark4n-gik-rib-i.  
 day cl.5-one afternoon sago fut roll.up-return-afternoon-n.pst
3. ha wark4n-gik-a pa whon-kao-wi  
 rep.pres roll.up-return-of fut sleep-inside-night
4. 41 ga-4r nugak haka mainwo two-mir-in pa  
 day cl.5-one morning lay.out pound black.palm-part-pl fut  
hai-nani.  
 put-come

5. Ha hai-nani-ya. pa haigfn-i pa kaibi  
rep.pres put-come-n.f fut put-n.pst fut split  
istu-ki pa mairwo-kai.  
stand.up-displ.result fut pound-inside
6. Ha mairwo-kai-ya. pa n-ino-kai-ki  
rep.pr<sup>s</sup> pound-inside-n.f fut pres-indic-wash-inside-displ.result
7. n-ino-kai dig-i ni pa hasni-ki  
pres.indic-wash-inside finish-when and fut scoop-displ.result
8. ni fi gw-ir-a ni - pi kwaigwo hai-i  
and day cl.5-one-f.sg and incept leaf get-n.pst
9. kwaigwo hai dig-i pa n-it-rfb-i  
leaf get finish-when fut pres.indic-come-afternoon-n.pst
10. fi gw-ir-a nan pa haigfn-i  
day cl.5-one-f.sg sago fut boil-n.pst
11. pi haigfn dig-i. ni-pi n-onkwokwo  
immed.gen.fut boil finish-n.pst and-incept pres.indic-divide.out  
hai-gi omaka ir-kak dig.  
put-displ.result house each-have finish

Closure

12. nan haigfn-i niwi-yin htrinan-k-fn.  
sago boil-poss story-m.sg that.all-be-n.sg.top.p.t
13. fi dig y-wo-ki-yin  
ma.th.subj finish p.t-be-displ.result-m.sg.top.p.t

1. 'This is a sago pounding story. 2. One day in the afternoon we will roll up the sago log. 3. Having rolled it up, we will sleep inside (the house). 4. The next day in the morning we get and put the black palm pieces and lay them out to pound (the sago). 5. Having put it, we will put it and split it and stand it up and will pound it inside. 6. Having pounded it inside, we will wash it. 7. When the washing is finished, we will scoop off the water (inside the canoe). 8. Then the next day we will get the leaves. 9. When we finish getting the leaves we will come back in the afternoon. 10. The next day we will boil the sago. 11. When we



finish boiling it we will divide it out and put it each house. 12. That is all of the sage boiling story. 13. It is finished.'

A type of intra clause (in some cases intra-sentence) agreement is the replacement of the unmarked thematic subject marker ina or the marked thematic subject marker ini by ha 'representative person'. Just in case the main verb or a close synonym is repeated. Along with this feature is the adged cohesive feature of the repeated verb (lexical cohesion).

(14) XYZM-5: Ha 'repetitive present' is used instead of ina to mark the thematic subject because the verb stem nhinim 'get up' is repeated.

<u>krim-a</u>	<u>ina</u>	<u>kwa-nhinim.</u>	<u>Ha</u>	<u>nhinim</u>
we-nom	unm.th.subj	nat-set.up	rep.pres	get.up

<u>k4uidiniya</u>	<u>Bob</u>	<u>si-ya</u>	<u>yani</u>	<u>haiwaoki</u>	<u>ano-win</u>	<u>ni</u>	<u>si-ya</u>	<u>hir-ar</u>
first	Bob	he-nom	outside	open	door-m.sg	then	he-nom	there-only

<u>y-wokwo</u>	<u>idw4i-ya</u>
p.t-stand	outside-f.sg

'He got up. Having gotten up, Bob opened the door and went outside first and stood there outside.'

### 3.2 Anaphoric Reference

This type of cohesion involves a form in a text which is consferential with a presupposed term that has occurred previously. Halliday and Hason (329) define the relationship between two such forms as a tie. Ties can be of three types: Immediate (in which the presupposed terms occurs in the immediately preceding clause.) Mediated (in which the preceding clause does not identify the item in question but contains another term that refers to this presupposed item.), or remote (in which the presupposed item does not occur in the clause nor can be reached by a referential chain. On the contrary, a number of clauses have intervened in which no reference is made to this presupposed item by the surface structure forms.

Anaphoric reference occurs in Sepik Iwam in the form of repetition, use of a proform, and by repeated verb (linkage), in which the final clause in one sentence is partially or wholly reverted, or is repeated using a close/synonym.

Repetition occurs when the same lexical form is used to refer to a specific referent in successive grammatical constructions (often sentences). Repetition can be identical (11) ni 'bird' including a demonstrative (11) om 'village' or occurring in a construction with different grammatical forms.

A repetition of verbs may or may not be coreferential. In some cases (13) repeated verbs do not refer to the same event.

(13) XYZ 12:7

<u>Bai-yin</u>	<u>Marilin</u>	<u>sae-yar</u>	<u>y-wo</u>	<u>ni</u>	<u>ha</u>	<u>swok-k-wo-win</u>
First-m.sg	Marilyn	she-only	p.t-be	then	p.t.	again-p.t-stood-m.sg.top.p.t
<u>Tobi</u>	<u>yaka</u>	<u>okwo-kai-na</u>	<u>ni</u>	<u>Bob</u>	<u>si-ya</u>	<u>swok-aka</u>
Tobi	close	stand-inside	then	Bob	he-nom	again-with stood-inside?
<u>ni</u>	<u>ha</u>	<u>swok-k-wo-win</u>	<u>Tom</u>	<u>ni</u>	<u>mhoi-gi</u>	<u>mhoi-ya</u>
Then	p.t.	again-p.t-stood-m.sg.top.p.t	then	later-?	later-f	I-only
			Tom			
<u>y-wo-ki.</u>	<u>irik.</u>					
p.t-be-displ.res	that's.all					

'First only Marilyn went then next Tobi came and stood close then Bob stood next then next was Tom then following last was me only.'

Linkage is fairly frequent in Sepik Iwam contemporary narrative text. It is quite frequent in procedural texts also. Usually the repeated verb will have ha 'repetitive present'.

(14) XYZ 1:4-5

<u>Krim-a</u>	<u>ina</u>	<u>kwa-nhin-im.</u>	<u>Ha</u>	<u>nhin-im</u>
we-nom	unn.th.subj	nar-get.up-pl.top.p.t	rep.pr	get.up-pl.top.p.t
<u>Kimidiniya</u>	<u>Bob</u>	<u>si-ya</u>	<u>yani</u>	<u>haiwao-ki</u>
first	Bob	he-nom	outside	open-displ.result
<u>ano-win</u>	<u>ni</u>	<u>si-ya</u>		
door-m.sg	and	he-nom		
<u>hir-ar</u>	<u>y-wokwo</u>	<u>idwoli-ya</u>		
there.only	p.t-stood	outside-f.sg		

'He got up. Having got up, Bob opened the door and went outside first and stood there.'

(15) XYZ 3:13

M4 sae-ya ina kwa-hai y-ap-nani-yam-a.  
 And she-nom th.subj.gen nar-get p.t-walk-outside-go-f.su.top.p.t  
Ha hai y-ap-nani-yam-a kwidiniya op two-wa  
 rep.pres p.t-walk-outside-go-f.sg. first water black.palm-f.sg  
 get top.p.t  
yapa n-wo-wi-ya  
 outside pres.indic-be-cust-f.sg.top.p.t

'She took it and walked outside. Having walked outside first since the water tank was outside.'

Pro-form may replace a Folk/lexical item in the text for subsequent reference to the same item or event. Pro-forms include pronouns (16), proverbs (17), referential locative (18), and demonstratives (18A).

(16) DRAM 04:2-4

M4-pl kar-ir wig-a makimboptu sa-ir niwi  
 and-incept I-obl woman-f.sg makimboptu she-obl story  
4-ir boin-i sae-ya yinpiugak n-wo-k-a.  
 it-obl tell-n.pst she-nom pregnant pres.indic-be-p.t-f.sg

'I will tell the story of my wife, Makimboptu. She was pregnant.'

(18A) DRAM 01:2

Kam fur mo-is ina y-am-im Marriya. M4 hwr  
 Man ten cl.5-two umn.th.subj p.t-go-pl.top.p.t Marriya and.then there  
yaka fu. Irik.  
 shore go that's.all.

'Twelve men went to Marriya. There they went ashore. That's all.'

(18 B) MORT 03:0053

T-i-k-in-im kam pai-rani. t-i  
 near-dem-n-neut-n-pl man bad-not near.dem-n  
n-i-wo-kai-yalook-im.  
 pres.indic-sit-inside-morning-pl.top.p.t

'These men are not bad. They are sitting inside during the morning.'

The anaphoric demonstrative

hri-yar 'Just like that.'

occurs in texts, usually immediately following the referent.

(19) DRAM 04:6-7

mi sae-ya yinpiugak n-to-wa bi  
and she-nom pregnant pres.indic-be-f.sg.top.p.t neg

n-aokaina-sasau-k-a. Hri-yar  
pres.indic-give.birth-quickly-p.t-f.sg.top like.that-only

y-no-kripkai-ya.

p.t-be-continue-f.sg.top.p.t

'And she was pregnant but didn't give birth quickly. She continued just like that.'

Zero syntactic anaphora, in which there is no free form to specify a previous referent is present but not common in Sepik Iwam discourse. In contemporary narrative text DRAM 04, there are 36 instances of zero syntactic anaphoric in 293 clauses. After the narrator, Joseph, has been introduced in (20), and has been referred to by various types of free pronouns, bound number markers, and the thematic subject marker ina, there is a point late in the narrative in which there is a series of clauses in which he is referred to by zero anaphora: (21) - (25).

(20) DRAM 04:1

kar-a Joseph Moutam-k-in.  
I-nom Joseph Moutam-be-m.sg.top

'I am Joseph Moutam.'

(21) DRAM 04:232-233

Ø P4 hir-ar nink-in o-kao-wi  
immed.gen.fut there-only with-m.sg.top.p.t be-inside.night-n.pst

Makimboptu sa-k-ar  
Makimboptu she-with-only

'I will stay there only inside with Makimboptu during the night.'

(22) DRAM 04:234

Ø hfo tfo -rani.  
 sago.leaves get neg  
 'I will not get sago leaves.'

(23) DRAM 04:235

M4 nabte Ø nkrani. Ø hfo  
 And.then daytime yes sago.leaves  
tfo-kwo-wak-i.

get-underneath-daytime-n.pst

'In the daytime, yes, I will get sago leaves from underneath the trees.'

(24) DRAM 04:236-237

M41 lyte Ø pt sa-ir whin-o-kao-wi.  
 night no immed.gen.fut she-obl help-night-n.pst-be.with.  
 'At night, no. I will help her and be with her at night.'

(25) Ø M41 karamae-k-a  
 work neg-be-f.sg

'I will not do work.'

Another example of zero syntactic anaphora is found in text XYZ, where

krim-a ina  
 we-nom th.subj.gen  
 'We'

has been used to introduce the group in the story referring to all the participants. This group is then referred to by various pronouns and/or the thematic subject marker ina until (26).

(26) XYZ 33:

irik. ina bofnai-yim krim-ir yaj-yim  
 That's.all um.th.subj talk- pl.top.p.t we-obl talk-pl  
hinda mi prfi bofnai prfi bofnai. irik.  
 no.reason and.then nothing talk nothing talk That's.all  
 'We talked and our talk was not about anything. That's all.'

Zero anaphora for locatives is fairly common. This phenomenon occurs when the case frame for a verb has an optional locative but the locative is deleted in the surface clause since the information can be obtained from preceding clause.

(27) DRAM 04:59

<u>h4</u>	<u>an</u>	<u>kiindiniya</u>	<u>op</u>	<u>yan4</u>	<u>uhau</u>	<u>wfu.</u>	<u>!hau</u>
And.then	I	first	water	down	bathe	go	Bathe
<u>d4g-nani</u>	<u>ina</u>	<u>y-an-in</u>	<u>dikworaekwo</u>	<u>11</u>	<u>hai-gi</u>		
finish-come	unm.th.subj	p.t-go-m.sg.top.p.t	things	up	put-inside		
<u>onaka</u>	<u>hir.</u>						
house	there						

'And then I first went down to the water to bathe. I finished bathing and I came up to the house and put some things there inside.'

#### Clausal Zero Anaphora - IS

Deletion of a verb or a whole clause. This is quite rare, except in conversation.

(28)	<u>kar-a</u>	<u>Ambunti</u>	<u>n-am-i</u>
	I-nom	Ambunti	pres.indic-go-n.pst
(Reply)	<u>kar-a</u>	<u>warwar.</u>	
	I-nom	also-only	

'I am going to Ambunti.' "I am too!";

Anaphoric reference is also found in verb suffix chains. These suffixed pronouns are found in Sepik Iwam verbs in tense only and do not by themselves carry a great referential load. There are usually no more than 2 or 3 suffixes in a clause without a referential assist from a face pronoun or the thematic subject markers ina (unmarked) or ini (marked).

In general it is sentence topic that is referred to by these affixes. Often this is grammatical subject, but sometimes object or Indirect Object.

(29) DRAM 01:93-100

Y4m 4na bo4n-4m. "h4nd-ar T-4 k1-ma1."  
 They th.subj.gen say-pl.top.p.t like-only hear.dem-m.sg boil-in.water  
y4m yh4i-n1 k1-ma1. M4 4n1 s4m-a ham1  
 they dish-with.in boil-in.water And.then th.subj.spec  
s4m-a ham1 ham1-ya hanb4mb4r ae n-am-4m.  
 they-nom half half-? break eat pres.indic-go-pl.top.p.t  
M4 kr4m-a nan karamae-k-4m. 4n1  
 And we-nom sago neg be-pl.top th.subj.spec  
n4nga n4nga y-ae n-am-4m. nom-aka  
 nothing nothing p.t-eat pres.indic-go-pl.top.p.t taro-with  
n4osi n4o-aka y-ae-y4m. M4 4na  
 yam yam-with p.t-eat-pl.top.p.t And.then th.subj.gen  
swok4-bo4n-4m.  
 again-say-pl.top.p.t

'They said, "Boil it like this." They boiled it in a dish. And then they broke them in half and ate them. And we didn't have any sago. We ate taro and yams. And they said again....'

### 3.2. Cataphoric Reference

Cataphoric reference assumes an identification which occurs later in the text. Cataphoric reference is fairly rare in Sepik Iwam texts. It occurs primarily with the cataphoric demonstratives.

T-4 'This (masculine)' and t-a 'that (feminine)'. Actually this item can be cataphoric (30) as an aphoric (31). The titles of discourses often include t4 as a cataphoric referent to the entire discourse (32).

(31) DRAM 04:47

n4-kr4ra n-4nokn4nk4n - tani t-4 d4m4n-4n \*it-4 sa-4r  
 we-are -understand-not this thing- this it-  
n-4dwo-kai omokou-w4n  
 sit-inside block-the.way

'We do not understand this thing which is blocking the way.'

Grammatical cohesion in Sepik Iwam consists of two different phenomena: conjunctions and parallelism.

Conjunctions serve to relate what follows to what has preceded in a given text.

There are two types of grammatical conjunctions in Sepik Iwam: suffixed and free. They encode six basic semantic notions, conditional, adverbative, additive, alternative, cause-result, and summation. Their discourse functions include at least kinds of information and marking of grammatical boundaries. The numbers in parentheses refer to the number of the example which illustrates each use of each conjunction.

Conditional	<u>Free</u>	<u>Bound</u>
	_____	(33) <u>-i</u> 'if, when' (34) <u>-kɪswə</u> 'contrary to fact' (35) conditional, if'
Adversative	(36), (38) <u>mɪ</u> 'but'	(37) <u>-ɪsɪ</u> 'lest' (38) <u>hə pɪ</u> 'would like' (39) <u>-asi</u> 'however'
Additive	(40) <u>mɪ</u> 'and, and then'	
Alternative	(41) <u>ə</u> 'alternative'	-
Cause-Result	-	(42) <u>-asi</u> 'therefore'
Summation	(43), (44), (45), (46) <u>ɪrɪk</u> 'that's all'	



(33) m4 si-ya waka n-4t-441 m4 enaka m4  
 And he-nom tomorrow pres.indic-come-n.p-if then

enaka waka-r m4r4 bwakainae.  
 house tomorrow-only work begin

'If he comes tomorrow, we will begin work on the house.'

(34) DRAW 09:0003

kr4m-a ombud-k-4n n-am-k4swo m4-p4  
 we.pl-nom many-be-m-sg.obj pres.indic-go-cfc we.pl-incept

s-4r p4 y-4t-ki-k-4n-g4k-4n  
 he-obl. Immed.gen.fut p.t-shoot-displ.result-p.t?-hetun .sg.top.p.t

'If many of us would have gone, we would have been able to shoot it.'

(35) DRAW 01:91

si-ya n-4t-k4swo p4 y-44-y4n  
 he-nom pres.indic-come-cfc immed.gen.fut p.t-act-m.sg.top.p.t

'If he comes, we will cut it.'

(36) m4 maeyau kw-4r-a aknan m4 h4sok-4  
 and place cl.4-one-f.sg. picture and.then wash-cast

aka t-a maeyau n44bwomambwo koni-k-a  
 with near.dem-f. place dark big-be-f.sg.

sae-ya nab4e-yar-a-a kr4m-a n-apn4nop-kai-ya  
 she-nom day-only-be-f.sg we.pl.-nom pres.indic-walk-inside-f.sg.top.p.t  
 'One place for washing (developing) pictures was a very dark place, even though it was really daylight and we walked inside.'

(38) kar-a k4r-4r-4n Hauna h4r-4r-4n ha p4  
 I-nom you.sg-obl-obj Hauna there-obl-obj permiss immed.gen.fut

y-4krop-k4 m4 om si-ya op-kak-4n  
 p.t-send-displ.result but village he-nom water-have-m.sg.top

'I would like to send you to Hauna, but it has water (flooded).'

(39) FOLK 05

B4i-ya      ninga      ninga      b4      kwiri      n-am-k-in  
before-f.sg    nothing    nothing    not    get.in    pres.indic-go-p.t-pl.top.p.t

hipig      sau-wim      wara      hai-gi      kwiri      Tarinan-in  
arrow      spear-pl      also    put-in.canoe      get.in    now-m.sg

u-ar-a      asi      hai-gi      kwiri      n-am-i  
ate-only-f.sg    however    put-in.canoe    get.in    pres.indic-go-cust

'Before we did not get into our canoes without anything, arrows and spears were also put in the canoe. Now however, we put an axe only in the canoe and go.'

(40) DESC 01:1

m4      kar-a      m4r      n-ap-r4r4r-in      m4      kar-ir  
And I-nom    there    pres.indic-walk-around-m.sg.top.p.t    and.then    I-obl

kw4in-in      4ni      Ukarumpa      s-ir-4m-a  
thinking-m.sg    m.th.subj      Ukarumpa    he-obl-purp-f.sg

y-angwo      t4b4i-ki-yin      om      k4bie-k-in  
p.t-think    believe-displ.result-m.sg.top.p.t      good-be-m.sg  
village

'And I walked around there at Ukarumpa and my thoughts about it were very good towards that village.'

(41) si-ya      p4      aum-a      n-asi      am-i      o  
he-nom    immed.gen.fut    aum-loc    pres.indic-or    go-n.pst    or

tauri-ya      n-asi      am-i  
tauri-loc    pres.indic-or    go-n.pst.

'He will go to Aum or he will go to Tauri.'

(42) FOLK 06:0384

m4      si-ya      wakas-ki      s-ir      yaowae-yin      b4di  
and he-nom    hear-displ.result    he-obl    older.brother-m.sg    compl.p.t.

yao-win      m4      si-ya      asi      n-4t-k-in  
die-m.sg.top.p.t    and he-nom    therefore    pres.indic-come-return-m.sg.top.p.t

'He heard that his older brother had died completely and therefore he came.'

The .....tion particle irik 'that's all' occurs at the end of an episode in a narrative. That is, it occurs at the end of a minor episode in the narrative (43), following some quotes (44), following an exciting episode in a narrative (45), and following a prayer (46).

(43) DRAM 01:2

kam fur nu-4s ina y-an-in Warwi-ya at  
 went ten cl.5-two unkn.th.subj p.t-go-pl.top.p.t Warwi-f.sg and  
hir yaku iu . irik.  
 there go.ashore go That's.all.

'Twelve men went to Warwi and went ashore there. That's all.'

(44) DRAM 01:8

hi ina boin-ki irik.  
 And unkn.th.subj said-displ.result That's.all  
 'And he said, that. That's all.'

(45) DRAM 01:29

Kar-ir kwain-in hik irik.  
 I-obl thoughts-m.sg thrilled That's. all.  
 'My thinking was thrilled (my heart was thrilled). That's all.'

(46) DRAM 01:35

Kar-a nhro ina kwis-ki adi komi s-in-in  
 I-nom eye unkn.th.subj close Father big he  
sr4i-ki irik.  
 ask That's.all.

'I closed my eyes and asked the Big Father. That's all.'

#### 4. Lexical Cohesion

Lexical cohesion involves the use of lexical items as a means of connecting portions of a discourse. This type of cohesion will be termed specific if the lexical items are coreferential and general if they are not.

Lexical cohesion can be by common semantic domain, by collocation, or by cycling.

##### 4.1 Common Semantic Domain

Coreferential repetition has been mentioned under grammatical cohesion in Section 3.2, anaphoric reference. Synonymy is very infrequent in discourse of any type. (47) comes from an expository text.

(47) EXPS 03:p.1

Krim-a      t-i      om-im      ini      numir-nan  
we-nom      near.dem-m      village-pl      m.th.subj      garden-like

y-wo-wim.

p.t-be-pl.top.p.t

'We people of these villages are like gardens. (I.E. We have had the seed of God's word planted in us and are bearing fruit).'

Coreferential lexical cohesion using two terms on different levels of the semantic hierarchy occurs in discourse but is limited to a small set of terms such as inkam 'person' kam 'man' wig 'woman' yinisim 'child' yinkamiyin 'son' yinugiyin 'daughter'

(47) EXPS03:0005      Mi      inkam      paenit      yai      boin-mamaui      ti  
and person seed talk tell-explain near-dem-m

kam-im      yai      kig      boin-mauu      Adi      Komi      s-ir      yai      a-ir  
man-pl      talk paddle tell-explain Father Big he-obl      talk she-obl

'And a person who tells out the seed (God's talk). These men paddle and tell out the Big Father's talk.'

(47A) PROC 03:0270

Kir-a      inkam-in      pi      hai-gi      ikou.  
you-nom      person-m.sg      immed.gen.fut      put-inside      block

Kiya!      pi      kam      m4iy4k      n-wo-rani  
Eh!      immed.gen.fut      man      good      pres.indic-be-not

'If you are a person who blocks the way. Eh! This man is not good.'

Coreferential lexical cohesion involving two terms on different levels is relatively rare. One example is (48)

(48) Elicited. Krim-a Warri n-am-i T-a whfi-ya  
 We-nom Warri pres.indic-go-n.pst near.dem-f.sg lake-f.sg

hu-ni whfi-g-a  
 pig-poss lake-be-f.sg

'He went to Warri. This lake is a lake for pigs.'

Different reference with lexical items from the same semantic level is another type of lexical reference. The cohesion can be based on items with opposite meaning (antonyms) or on some shared semantic feature.

Antonyms occur primarily in FOLK Tales and Expository texts.

(49) FOLK 04:0286

Houmousta-a yinkamiyin yawae-ya yinugiyin kigok warfi  
 younger-f.sg boy older-f.sg girl look.good grow

m y-okwo-ki  
 p.t-stand.up-displ.result

'Look good to see if the younger sisters boy and the older sister's girl grow up good.'

(50) EXPOS 02:0198

Mi sa-ir nid wadie o biye Mi t-i  
 And.then it-obl decide good or bad And near.dem-m

dikuorackro nu tir-an-im  
 things ground here-?-pl

'Decide what are the bad things and what are the good things of the ground here.'

For lexical cohesion involving shared semantic features is quite common in Sepik Iwam discourse.

(51) went upstream, looked (at hooks), went upstream, caught (fish)

(51) DRAM 09:6

hak dig-i-yar kar-a op ina whau n-am-a  
 pull finish-1-only I-nom water unnm.th.subj bathe pres.indic-go-f.sg.top.p.t  
mi ina swokt di n-am sir kig  
 and.then unnm.th.subj again upstream pres.indic-go hook look  
di n-am anasu wh-is-a ki-kai  
 upstream prcs.indic-go catfusg ck,2-two-f catch-inside  
 'I finished pulling out the grass, bathed, went and returned upstream  
 and looked at the hooks going upstream and caught two catfish and put them  
 in the canoe.'

(52) DRAM 09:11 mi kar-a t-ik-i anasu iriyar  
 And.then I-nom near.dem-un.neut-m fish five

wh-is-o hfi hfr inf hai-gi hai-gi pae  
 cl.3-two-dl bed there there.then put-inside put-inside fire  
ina y-amgin ina y-ankai-i-4im mi ina  
 unnm.th.subj p.t-light unnm.th.subj p.t-smoke-cust-pl.obj and.then unnm.th.subj  
kp4t-a yarmi-ya  
 turn.over-f.sg.top.p.t side-f.sg  
 'I put these seven fish on the table, made a fire, smoked them and turned  
 them over on their side.'

This type of cohesion is a means of stating a discourse theme, as in  
 Text DRAM 04 about a woman who was very sick in child birth.

vinpiygak 'pregnant' yigus 'born, give birth' miyik 'not good'

Different reference with lexical items from different levels in the  
 semantic hierarchy is fairly common in Sepik Iwam discourse. Often the most  
 general term occurs first.

(53) DRAM 04:51 ina y-am-in dikworaekw. li hai-gi  
 unnm.th.subj p.t-go-m.sg.top.p.t things Up put-inside  
omaka hfr. mi ha n-am-a 4dwo-kai-k-in  
 house there And rep.pr pres.indic-go-n.fin sit-inside-p.t-m.sg.top.p.t

m4 sae-ya ka-boin.

and.then she-nom nar-said

'He went up to the house there to put some things inside. And having gone he sat down inside and she said,

(54) PRAY 01:0054

Krim-ir norivau na-is-o Stephen so-wa Philip  
our-obl brother cl.5-two-dl Stephen they.two-nom Philip

oun mr n-wo-wo

Oun there pres.indic-be-dl.top.p.t

'Out two brothers, Stephen and Philip, are there at Oun.'

(54A) FOLK 01:0088

t-a 4niy4b-k-a t-a n-to-wi-a  
near.dem-f sugar-be-f.sg near.dem-f pres.indic-be-m.sg.top.p.t-rel

yinh4e-kak-a n-to-wi inkam-in kopak s4m  
family-hare-f.sg pres-be-n.pst person-m.sg teenage.girl dim

yainan s4m-k-in wa d-ae  
teenage.boy dim-be.m.sg.top.p.t fut.after.today imp=eat

'This sugar is there and a person who has a family, a teenage girl and teenage boy can eat.'

## 4.2 Lexical Collocation

Lexical collocation is cohesion using words that regularly co-occur (Halliday:Hasan 1976:284). This collocation can consist of objects, objects and events, or events only.

Lexical collocation of objects is illustrated by the following nouns and verbs from text PROC 11, a procedural text on fishing.

<u>Nouns</u>		<u>Verbs</u>	
<u>s4r</u>	'hook'	<u>ki-mai</u>	'pull out of water'
<u>hamna</u>	'fish net'	<u>hai-gi</u>	'put in'
<u>y4psu</u>	'name of fish'	<u>borit-mai-i</u>	'tie it on'
<u>hamsu</u>	'name of fish'	<u>n-it-mai</u>	'throw in water'
<u>amwao</u>	'float'	<u>k4g-i</u>	'look'
<u>haiqu</u>	'trap'	<u>n-ae-ya</u>	'eat'
<u>anasu</u>	'catfish'	<u>n4n-i</u>	'leave'
<u>opsu</u>	'fish name'	<u>t4o-nani</u>	'return-come'
<u>T4diy4u</u>	'spear'	<u>hai-gi-y4u-nani</u>	
<u>numapiy4n</u>	'worm'	<u>n-am-yakwok-i-y4m</u>	'go in morning'
<u>nhid-nit</u>	'seed'	<u>kr4ni</u>	'shoot'
<u>yab</u>	'river'	<u>kr4s</u>	'put on hook'
<u>Tom</u>	'name of fish'	<u>n-ae-i-k-a</u>	'cat'
		<u>nad4ni-y4m</u>	'come upstream'

One common type of lexical collocation in Sepik Iwam is the type resulting from a sequence of events called an expectancy chain (Longacre 1972).

The following chain is from Text PROC 1<sup>9</sup>, a procedural text on fishing: h4igini 'catch', n4ow4 h4iya 'make rack' nankafi 'smoke'.

#### 4.3 Sample Text

A short portion of a text illustrating some of the types of cohesion follows:

The text is given in the left hand column with a morpheme by morpheme translation underneath. On the right are the same specific types of cohesion.

Phonological cohesion is specified only by means of the orthographic symbols for the intonation contours.

In the right hand column the types of cohesion are listed for each clause. The relevant affix, word or clause number is given in parenthesis.

Abbreviations are as follows:

An anaphoric reference using 4na/4ni.

ZA zero ana

Col lexical collocation

Link linkage

Pro pronominalization

Rep repetition

Par parallelism

SG Specific-general

Sem Dom Same Semantic column



For example, in clause 3 ZA (yaowae) indicates zero anaphora with respect to the term yaowae 'older brother', which appears in clause 2 but is replaced by zero in clause 3. Similarly Link (kanau-win) refers to the linkage or repeated verb (kanau-win), which in clause 3 is repeated after appearing in clause 2. In clause 4, An (ina) indicates an anaphoric reference to the last prominent referent, which is yaowae 'older brother' in clause 2.

FOLK 06:P.5

1. 41-ya      ha      pirkin-ki-yakok-a.

day-f.sg    p.t    damn-displ.result-morning-f.sg.top.p.t

'The day damned.'

2. Yaowae      ina      kanau-win

older.brother    umm.th.subj    hide.hunt-m.sg.top.p.t

'The older brother hid, hunting (for birds).'

3. Ha      kanau-win,

rep.pres    hide.hunt-m.sg.top.p.t

'Having hunted,

ZA (yaowae)

Link (kanau-win)

4. ina      kiq-in

umm.th.subj    see-m.sg.top.p.t

imaba

dove

paekoro

leaf pres.indic-cat-p.t.f.sg.top.p.t

ZA (yaowae)

An (ina)

'He saw a dove eating a leaf.'

5. Ha      kor-am-in

p.t    start-go-m.sg.top.p.t

'He started to go.'

ZA (yaowae)

6. ina      yaka      igrie-ki-yin.

umm.th.subj up    shoot-displ.result-m.sg.top.p.t    That's.all.

irik.

ZA (yaowae)

An (ina)

'(and) he shot upward. That's all. (It hit the bird).'

7. 4ni kikid-kak-a hai sinam-a  
m.th.subj arrow take.carry fly-f.sg.top.p.t

An (4ni)

ZA (4nnaba)

'It flew carrying the arrow.'

Col (4grto 'shoot')

(kikid 'arrow')

8. 4ni t-4-k-4 nomousim-in  
m.th.subj near.dem-m-neut.m younger.brother-m.sg  
s-ir siyu 4-ir-ar swok4-hai  
he-obl path it-obl-only again-carry  
sinam-a.  
fly-f.sg.top.p.t

An (4ni)

Rep (hai sinam)

ZA (4nnaba)

Col (nomousim)  
'younger.brother'

(yacae)  
'older.brother'

'It carried (the arrow) and flew following the younger brother's path.'

9. kimidina t-a-k-a waihiya-ya sa-ir  
then near.dem-m-neut-m old.woman she-obl  
hir-ar y-a-n-at-kin-4u.  
there-only p.t-alight-?-sit

ZA (4nnaba)

'Then it alighted and sat there near this old woman.'

10. Ya 4na ungrom kuror hai-gi-ya  
she umm.th.subj break break put-under-f.sg.top.p.t  
sa-ir hamna acwa.  
she-obl fish.net underneath

Pro (ya)

An (4na)

'She broke several of its bones (so it wouldn't fly away) and put it underneath her fishnet.'

11. Sae-ya hamna h4u-k-a.  
she-nom fish.net make-p.t-f.sg.top-p.t

Pro (sae-ya)

Rep (hamna)

'She made the fishnet.'

12. Y4o 4ni nhie 4n-ir-ar s4u Pro (y4o)  
 he m.th.subj blood they-obl-only follow An (4ni)

yokyok-4i-y-am-4n.

go.go-?-p.t-go-m.sg.top.p.t

'He followed the trail of the blood and went a long way.'

13. 4na k4g-fu-w4n ZA (yaowae)  
 umm.th.subj look-go-m.sg.top.p.t An (4na)

'He went and looked.'

14. ae-ya waibiy4e-ya s1-ya bo4n-a. Rep (waibiy4e)  
 she-nom old.woman-f.sg he-nom say-f.sg.top.f.sg Pro (s1ya)

'He told the old woman.'

15. S1-ya 4na 4ni bo4n-fu-w4n Pro (s1ya)  
 he-nom umm.th.subj there.then talk-go-m.sg.top.p.t An (4na)

'He went and talked there, at this time.'

16. kar-a kar-ir 4piy4n a-ir-4n SG (4piy4n)  
 I-nom I-obl bird she-obl-purp

n-4t-k-4n

pres.indic-coma-return-m.sg.top.p.t

'I came for my bird.'

17. Ya 4na bo4n-a Pro (ya)  
 she umm.th.subj say-f.sg.top.p.t An (4na)

'She said.'

18. k4r-ir 4piy4n-a t-a-s1 t4r-ar SG (4piy4n)  
 you-obl bird-f.sg near.dam-f.here here-only

n-no-wa

be

'Your bird is here.'

19. Y4o 4na boin-4n.  
 he unm.th.subj say-m.sg.top.p.t  
 'He said,'

Pro (Y4o)  
 An (4na)

20. waibiy4e, pana k4r-a  
 old.grandmother, now you-nom

Rep (waibiy4e)

kay-1r k4k4d a-1r-ar-a  
 I-poss arrow she-obl-only-?

Rep (k4k4d)

wamf k4yop 4tkiy4u-kf  
 there.above pull.out throw.come.down-displ.result

Rep (4piy4n)

Rep (4piy4n)

4piy4n-a k4r-ar ha hai naowit.  
 bird-f.sg you-only imp take hold

"Old grandmother, now you pull out my arrow and throw it down and as for the bird, you take it."

## 5. Paragraph boundaries and Cohesion

A tentative hypothesis for paragraph boundaries in Sepik Iwam narrative texts has been tested. The hypothesis is that paragraph boundaries occur immediately following those occurrences of 4rik 'that's all, finished' which occur at a point in the text where there are a minimum number of cohesive ties.

When tested for text XYZ, this hypothesis seemed to be confirmed. The episode completion marker 4rik occurred at locations in the text with from zero to 19 cohesive ties. The occurrences of 4rik which coincided with six or fewer cohesive ties were considered to be paragraph boundaries, while those which coincided with nine or more cohesive ties were considered to be marking episodes but not paragraphs.

The two sentences occurring before and after the paragraph boundaries determined by the above criterion are listed below:

XYZ

m4 si-ya hirinan boin-4n. 4rik.  
 and he-nom like.that say-m.sg.top.plt that's.all  
 'And he said it like that. That's all.'

New Paragraph: (across six cohesive ties)

Krín-a ína kwa-nhíním.

we-nom th.subj.gen nar-get.up

'We all got up.'

XYZ 5-6

Ha nhíním kíndiniya Bob si-ya yani haiwoki ano-wín  
rep.pres get.up first Bob he-nom outside open door-m.sg

mí si-ya hír-ar y-wokwó idwí-ya. írik.

and.then he-nom there-only p.t-stand outside-f.sg That's.all

'Having gotten up Bob opened the door and went outside first and stood there.  
That's all.'

New paragraph. (Across two cohesive ties)

Ním krín-a ína kw-apniyam-ín.

we we-nom th.subj.gen nar-walk.out-pl.top.p.t

'He all walked out and went.'

XYZ 40-4k

Mí ha swokí-k-wó-wín Tom si-ya mí ha

And rep.pres again-p.t-stand-m.sg.top.p.t Tom he-nom and.then rep.pres

swokí-k-wó-wín Tobí yaka olowó-káí-na mhoí-gí mhoí-yín  
again-p.t-stand-m.sg.top.p.t close stand-inside? later? later-m.sg  
Tobí

Bob si-yar y-wó-kí. írik.

Bob he-only p.t-be-displ.result That's.all.

'Then next stood Tom and next stood Tobí close inside (in the middle) and  
last followed Bob only. That's all.'

New Paragraph (across five cohesive ties)

ína wok-naní-yín krín-a.

th.subj.gen in.line-come-pl.top.p.t we-nom

'We came walking in a line.'

XYZ 45-46 Since this example is relatively near the end of the text. This

Ha        n-tcho-cho-kai        dig-in.        irik.  
Having    -sit-sit-        finish        That's.all.

Bob    si-ya        boin-in        irik.  
Bob    he-nom        said        That's.all.  
'Having sat down, Bob said, "That's all."'

New paragraph (across cohesive ties)

ini dig    y-wo-ki-yin        t-i    dinfn        krim-a        diriraerar-in  
finish    -be-        this    something    we        did

price-rani.

long-not.

'It is finished. This thing we did was not long.'

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