

SEMANTIC AND GRAMMATICAL STRUCTURES IN AN ISIRAWA NARRATIVE

Toncë Mamnin, Narrator

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1.0 Introduction

The expression of simultaneity of action in Isirawa¹ has presented problems. The nearly inevitable question of an Isirawa speaker, if he is in any doubt at all, is: "What happened first?" And rarely in speech, when he is not in doubt, does he reverse the chronological sequence.

In order to help Toncë Mamnin understand a situation of simultaneous action, the first author draw a picture of a man and a boy looking at a crocodile, and asked him how to say what was happening. The result was, "The man saw the crocodile; the boy saw the crocodile." This is one of the more frequent ways simultaneity is shown in that narration² which has served as the major source of information for the analysis presented in this paper.

It was further explained that "at three o'clock by the watch, at the time the sun was in the sky at such and such an angle (indicated by gesture), the man saw the crocodile"; and "At three o'clock...(by gesture), the boy saw the crocodile." Toncë responded, "The man and the boy saw the crocodile." This, certainly, is one of the less ambiguous ways of showing simultaneous action. Then Toncë was asked about the crocodile's seeing the man and the boy. He thought for a moment, then announced: "The crocodile saw the man out of one eye; with the other eye, it saw the child!"

We see, then, that ways of mapping the chronological simultaneity or sequence (clock time sequence or semantic ordering) onto the grammatical sequence varies from language to language. (Similarly, the degree of tolerance for reversing the chronological sequence also varies from language to language.)

It is obvious from this simple anecdote that there are both cultural and grammatical constraints on the expression of relationships which some people would expect to be simple and universal. Semantic theory must be able to integrate these differences in a coherent theoretical system.

The purpose of this article is to suggest a technology which helps the beginner to approach such cross-cultural differences of language directly and rapidly; but, in addition it presents some important theoretical implications concerning meaning. Specifically, it attempts to affirm and demonstrate through the use of this text that there is a semantic hierarchy with levels of structure, each with its sequence of tagmemes, characterized by functions of slot-role together with their filler classes, and that this hierarchy must be theoretically and practically differentiated from the grammatical hierarchy which also has sequences of tagmemes characterized

by functions of slot-role together with their filler classes. Grammatical meaning is shown in grammatical role (e. g. case on clause level) and grammatical category (e. g. grammatical gender).

It is the theoretical development of the semantic hierarchy, illustrated in some detail, in relation to the accompanying text, which becomes the prime contribution of the paper. It does so, specifically, by showing the non-isomorphism between the constituent structures of the semantic hierarchy and the constituent structures of the grammatical hierarchy; their immediate constituents and the sequences of their parts clash. If the two had been found to share common boundaries for their constituent units, and to share the same ordering of these elements, then only one hierarchy--not two--could be posited (even though it might have two aspects). As it is, the data from the text demand, from our point of view, the acceptance of a semantic hierarchical set of units in sharp theoretical distinction with a set of grammatical units above the sentence.

Much of the present analysis of the semantic structure and of the higher levels of grammatical structure of the text are early (etic) hypotheses as to the nature of those structures. The stability of the analysis of various parts of the systems varies greatly. Some core of the analysis is likely to be quite solid; on the other hand, for other data, the hypotheses must be quite tentative. Such degrees of analytical probability are inevitable, and the analyst cycles through his data using the more solid parts to give clues to the analysis of other parts. Yet the analyst needs to know, however crudely, something of the larger unit within which occur the data of his primary interest. Also he needs to know something of the range of variability of the structures of his postulated norms. Similarly, he needs to know something of the phonological structure of his data (in contrast to its grammatical structure, and in contrast to its semantic structure) before he finalizes any one section. (A paper presenting the early phonological structure of Isirawa by Hiroko Oguri and Carol J. Erickson appeared recently in Irian, Bulletin of Irian Jaya Development, Feb., 1975, Vol IV, No. 1, produced by the Institute for Anthropology, Gendrawasih University, Jayapura, Irian Jaya, Indonesia.)

2.0 The Semantic Hierarchy

2.1 General Statements

In this paper the data selected for discussion of the semantic hierarchy will be restricted to one narrative text. Later treatment may expand this kind of analysis to further narratives and to non-narrative materials.

The semantic hierarchy of a narrative includes that subset of meanings which places pieces of information (see Section 2.4.3 for a discussion on pieces of information) of the narrative in a clock time sequence. It also includes that part of meaning which involves the place of each piece of information relative to its function or purpose in a sequence of purposeful behavior.³ This meaning, which is referred to as semantics, is in contrast to those subsets of meaning-as-impact which are to be found in the phonological and grammatical hierarchies. (Perhaps some

persons might understand us better if we were to say that there is surface versus deep structure in each of the three hierarchies.)

We now describe our usage of the phrase "piece of information": When the outside analyst is trying to discover elements of information from within a speech event, the problem is to find significant elements within an intricate interweaving of many semantic vectors which can only be seen through words in their grammatical settings. The first entrance into this bewildering mass of data requires initial crude (etic) guesses as to meaning. Elements of varying sizes, even when only partially understood, must serve as entrance points into understanding the narrative. In the early stages of understanding, the analyst may "cut out" from the narrative some span of indeterminate length (from morph to episode), which seems to give him insight. Such a span we will call a piece of information; it is etic, not yet emic; an alien's view, not that of the insider, and without determination as to its boundaries or its place in the semantic hierarchy, or its place in the complex set of semantic structural relations. Nevertheless, here we do begin.

That the semantic structure is hierarchical in nature is seen in the closer relation of some pieces of information to each other than any one of them is to any other piece of information. This is analogous to the hierarchical nature of phonological and grammatical structure, with their successively including constituents.

Some semantic constituents have a marginal versus nuclear relationship in that one piece of information is understood by the speaker to be introductory (or else terminal) to another piece of information; the nucleus with its margins would function in a specific kind of semantic sequence (called a vector, below). The information that "a family was called to dinner" is a premargin to the nuclear information that "the family ate dinner." It is in the vector of Providing-sustenance-for-people, because the marginal act depends for its reliance on the purpose of the nuclear act; the "calling" aims toward the family's needs for eating. This relation of the semantic hierarchy to purpose is the crucial insight which opens the door to semantic-clause units with marginal and nuclear propositional relations. Thereby it allows a treatment of the semantics with reference to the wave component of tagmemic theory (including levels of the semantic hierarchy) instead of forcing the semantics of a text to be treated either as a mere adding of information elements (particles) to an inventory, or instead of forcing it to be perceived as a vast, endless non-unitized network of relationships. Tagmemic theory, with its required observer component at all stages (and therefore having its analytical alternative perspectives of particle, wave, and field) can combine insights and can focus on an item separately at will. This is analogous to the marginal-nuclear relationships within the phonological and grammatical hierarchies, and their treatment within the wave perspective.

Then, by analogy with recent tagmemic treatment of paired hierarchies (Pike and Pike, 1974: 31 - 3), the semantic-clause plus semantic-sentence paired level with its propositional content would be paralleled by the semantic-word plus semantic-phrase paired level with its term content (and often as having referential function in relation to things, events, quantities, relations, and the like). The semantic

clause may answer the question "What happened?"; the semantic term may answer the question "What is it?". In this paper, however, no treatment is attempted below (and but little above) the semantic-clause-sentence paired level.

The semantic hierarchy of an individual's language within this theory includes every element--and only those elements--about which he can and does talk. This eliminates from his personal linguistic semantic hierarchy all of his permanently sub-articulate, subconscious perceptions, "knowledge", or beliefs. (These elements are left to be treated by a different discipline.)

The etics of the semantic structure of language is the sum of the semantic structures of all languages of all people.

At least four prime points of reference are relevant for any speech event: (a) the speaker; (b) the addressee; (c) its place in time; and (d) its place in space. These are all identifiable in the Isirawa narration.

The particular presuppositional structure of the language has been verbalized in some fashion (whether in diffuse, vague, extensive dialogue, or in specific labels) at an earlier date by some speaker or speakers of that language. And for any given narrative the presuppositional structure is an unactualized part of any semantic vector which has at least one of its parts actualized in the narrative.

2.2 The Chronological Sequence

The clock time order of information in a narrative we will refer to as the chronological sequence; it is the semantic ordering of information in reference to the wave component of nucleus and margin mentioned above.

The uniqueness and genius of grammar is its mapping, in linear narrative sequence, of the simultaneity and sequentiality of many pieces of information. But languages differ in their ways of mapping chronology onto grammar, and also as to their tolerance for reversing the chronology.

2.3 The Semantic Vector

Granted, now, that a chronological sequence is relevant to our tagmemic view of the semantic hierarchy (as distinct from the grammatical one), we wish to have a term which allows us to refer easily, but tentatively, to socially significant chunks of a larger significant event. A segment of a chronological sequence which we have tentatively (etically) selected as probably social and structurally (emically) relevant to a chronological propositional sequence we will call a semantic vector; the term "vector" emphasizes the dynamic, moving character of such a narrative chunk, in contrast to static or background elements. A semantic vector, therefore, is relevant to levels of the paired semantic hierarchy (see Section 2.1) beginning with the clause and extending upward to higher event levels.

Every piece of information in the chronological sequence is probably either a total semantic vector, or is part of a semantic vector (even as a phone in the phonological hierarchy is a phoneme, or joins adjacent phone(s) to make up one phoneme). A piece of information, however, has at least one other possibility; it may be at the intersection of and be part of many semantic vectors, each of which has its own

multiparameters of contrastive features. This multidimensional system must be vast.

The sum of all the semantic vectors represented in a narrative by an overt form of at least one of its parts is the semantic structure of the narrative. A paradigm of each of those vectors can be elicited from a member of the community in much the same way that a paradigm of a verb, clause, or sentence can be elicited. For example, using as a constant frame the nuclear vector represented by John built himself a house in order to have a place to live, one could place before it the margin John bought lumber and; or John found an acceptable house lot and; or People came to help John when. Note that in order to have a place to live is not itself a semantic vector, but rather the purpose (meaning) component of the form-meaning-composite of which the buying of the house is the form component; only the pairing of the form with the meaning provides the emic vector as a unit of our semantic hierarchy. Similarly, in the margin people came to help John, form is explicit in came, with margin meaning to help.

The specific vector to which any given piece of information in the chronological sequence belongs may vary with the individual; also the status of each piece of information as a fact (emic) varies with the individual. For example, some items in the chronology may be affirmed by every member of the community whereas other items may be affirmed by some and denied by others. Consider an account of a trial of Mr. X for the murder of Mr. Y. It may include the information that Mr. Y died and that his body was found. If everyone affirms the second piece of information, then every one will affirm that Mr. Y died, and each of these two pieces of information is "a fact" for each individual of the community. But if a piece of information, earlier in the chronology, is that Mr. X waylaid Mr. Y, and if that fact is a crucial link to the identity of the killer, then this information will have been affirmed by some members of the community, but denied by others, if Mr. X has also pleaded "not guilty." At this point in time, it is in the accusation vector for each member of the community but it is in the murder vector only of any possible eye witnesses to the killing who believe that the killing was a premeditated act. There are a great many criteria by which members of a culture judge whether a specific piece of information is in any given semantic vector for any given person. In human behavior the probability of the community's making such judgments plays an important part in community behavior and needs to be an overt variable in any linguistic analysis.

2.4 The Data: Toncë's Narration of the Taking of Engarina

Toncë told "The Story of Engarina's Being Taken by a Crocodile" to Carol Erickson. One morning Engarina, who was about ten years old, went with two of her younger brothers to a nearby river to net shrimp from their canoe. By accident she fell overboard, continued netting (standing in the shallow water), and was taken by a huge crocodile. The villagers searched for her body, but only after many hours did they retrieve and bury part of it. A neighbor was accused of having performed witchcraft on the child, and therefore was accused of being the cause of the tragedy. The story ends with his being taken off to jail. Following the end of the story, Toncë

includes in his ending of the narrative event the affirmation that he knows the story to be true.

3.4.1 The Chronological Sequence of the Narrative (at Clause Level of the Semantic Hierarchy)

We now present⁴ in Figure 1, the chronological sequence of the pieces of information in Tonce's narration. We have chosen to start with medium sized chunks or pieces of information at this beginning stage of analysis. We asked the question, "What happened first?". These then are probably at the event level of the semantic hierarchy (comparable to the clause-sentence level in the grammatical hierarchy). Several events or pieces of information which figured together in the chronology are often grouped together, rather than being listed as separate pieces of information.

Certainly at a lower level of the hierarchy, probably term level, is the contrast between the two Engarinas in the story.

Then, a higher level in the hierarchy than event is the vector of Providing-sustenance-for-people in which people eating food would be the nucleus, the premargins of which would be Preparing-food and Gathering-food. A postmargin would be Taking-care-of-remaining-food. This is a hierarchical clustering of events.

There are four columns in the list (which follows) of chronological-grammatical sequences. The first column indicates the etic clock time of the events listed in the fourth column. The second column lists in numerical order the chronological sequence of events. The third column indicates the sentence number(s) in which the event is mentioned in the text at the end of the article.

Etic Time	Chronological Sequence	Grammatical Sequence	Event
Wednesday	C1	G71, 75, 289	Kora bewitches Engarina
Thursday 6:00 A. M.	C2	G13, 16	Two women go to the jungle
11:45 A. M.	C3	G22	Engarina and brothers in canoe, Engarina netting shrimp
12 noon	C4	G23, 24	Deki wants to go home
	C5	G25	Deki paddles fast
	C6	G26 - 28	Engarina loses balance. She and net fall into river
	C7	G29	Engarina continues netting shrimp in the river
	C8	G30 - 32, 35	A crocodile grabs Engarina at her waist and pulls down
	C9	G33 - 35	Deki grabs Engarina's neck and pulls up
	C10	G36, 38	Canoe moves to deeper water, Deki is almost pulled in
	C11	G39	Deki lets go
	C12	G40, 117, 142	Crocodile takes Engarina about noon
	C13	G41 - 42	Boys paddle home, anchor canoe and run to house

Etic Time	Chronological Sequence	Grammatical Sequence	Event
	C14	G43 - 47	People question, boys answer
	C15	G48 - 49, 9 - 11	People cry and run with news, Rewi spreads news
	C16	G1 - 8	Korano and Enus at house making floor, Toncè making window
	C17	G9	People and Toncè hear Rewi
	C18	G12 - 16	They question, "Which Engarina?"
12:20 P. M.	C19	G17 - 20	Rewi joins group, answers question
	C20	G21 - 47	Rewi tells story
12:30 P. M.	C21	G50 - 56	People run to river, Toncè walks with crutches
	C22	G57 - 61	People and parents crying
	C23	G62 - 63	Maria restless
12:35 P. M.	C24	G70 - 75	Maria accuses Kora of witchcraft
	C25	G76	Men prevent Karten from killing Kora
	C26	G77 - 79	Kora goes home
12:40 P. M.	C27	G64 - 65	Kora meets Toncè
	C28	G66 - 68	Kora tells story
	C29	G69	Kora goes home
12:45 P. M.	C30	G80 - 85	Karten grieves
	C31	G86 - 90	Maria asks to be killed
	C32	G91 - 96	People, Korano, and Toncè at parents' house
12:50 P. M.	C33	G97 - 100	Yosep begins to tear up kitchen
	C34	G101	Men can't hold him
	C35	G102 - 103	Yosep tries to kill parents
	C36	G104 - 107	Yosep tries to wreck house
	C37	G108	Men frustrate Yosep's attempt to kill Karten
1:00 P. M.	C38	G109 - 113	Matias and others search for body
1:15 P. M.	C39	G114 - 117	Arrive at Autore, looks like rain
1:25 P. M.	C40	G118 - 119	They start back still looking for the body
1:30 P. M.	C41	G120 - 121	Begins to rain, all get wet
1:35 P. M.	C42	G122 - 123	They see corpse being dragged by crocodile
	C43	G124	Matias says, "There's the corpse."
1:38 P. M.	C44	G125, 130	Crocodile sees them and dives under with the body
	C45	G126 - 127	Matias says, "Let's come back when the rain stops."
1:45 P. M.	C46	G128 - 131	They return to village, answer questions
	C47	G132 - 133	Rain continues until night
2:00 P. M.	C48	G134 - 135	Simson runs with news to Puar
2:15 P. M.	C49	G136	Yusup singing coming downstream in a canoe with his wife
	C50	G137 - 138	Simson claps hands and says, "Who's there?"
	C51	G139	"I'm Yusup."
	C52	G140 - 143	"Don't sing because Engarina's been taken."

Etic Time	Chronological Sequence	Grammatical Sequence	Event
	C53	G144 - 146	"Look for her as you travel."
2:30 P. M.	C54	G147	Kornelia and Yusup plan to search as far as Setema
	C55	G148 - 149	It is almost raining so they pick big leaves
	C56	G150	Kornelia covers baskets
2:35 P. M.	C57	G151 - 154	Kornelia is sick, they travel to Setema in the rain
2:45 P. M.	C58	G155 - 157	They arrive at Yusup's house and light fire
3:15 P. M.	C59	G158 - 160	Kornelia can't sleep, Yusup sleeps
4:00 P. M.	C60	G161 - 163	Kornelia can't sleep, is hungry
	C61	G164 - 166, 180	Kornelia hears water splashing
	C62	G167 - 170	Kornelia prepares vegetables
	C63	G171 - 175	Kornelia walks to door, sees water thrown high
4:10 P. M.	C64	G176 - 180	Kornelia wakes Yusup, tells him about crocodile
	C65	G181 - 184	Yusup wakes up
4:15 P. M.	C66	G185 - 187	Yusup takes spear and goes by himself in the canoe
4:20 P. M.	C67	G188 - 202	Yusup nears mouth of Topate, sees crocodiles eating corpse
	C68	G204 - 206	Yusup doesn't seize the body
	C69	G207	Yusup sees the crocodile that divided the body
	C70	G208 - 209	The crocodile sees Yusup, dives into the water
	C71	G210 - 212	Yusup is afraid
4:45 P. M.	C72	G213 - 214	Yusup returns to his house
5:15 P. M.	C73	G215	They go back to the corpse
	C74	G218	They arrive at mouth of Topati
	C75	G219 - 221	They put the remains into a canoe
	C76	G222 - 224	They meet Pupuari
	C77	G225 - 229	Yusup tells Pupuari to run ahead with the news
	C78	G230 - 234	The people see and hear Pupuari coming with the news
5:30 P. M.	C79	G235 - 238	Pupuari tells Toncë the news
	C80	G239 - 242	The people go to the river
	C81	G243 - 244	The corpse is brought from canoe to the parents' house
	C82	G216 - 229	Kornelia tells Toncë what happened
	C83	G245 - 247	Women returning from getting sago cry
6:00 P. M.	C84	G248	It gets dark, the rain keeps on
	C85	G249 - 252, 254	The coffin is made in the rain
	C86	G256 - 257	The police arrive
	C87	G258 - 260	Patipem tries shooting Karten
	C88	G261a	People grab Patipem
	C89	G261b	Patipem hits Karten
	C90	G262	Karten falls down and is helped up
	C91	G263	All that day and night it rained and people cried
	C92	G255	Everyone sleeps until morning

Etic Time	Chronological Sequence	Grammatical Sequence	Event	
Friday 8:00 A. M.	C93	G264 - 266	The government officers come from Sarmi	
	C94	G267 - 268	The Vice Camat asks the villagers questions	
	C95	G269	They show him where the crocodile grabbed her	
	C96	G270	They show him where Yusup found her	
	C97	G271 - 272	The Vice Camat writes it all down	
	C98	G273	They all return by canoe	
	C99	G274 - 278	The Sarmi people kill a dog and cook it with chicken and vegetables	
	C100	G279 - 280, 253	They bury the little coffin	
	12 noon	C101	G281	The Vice Camat goes home
	2:00 P. M.	C102	G282 - 284	The other Sarmi people eat and go home
C103		G285 - 286	Patipem and Kärarowai sleep in the village	
C104		G287 - 289	Karten gives a report to Patipem accusing Kora	
Saturday 7:00 A. M.	C105	G296	The Korano goes to his garden up the river	
Sunday 6:00 A. M.	C106	G290	A truck comes with two soldiers	
	C107	G291 - 292	They call Kora and take him to jail	
10:00 A. M.	C108	G295, 297 - 298, 301	The Korano goes to find out the truth	
5:00 P. M.	C109	G294, 299	The Korano and Karten have a discussion	
	C110	G300	Karten accuses the Korano of trying to cause trouble	
	C111	G301	The Korano denies it	
	C112	G293, 302 - 304	Kora is still in jail	
	C113	G306 - 308	The Miss asks for a story	
Two months later	C114	G309 - 311	Toncë says to get the taperecorder, he'll tell the story	
	C115	G1 - 305	Toncë tells the story	
	C116	G203	He comments on Yusup's bravery	
	C117	G191, 207	He comments on the crocodile's length	
	C118	G213 - 314	He affirms the story is complete and true	
	C119	G315	He finishes	

FIGURE 1

The List of the Chronological Sequence Correlated with Grammatical Sequence

2.4.2 Semantic Vectors and Slots of the First Fourteen Pieces of Information

In the list below are indicated the semantic vector(s) and the slot in that vector (or each of the vectors) in which a piece of information occurs. We have selected the first fourteen entries from the Chronological Sequence of Figure 1.

- C1 Kora bewitches Engarina { Premar in Accusation vector
Nuc in Bewitching vector

C2	<u>women to jungle</u>	{ Premar in Human-food-gathering vector Premar in Identification vector
C3a	<u>Eng and brothers in canoe</u>	} Nuc in Human-food-gathering vector
C3b	<u>Eng netting shrimp</u>	
C4	<u>Deki wants to go home</u>	Premar in Term-human-food-gathering vector
C5	<u>Deki paddles fast</u>	Nuc in Term-human-food-gathering vector
C6	<u>Eng loses balance; she and net fall into river</u>	{ Counter to Term-human-food-gathering vector Premar in Con-human-food-gathering vector
C7	<u>Eng continues netting shrimp in river</u>	{ Nuc in Con-human-food-gathering vector Premar in Croc-food-gathering vector Premar in Human-tragedy vector
C8	<u>croc grabs Eng at waist and pulls down</u>	{ Inner premar in Croc-food-gathering vector Final mar in Human-food-gathering vector Inner premar in Human-tragedy vector Premar in Contest vector
C9	<u>Deki grabs Eng's neck and pulls up</u>	{ Counter to Croc-food-gathering vector Counter to Human-tragedy vector
C10a	<u>canoe moves to deeper water</u>	} Middle slot in Context vector
C10b	<u>Deki is almost pulled in</u>	
C11	<u>Deki lets go</u>	{ Final slot in Contest vector Inner premar in Human-tragedy vector
C12	<u>croc takes Eng</u>	{ Nuc in Human-tragedy vector Nuc in Croc-food-gathering vector Nuc in premar in Witchcraft-accusation vector Final slot in Bewitching vector (only for some people)

The first clues for identifying the slot and vector of a piece of information are often found in the text itself. This, however, is incomplete and must be supplemented by eliciting information from a language helper. Developing a text avoids some of the hazards of eliciting data out of context. Such text development may be done systematically for all kinds of analyses: for verb analysis, for clause analysis, for morpheme identification, for establishing the chronological sequence, or for identifying a semantic vector. Good eliciting techniques will include observations not only of what the language helper says or does not say, but also of any of his relevant body gestures (which sometimes include the slightest movement of an eye or even of a big toe). Most of these sources have helped in the present analysis.

In the above list there are examples of semantic structures which are of special interest:

1. It would seem probable that in some circumstances only one piece of information can be found filling a single slot in a single semantic vector. There are, probably, two examples which, as a total, occur in one slot in one vector in this narrative: C4 Deki wants to go home and C5 Deki paddles fast. The first occurs in a pre-margin slot in Term-human-food-gathering vector and the second in the nucleus of that vector. It might very well be that in a retelling of the story, especially from Deki's point of view, that his wanting to go home will also be found as part of a Being-ill vector (he didn't feel well so wanted to be at home), or possibly of a pre-margin in a Playing-marbles vector (he wanted to go home to play marbles).

2. Elsewhere in the text, some other piece of information may replace another

piece of information in a slot of a vector, so that the two comprise a semantic filler class of information. C2 women to jungle is in a premargin slot in Human-food-gathering vector in which the nucleus is getting sago. Although getting sago does not appear in the text, it was elicited by asking why the women went to the jungle; everyone in the community knows that when women go to the jungle early in the morning there is a very high probability that they are going for sago to bring back for food; there is no need to mention such common knowledge. C3b Engarina netting shrimp is nucleus of a Human-food-gathering vector for which the premargin would be Engarina and brothers go to the river. We see that going to the jungle and getting sago, and going to the river and netting shrimp are both preargins in a vector of Providing-sustenance-for-people, and hence are both members of the same semantic class (just as the three little cats and those interesting birds are members of a grammatical class of Count Noun Phrase).

3. Two pieces of information may simultaneously fill a single slot in a vector. This is illustrated by C10a and b canoe moves to deeper water and Deki is almost pulled in as filling a middle slot in the Contest vector.

Another example is C8 crocodile grabs Engarina at waist and pulls down and C9 Deki grabs Engarina's neck and pulls up which together fill a premargin slot (followed by at least two more slots in sequence) in the Contest vector. Note, however, that in addition C8 is a part of several other vectors, and C9 is a part of a still different set of vectors.

4. A single piece of information may simultaneously fill the end of one vector and the beginning of another: C6 Engarina loses balance and she and her net fall into river is something of a pivotal event in that it stops her brothers from ending the food gathering and renews the food gathering. It serves as the end of one vector and the beginning of another. It is the bridge by which there is a change from one to another.

5. A single piece of information may be at the intersection of a number of different vector. There are probably seven examples of this, with the most prominent one being C12 crocodile takes Engarina. The nuclei of at least three vectors meet here: Human-tragedy, Croc-food-gathering, and the nucleus of a premargin constituent in the Witchcraft-accusation vector. The bracketing of the slots and vectors in the above list indicates this phenomenon.

Another feature of interest involves C7 Engarina continues netting shrimp in the river. The intersection of two of its vectors sets the circumstances for the beginning of the Human-tragedy vector.

2.4.3 The Relationships of I-Thou-Here-Now

Every speech event which is part of a communicating system has underlying it (whether explicit, or implicit only) four features of prime relationships of that event to its behavioral and physical context: (1) the presence of a speaker (whether or not identified in relation to a specific individual); (2) the presence (immediate or remote) of an addressee; (3) some relation of the speech event to the time of utterance (now), often with further implied or stated relations of a reported

event to time; (4) some relations of the speech event to the place of utterance (here), often with further implied or stated relations of a reported event to place. Often one or more of these are established in the early setting of a narrative. In this particular narrative, however, the last part of it (G306 - 315) is a very important semantic section, since it is here that some of this information is found.

Turning, now, to the narrative under analysis, we look at certain pieces of information within it, in order to find the features of underlying prime relationships mentioned above. Three of the four may be seen at the end of the story.

The first piece of information to occur in this section is af'o 'me'; its referent is Toncö, who later declares himself to be the narrator (G311). The second and third pieces of information both refer to Carol Erickson; she is identified (G306 - 308) as the one who asked Toncö to tell the story of Engarina.

The semantic nucleus of this section is G311a I will tell it to you; in it Toncö declares that he will be the narrator and that Carol will be the addressee. A piece of information that is mentioned by Toncö in G310 concerns the radio. In this text, however, the referent to radio is Carol's taperecorder. The semantic event of getting the radio is part of a taperecording vector, and in this context the "radio" is a secondary addressee.

The place-in-time relationship is established as being between the promise to tell the story (G311) and the finish of the total narration event (G315). Between these two points of reference for time occur the "now" time expressed in G312 This is my story.

In addition to establishing three of the four features of prime language relationships in this part of the narration event, Toncö also assumes the responsibility for the truth of the story in several places: G309 I know it; G311b because I know it; and G313 - 314 It's true.

The fourth feature of the prime relationship of speech (place-in-space) is identified in the first sentence of the narrative: G1 We were there. The referent to there is a place away from Carol's house (where the narration event took place), and actually is more in the center of the village than is Carol's house.

Toncö's narration is a beautiful, coherent semantic whole.

This, then, is a set of observations which point in the direction in which we must go in order to integrate into a coherent theory the problems of meaning, seen through the tagmemic assumption that the semantic hierarchy is not structurally the same as the grammatical one.

3.0 The Grammatical Hierarchy

In this paper we are presenting the grammatical structure of the Isirawa text only very sketchily. It is developed only in that degree of detail which may be sufficient to show the non-isomorphism of the semantic hierarchy and the grammatical one.⁵ Note that grammatical classes differ from semantic classes, that grammatical roles (situational functions) differ from semantic roles (situational functions), and that grammatical sequences are of an entirely different nature from semantic sequences (semantic vectors).

We present, in Figure 2 (see Fold-Out page at rear of this article), the structure of the grammar of the narrative in the form of a tree. Such a diagram is inefficient for many purposes in tagmemics in that it is very redundant (since the same tagmeme, e.g. Subject-as-Actor filled by NP, occurs at any number of places in the tree, whereas in a set of tagmemic formulas it would occur only in a clause root formula where, in addition, the formula would occur only in a clause root formula which would also show other classes which fill that slot). The tree diagram, however, does have the advantage of showing more directly than do the formulas many layers of intermediate constituent relationships which occur within a single discourse. The reader must bear in mind that the present analysis is only in an early stage so that, especially in the higher levels, the hypotheses are very tentative. (Perhaps they might be compared to a phonetic transcription of a preliterate language by someone after a few hours of field work.)

A tagmeme, in Figure 2, is represented by branches and nodes of the tree. The label above a branch represents the slot, the label below the branch, the role; at the node itself is the class of constituent which manifests the tagmeme. More work needs to be done to designate certain subcategories relevant to various filler classes, therefore the category grammatical feature (of a four-cell representation of the tagmeme) has been omitted. (For us, category has to do with agreement constraints at all levels of the hierarchy. For example in English (1) the number of the noun determines the number in the verb, and (2) the gender of the noun root determines the form of the third person singular pronoun in various sentences of the discourse.)

An explanation of the labeling of some classes in the diagram may be helpful. When a low level structure fills a high level slot usually it is manifesting several levels at once. We have chosen to identify (i. e. to label) that structure by the name for its lowest level class (e.g. jump in the English sentence Jump! is simultaneously a sentence, clause, verb, and verb root; we would label it in the diagram as verb root). Since the numbers in Figure 2 refer to sentence numbers in the text, the reader may see, by comparing them, that only one small section of the narrative has been developed down to the smallest grammatical unit, the morpheme.

First of all we want to point out, by reference to the diagram, some of the differences between the grammatical and the semantic structures. Consider the grammatical sentence (G10b) Engarina's been taken by a crocodile and another sentence (G11) She's been taken by a crocodile. The first sentence fills a Nucleus-as-Statement whereas the second fills a Margin-as-Reinforcement. The two sentences are constituents in a sentence cluster. However, the two grammatical sentences are just one piece of information, a single event. That event is not a constituent of a sentence cluster (i. e. of a grammatical unit) but rather is the nucleus of the purposeful (as stated by Isirawa speakers) behavior of the crocodile (which we labelled Crocodile-food-gathering vector) as well as the nucleus of several other semantic vectors already discussed in Section 2.4.2. C12: This gives a sample of the kinds of differences found between the two hierarchies, and points in the direction in which further study must go.

Other interesting features are seen in the diagram. Social interchange is a prominent feature of higher levels of the hierarchy. Challenge-response characterizes the role relationship of a number of constituents, most of which are constituents of an exchange. Usually these constituents are reported monologues (G10-11, 65, 86-87) which include the speech setting (e. g. Rewi called). However, G89-90 (Matiasa, kill me with your spear. Cut me with your machete so I die) is not a reported monologue, but rather is simply a monologue--i. e., without the speech setting. Yet the label for monologue does not appear explicitly at this point on the diagram; the reason is that the notational system (as we indicated above) lists by convention the label for lowest-level constructions of the hierarchy when several levels in a portmanteau class of constructions (across levels, i. e. a portmanteau level) are simultaneously manifested by a single string of words. Here, the term monologue is implicit, by this convention, when the label Imperative Sentence-Cluster⁶ (the lowest level of the portmanteau) is given; the unlabelled higher level is directly deducible from the next highest element of the tree.

Still another class serves as a constituent in an exchange: Reported Action (G88). No word is spoken, however, so it is neither a monologue nor a reported monologue; the narrator merely reports the response (Kostana backed away). It is marginal to the nucleus in which Maria asks Matiasa to kill her. Then, in the next exchange, not even a report of the action is given; the response is entirely missing in the grammar.

Even though the physical response itself is not a part of the grammar, it is in the semantic structure of the narrative in that it is a marginal part of the complex Grieving vector; many parts of the Grieving vector are actualized in the narrative. As a commentary on the absence of a verbal filler of this response slot we later learned from Toncë that Matiasa responded appropriately: he did nothing. (And 'doing nothing' from the speaker's point of view becomes structurally a positive zero, in contrast to overt forms, in a way reminiscent of significant absences of material on the classical lowest levels of grammar.)

The preceding analysis supports our belief that there are several different structural units above sentence.⁷ Certainly the Narration-Margin-as-Closure is a separate grammatical unit which contrasts with that unit which is the Story; it also contrasts with the Story-Margin-as-Closure, and the Story Closure is certainly in contrast with that part of the story which we have called Super Section.

One final point of importance, seen on the diagram: Roles may be doubled up, i. e. two roles may be simultaneously present for a single constituent (portmanteau roles, in contrast to the portmanteau levels referred to earlier). For example, the Reported Monologue of G10-11 has two roles at once--that of response to a former construction, and that of challenge to elicit a further response. (The notation for dual role is a vertical stroke between the two roles, e. g. Response|Challenge.

For G10-11 then, we suggest that Rewi's announcement that Engarina was taken by a crocodile is (in its first role) the response to the challenge of the noise (one calling) that came from the river; simultaneously, in dual function, it was the

challenge that elicited the response shown by the Clause Root 'We felt sad.'

4.0 Mapping of Semantic Ordering

We now summarize our findings with regard to mapping the chronological sequence onto the grammatical sequence. The two sequences are almost isomorphic. In other words there are neither reversals of the chronology, nor "flashbacks", signalled by such devices of relative time as before or after.

The ordinary devices in Isirawa for indicating chronological sequence in the grammar are first of all time words and phrases such as pinio 'morning', sopi ye irowarinämi 'noon', pini 'night', peririnai 'that day', ara 'today', eva 'one day from the present (yesterday or tomorrow)', inasi 'two days from the present', niva 'three days from the present', and pianiva 'four days from the present.' These and a few others are cross referents to verb affixes⁸ such as {ri-} 'inceptive', ari- 'subsequent', {mai-} 'continuous' and ma- 'sequential.' Other useful grammatical devices for indicating the chronology are the verbal affixes of aspect, both time oriented such as {-mi} 'far past complete', {-mai} 'far past incomplete', {-mo} 'yesterday past complete', {-mapi} 'yesterday past incomplete', {-a} 'today complete', {-eto} 'today incomplete', and -Ø 'future incomplete', and non time oriented such as -i 'complete' {-ë} 'incomplete', {-a} 'neg complete', and {-e} 'neg incomplete.'

These, together with the signalling of singular, dual, or plural of subject or of object or of both in a verb root of many verbs, provide an extensive and efficient mechanism for mapping chronology onto the grammar.

An unambiguous marking of chronological sequence can use sikrime 'first' to mark one action which then is followed by a second action marked with ari- 'later (or some equivalent).'

We now present a few exceptions to the isomorphic mapping. The first is by embedded narrative (in contrast with the direct simple narration just discussed). For example, a speaker may talk or think about an action which took place at an earlier time referring backwards to it and thus in effect reversing the chronological sequence. This is done in G13-16 in which Toncë and his companions were wondering which Engarina had been taken. The wondering is marked for far past time (the point of view of the narrator); later on in the narrative the time is identified as being about noon, so with reference to noon, the women's going to the jungle is a reversal of chronology. That is marked merely by the time phrase piniowaiava 'this morning, early.'

If, however, a person is thinking of two actions in the past, we learned that those two need to be in chronological order in reference to each other. Carol asked Toncë to suppose that Hiroko had gone to Amsira that morning and that Philip had gone to Amsira the day before. Toncë invariably reversed the order to 'Philip went to Amsira yesterday; Hiroko went to Amsira this morning.'

Another instance of reversal is in elicited data involving cause-effect. When cause-effect follows the chronological sequence, no markers occur. However, when it

is reversed, the marker pe is used to mark the cause. The unmarked order 'It rained last night. The path is slippery. The child fell down.' contrasts with the marked order: 'The child fell down. Pe (because) the path is slippery. Pe (because) it rained last night.' On the other hand we have one example of marked cause-effect which does follow the chronology. It occurs in an expanded form of the text concerning the women's going to the jungle, because the house was empty (of food), therefore they went to the jungle early in the morning. Further study of such multiple uses of particles is needed, with an attempt to find the subtle contexts in which the differences are appropriate.

There is also an instance in the text which at first seems to be a reversal of chronological order, but which probably is simultaneous action. The English translation given is a good free translation: G37 Deki had to let go. G38 Deki himself was almost pulled in by the crocodile. We at first assumed that Deki let go after he was almost pulled in, but that is not necessarily so; it may mean while he was almost being pulled in, representing simultaneous action. A more morpheme-by-morpheme translation helps to show, G37 Deki began releasing. G38 Deki (object) down-pull-dual object (verb) crocodile this (subject). This means that the crocodile was now pulling down not Engarina only (as is the case in G35b where the verb is marked for singular object), but also Deki as well. The simple change from singular object to dual object in the verb lets everyone know that the crocodile is winning the contest; focus is temporarily on the struggle of both children. While both were struggling, Deki began to let go. It may still be possible that the two sentences are in cause-effect relationship, but until that hypothesis has been fully checked (by testing for the set of paraphrases which can represent the same event), we will continue to hold that it is merely a specially-marked kind of simultaneous action.

This, then, leads us to a general conclusion about mapping simultaneous action onto the grammar. Even though we had seen that a language may tolerate only a very few reversals of the chronological sequence, it nevertheless still seemed to us that every language must certainly have simple, direct means of showing simultaneous action. We therefore were very surprised, indeed, to find that Isirawa has a very low tolerance for simultaneity, along with its low tolerance for chronological reversability. There is only one instance in the whole narrative where we can identify a construction which is marked with any lexical item that can be directly translated roughly as 'while'; it is G48 While crying, they began to run with the news.

In this text, the most unambiguous way of indicating simultaneous action is by using dual or plural subject or object (as was indicated at the beginning of the paper). Once again, for test purposes, Carol elicited a response from Toncë. She tried to indicate that Philip finished making an arrow at the same time John finished making a sago fork. Toncë asked the inevitable question, "Who finished first?". When Carol explained that one couldn't know, Toncë then replied, "First Philip finished an arrow; John later finished a sago fork".

From reactions such as these, we have concluded that Isirawa people are reacting

to the fact that very seldom are two actions absolutely simultaneous: How often would the making of an arrow and a sago fork be started or finished at precisely the same moment? One either begins or finishes before another. Sequentiality is expected and hence is marked as such.

There is a particle porima which seems to mark a time relationship closer than the unambiguous sequence of 'first this was done, then followed...'. Perhaps it might be translated 'until' or 'finally.' It is used in G36 to designate the movement of the canoe into deep water while the crocodile and Deki pulled at Engarina. It is also used in G198 to designate the falling off of part of the corpse while the crocodile was biting at it.

Our hypotheses regarding the mapping up to this point are relatively solid; those which follow are tentative, indeed. The following examples of clause sequences certainly have to do with etic simultaneous action and we note that the verb in each clause usually, but not always, has the same tense-aspect affixes, or the same lack of them. G35 Deki is pulling up and the crocodile is pulling down. Neither of the verbs has any affix at all; they are simply verb roots. In G22 the children are riding in the canoe and Engarina is netting shrimp. The two verbs 'riding' and 'netting' are both in today-past tense. In G9 Toncë and his companions are hearing Rewi calling and are hearing other talking noise from the direction of the river. This is a close-knit cluster of three clauses in which the first two verbs are marked for far-past-incomplete, but the third verb (whose subject is the noun 'speech-or-noise') is simply a verb root--unmarked for either tense or aspect.

A very careful study must be made of clause sequences having to do with etic simultaneous action in contrast to those with etic sequence of actions to see if there is any set of features regarding co-occurrence of affixes and particles which is characteristic of one kind of action versus the other.

This paper, we now both see (from both eyes), presents some of the data we have concerning the mapping of the chronological sequence onto the grammatical sequence, and the resultant hypotheses. A brief final summary: (1) The primary view of time in Isirawa is chronologically ordered. (2) Reversal of the semantic ordering is allowed only under limited conditions. (3) There is only a very narrow world view of simultaneous action--including that which is implied by the crocodile seeing the man with one eye and the boy with the other eye.

1. Ne pua-vase menavro. 2. Korano ma Enusa sao pë-miresësi sao
we there-loc pl, are village leader this Enusa house dl-to place house
- te vo. 3. po-miresë-sänai. 4. Ne po-menavro. 5. E nais pe-praru-mi. 6. E
floor om tr-to place-i we-tr-pl, are I below sg-sit-fpc I
- mana pëma-casru. 7. Kaca warara kawasa ma poë. 8. Ne pe-vase menavro.
this tr-make glass wood tree type this doing we ?-loc pl, are
9. Ne marifa pe-te-mai Rewi me porima-wetai-pai srife nie-se rau. 10. Rewi
we ? pl-hear-fpi Rewi this tr-call-fpc noise there-? talk Rewi
- ne-rau-pai Engarina eriya maiye-vr-u-wa. 11. Eriya maiye-vr-u-wa. 12. Ne
he-talk-fpi Engarina crocodile tr-take-f-tpc crocodile tr-take-f-tpc we

- woikeri waro. 13. Serfiana mam-na-werapoa, Engarina mai, pinio-wai-ava. 14. Eng-
sad ? Serfiana tr-dl-go up Engarina this morning-early-? Eng-
arina Woreo pe-vase ma-rape-nuai-mi. 15. Engarina Woreo ma-vr-u-ani? 16. Petiwefe
arina Woreo ?-loc neg-pl-think-fpc Engarina Woreo neg-take-f-Qm because
peni-cena-werapoa ave cava. 17. Rewi ya maso-rimämi. 18. Warë-ni? 19. Eng-
tr-dl-go up mother with Rewi ? here-come what-Qm Eng-
arina maiye-vr-u-wa nenowe mor-e-na-i. 20. Kartena maseta, Engarina Kalim. 21.
arina tr-take-f-tpc we ask-m-dir-c Karten daughter Engarina Kalim
Eriya ne-vr-u-wa. 22. Nitau vaso, vrërin-o rairai we vruto, Deki ma,
crocodile he-take-f-tpc canoe loc pl,ride-tpc net om work Deki this
Benifasa ma, Engarina. 23. Deki mai aro-pe-raräu-mi, puare-terës sao we ya.
Benifasa this Engarina Deki this frus-sg-talk-fpc begin-pl,go house om ?
24. Mace-raräu-mi mri mace-raräu-mi napni, navsra voefa mase. 25. Nitau afafa
repeat-talk-fpc one repeat-talk-fpc two three ? here canoe fast
cerupä-pi 26. Poarin-cerupä-ë Engarina me pupue-pe-fausa-mi 27.
sg,paddle-fpc begin-sg,paddle-i Engarina this tr-sg-loose balance-fpc
Rairai u we naipe-wänëena-mi. 28. Tivu vase pese mana-pi, tokrime maso,
net land om down-sg,enter-fpc Tivu loc ? sg,fall-fpc until here
apai-so, emusitifa-so. 29. Pe-vase rairai ofe porima-vr-u. 30. Eriya pese
chest-? waist-? ?-loc net ? tr-take-f crocodile ?
sr-u-mi ma-rase wacama vase. 31. Sr-u-mi 32. Eriya naipe-we-ru-mi. 33.
grab-f-fpc here-? waist loc grab-f-fpc croc down-pull-sgo-fpc
Deki me puepim-cokäk-ru. 34. Pueva se sr-u-mi ofi vase. 35. Deki ye
Deki this up-sg,pull-sgo neck ? grab-f-fpc throat loc Deki ?
puepim-cokäk-ru eriya naipën-cokäk-ru. 36. Porima nitau ve pevave noewë-
up-sg,pull-sgo crocodile down-sg,pull-sgo finally canoe om from it there-tr-
pim-tireriowi, oriya ya poe. 37. Deki ye pope-tumo-mi. 38. Deki yo naipim-
move deep ? doing Deki ? begin-release-fpc Deki ? down-sg,
cokäk-äsi, eriya mai. 39. Deki ye Engarina tum. 40. Momoe-pëmä-vr-u-na-i
pull-dlo crocodile this Deki ? Engarina release here-tr-take-f-dir-c
41. Cecevau pën-mërapä-pi nitau vase a-cerupä-pi, u wawai. 42. Peso cän-mërapä
? dl-run-fpc canoe loc dl-paddle-fpc cry for ? dl-run-fpc
-pi sao, no-käusi-na-i nitau ve. 43. Sao warë-ni? 44. Engarina eriya
house there-anchor-dir-c canoe om house what-Qm Engarina croc
maiye-vr-u-wa. 45. Omawa-saro? 46. Niava-soce. 47. Popo-sri niava-soce,
tr-take-f-tpc where-Qm there-? root-real there-?
muiyiye-vr-u-pai. 48. Taka u we, finäva porim-mërisi. 49. Rewi ye pese wetai-
here-take-f-fpi while cry om news tr-pl,run Rewi ? ? call-
pä-pi, mava-pue-fai puaso. 50. :E ye pua-naponëfe pera-pimo-mesine. 51.
there-fpc here-there-to there men ? there-from ?-tr-pl,throng
Mekeri. 52. Puefa sao täte nipamui-mi. 53. :E ye moeri-mamomesi, neni-aso.
wow there house just empty-fpc men ? here-pl,arrive river-?
54. Neni-niavao pe miris-na-mi. 55. E titrariya ve itoti ye tai. 56. E
river-there ? pl,run-dir-fpc I follow ? crutches ? take I

- pese suwe-mi niaso. 57. U we pevau maca-ni. 58. Oma-ro? 59. Engarina
 ? sg,go-fpc there cry om ? cry-pl why-Qm Engarina
eriya maiye-vr-u-wa. 60. U we pevau maca-ni. 61. Maria mai Kartena u
 crocodile tr-take-f-tpc cry om ? cry-pl Maria this Karten cry
we pevau maca-ri. 62. Maria me kamar ai fe aro-rapi kifara-nive. 63. Pai,
 om ? cry-dl Maria this room ? to frus-return enter-? no
moepi-tireritav. 64. Kora mai maso-rimämi. 65. Nona sao we ena-vase e mokän,
 here-return Kora this here-come miss house om front-loc I ask
warë-ni? 66. Afo Maria ne-ruse-ya. 67. E pevave terapa-i. 68. Afo mekeri
 what-Qm me Maria she-talk bad-tpc I from it sg,return-c me bad
ye rau-va. 69. Koro me terän sao, pepe-samru-po-mi. 70. Pe Maria mani,
 ? talk-? Koro this return house ?-stay-?-fpc because Maria said
afo mäma-rau-va. 71. E wo-masëta-i ye mi we rarau-mo, viyesa. 72. Koro
 me tr-talk-? I my-daughter-? ? you om talk-ypc another culture Koro
me terän, pepe-samru-po-mi. 73. Taka pe niase Mari ye mekeri esa mai. 74.
 this return ?-stay-?-fpc while ? there Maria ? bad dance this
Kora päma-savri. 75. Wo-masëta ye pa-ne-rarau-mo viyesa. 76. Kartena
 Kora tr-? my-daughter ? there-he-talk-ypc other culture Karten
mai, Karten pope-nasroa-mi Kora ma novao vo fä-fras-si-yeye. 77. Kora me
 this Karten tr-pl,grab,sgo-fpc Kora this machete om nm-cut-m-? Kora this
pevave terän sao. 78. Pepe-samru-po-mi. 79. Efa sao we ya poe. 80. Kartena
 from it return house ?-stay-?-fpc his house om ? doing Karten
me naife aro-pi-praru-nafe. 81. Pema vaso peve tropusä-mai ofi vaso.
 this down frus-able-sit-? upper chest loc ? grief-fpi throat loc
 82. Rarapona pevo tropusä-mai. 83. Pai. 84. Aro-rapimane tätrosäunai ye. 85.
 heart ? grief-fpi no frus-feeling throat ?
Pai. 86. Pevase Maria mai, Kostana afo po-fanyas-u novao vo, mui-werap.
 no then Maria this Kostano me tr-cut-f machete om here-sg, come up
 87. Afo posi, afo po-posu sapara-osi. 88. Rirarinafe Kostana. 89. Matiasa afo
 me kill me tr-kill arrow-? peer Kostana Matias me
posi, sapara-u. 90. Afo po-fanyas-u novao e pue-keran. 91. Pese mämi. 92.
 kill arrow-with me tr-cut,sgo-f machete I tr-die ? stay
Enä pe käus-mi. 93. Kartena sao we, onä vase pakara wapui. 94. Ne pevau
 front ? lean-fpc Karten house om front loc fence ? we ?
me-te, taka u we pevau maca-ni. 95. :E marari ye sowek, Korano mai, Wakera
 ?-hear while cry om ? cry-pl men everywhere ? all Korano this Wakil
mai, Korano me puese mäma-na-prari-ye. 96. Kartena maica peva manavräu. 97.
 this Korano this there tr-pl-sit-? Karten with ? pl,stay
Titine porimä-vratri-mai. 98. Peti ma Yosep aro-pimä-ne-srowa-i, peti mai pe
 things tr-sg,break-fpi box this Yosep frus-tr-pl-seize-c box this ?
noe-fuvas. 99. Cero-pine-toreru-mai Yosepe, cero-pine-toreru-mai pe se-räsi-mi.
 there-throw ag-tr-try-fpi Yosepe ag-tr-try-fpi ? ag-break-fpc
 100. Dapura mai, meja mai pe se-räsi-mi. 101. Yosepe aro-pimä-ne-srowa-i. 102.
 kitchen this table this ? sg-break-fpc Yosep frus-tr-pl-seize-c

- Sapara pe nakrapese, tavona, novao pe Kartene me peo-fä-frac-i-yeye. 103. Maria
arrow ? seize axe machete ? Karten this ?-nm-sg, cut-m-? Maria
manafo. 104. Tavone täi, sao ma-se-seirie-ye. 105. Tavona maufe, tavona
too axe take house neg-sg-cut-? axe with axe
krapäkrap. 106. Sapare mäufe, sapare krapäkrap. 107. Novao maufe, novao
plunder arrow with arrow plunder machete with machete
krapäkrap. 108. Pesoce Yosep aro-pimä-ne-srowa-i Kartena mave fä-frac-i-yeye.
plunder until Yosep frus-tr-pl-seize-c Karten this nm-sg, cut-m-?
109. U we nitau vase, Matias ma, Isaka ma, Rameka ma, Meki ma atä-vinana-i.
cry om canoe loc Matias this Isak this Lamek this Meki this tr-pl, go-c
110. Manora pe sanyäu-mi, eriya tavona. 111. Mauritä ma momoe-pim-vinana-
spear ? pl, take-fpc crocodile axe Mauritä this here-tr-pl, go-c
i. 112. Vo-vokosai ye. 113. Nitau vase pese vinai-mi. 114. Vivana-mi o
nm-search ? canoe loc ? pl, go-fpc pl, go-fpc until
Autore, pefe arowa. 115. Ai fite titrariya maiyeri. 116. Pu we pe-wave
Autore but didn't find corpse follow is rain om ?-?
- pori-mäsu, mekeri. 117. Sopi ye irowarimämi, pese vr-u-mi, Engarina, eriya.
tr-fall bad sun ? middle ? take-f-fpc Engarina crocodile
118. Nitau vase cena-fivr-u-mi arowa, e fita nie maiyeri. 119. Pese
canoe loc pl-wait, sgo-f-fpc didn't find it corpse there is ?
terisäpä-pi. 120. Topati ani vauri ma-na-vräuna-pai. 121. Pu we pese
pl, return-fpc Topati mouth ? tr-dir-pl, near-fpi rain om ?
carsämi, pu we viso-sri. 122. Pese vinapä-pi Watinwara. 123. Pua-ranavr-
pl, wet rain om big-very ? pl, return-fpc Watinwara tr-pl, see
äuna fite mäma-rusäpoa eriya i. 124. Toferi Matias ani, fite ceri.
corpse tr-sg, pull, sgo crocodile ? near Matias said corpse is
125. Nitau ve toferi marana-pai, naipe-vr-u-mi eri mai. 126. Ata-vr-u-
canoe ? near before-fpi down-take-f-fpc crocodile this tr-take-f-
na-ë Matias ani, pini sa-rekrapua. 127. Pu mani masa-tasine. 128. Pese
dir-i Matias said night tr-seize rain this already-stop ?
vreripa-pi sao. 129. Oma-ro? 130. Nenefive pue-vr-u-wa fita mai. 131.
pl, return-fpc house why-Qm us tr-take-f-tpc corpse this
Omawa puiyiye-vr-u-na-ë. 132. Pu mai mekeri, pämäna pina pe, sä-sräfräve pai.
maybe there-take-f-dir-i rain this bad until night ? nm-break no
133. Pepero pimäni. 134. Simsona me, finäve atä-mira-na-i. 135. Pese mira-mi,
? is Simson this news tr-run-dir-c ? run-fpc
Puar, Cäum ani. 136. Iroroare Yusupa me muirim-riowau-pai, Kornelia. 137.
Puar, Cäum mouth song Yusup this here-sing-fpi Kornelia
Simsona me cane nö-prakrima-na-i. 138. Mi-nane? 139. E Yusupa. 140. Iroroare
Simson this hand sg-clap-dir-c you-who I Yusup song
isimara e pai. 141. Tivu ania se eriya maiye-vr-u-wa Engarina. 142. Sopi
song ? no Tivu mouth loc crocodile tr-take-f-tpc Engarina sun
ye irovaurimämi, pese vr-u-wa. 143. Muiriye-vr-u-pai. 144. Yusupa me, Korneli
? middle ? take-f-tpc here-take-f-fpi Yusup this Korneli

- mai, nitau wau pi-mānānēya-i. 145. Cevau nie-nisi-o fita i ye. 146. Mi
 this canoe with able-dl,ride-c ? there-look-tpc corpse ? ? you
rara-so wa-pi, peso ce-nēnia-pi. 147. Korneli mai, pevau moe-mā-nisi-pai fita
 road-? look-f ? dl-go-fpc Kornelia this ? here-tr-look-fpi corpse
mavai ye, Setema ma-se. 148. Pu we mekeri, pori-masu. 149. Sumero we
 this ? Setema this-loc rain om bad tr-fall leaf kind om
a-tāmos peo-titiruwona-ye. 150. Korneli me puru we peo-titikrima-na-i ye.
 dl-pluck tr-cover,sgo-? Kornelia this basket om tr-cover,plo-dir-c ?
 151. Korneli me sasina. 152. Peso ce-nēnia-pi, Setema, pu we nāmi. 153.
 Kornelia this sick ? dl-go-fpc Setema rain om is
Pu ne ca-kāupā-pi e Fasiofe se. 154. Pese cā-nēnia-pi Setema. 155. Yusupa
 rain they dl-wet-fpc it Fasiofe loc ? dl-go-fpc Setema Yusup
sao we peso peri, arikama. 156. Nitau we no-kāus-na-i kaukauk. 157. Sao
 house om ? is little canoe om dl-anchor-dir-c go up house
vase, anive tup, tarasa mai. 158. Korneli ye nuerau-māmi. 159. Yusupa
 loc fire build under house this Kornelia ? eyes-are Yusupa
me nise momoe-pēma-rana-i. 160. Emāna, Yusupa me nēsamore yof atri. 161.
 this lie here-tr-sleep-c ? Yusup this dream story stay
Korneli nuerau-pemāmi. 162. Fito we pese temosa-mi. 163. Kornelia mai,
 Kornelia eyes-are hungry om ? feel-fpc Kornelia this
pewase māmi. 164. Kornelia mace-te-mi, mri pu pā-tavr-ia-na-mina. 165.
 ? is Kornelia repeat-hear-fpc one water dir-throw-li-there-?
Pu iva pe rarāu-na-mina, BHUAH! 166. Mace-te-mi, napni, navsra o
 water noise ? talk-there-? splash repeat-hear-fpc two three until
mase. 167. Korneli me marape-caurasipā-pi 168. Sosoa ma fafaina ye.
 here Korneli this ?-sg,walk around-fpc vegetables this pick ?
 169. E pome-nesāi. 170. Afo fitompa. 171. Me-caurasi-pai. 172. Maise
 I tr-wrap me hungry ?-sg,walk around-fpi here
poe-rirari-na nunuwera-u pe tavr-ia-na-mi. 173. Poe-rirari-na pu we pese
 tr-peek-there eyes-with ? throw-li-there-fpc tr-peek-there water om ?
pā-piasi-na-mi. 174. Kornelia nuwera we pā-piasi-na-mi. 175.
 dir-throw wide-there-fpc Kornelia eye om dir-throw wide-there-fpc
Pu we warāfri sārāva krāsāpo-mi. 176. Kornelia muipe-mērapā-pi. 177. Yusupa
 water om tree kind leaves touch-fpc Kornelia here-sg,enter-fpc Yusup
me pese nuwi-mi. 178. Yusup, Yusup pue-mawerap. 179. Fite niava reto?
 this ? shake,sgo-fpc Yusup Yusup tr-wake up corpse there Qm
 180. Eriya cevau pu we tavr-ia-no. 181. Yusupe puepe-werapo-mi. 182.
 crocodile ? water om throw-li-tpc Yusup tr-wake up-fpc
Nisa vason-pice, teni me, pese kerarisa-mi. 183. Watowatēna. 184. Naipe-tānēpā-
 lie loc-? foot this ? cramp-fpc numb down-go down-
pi nepara vase, māmāke. 185. Kārawai ye tai, sapara pima-riri ye. 186. Eftava
 fpc bench loc stay spear ? take arrows tr-not take ? alone
naipe-tānēpā-pi, nitau vase. 187. Ni raririya. 188. Nitau vase pesenapi, Topati
 down-go down-fpc canoe loc body compelled canoe loc is Topati

- ani vau mare-mānapā-pai. 189. Ererāfape muirimāne-sānāsupa-ē. 190. Eriya,
 mouth ? tr-come-fpi big thing here-come at-i crocodile
viso-sri. 191. Tokrime maise maso niese niaso eriya arowam-ance. 192. Pewase
 big-very until here here there there crocodile red-it ?
marape-nisi-mai, eriya mai, te mave irēsriyane. 193. Pātāna mave
 ?-see-fpi crocodile this floor this like palm stem this
rēsriyana ufufa mave tāmāsine, māmāriye niene, pevau manavrāu. 194. Fita pe
 like grass this kind each there ? pl,are corpse ?
pā-nane-vrumainape. 195. Yusupa nuerau-wa, cana me porimā-vuakru. 196. Pe
 dir-pl-eat meat Yusup eye-tpc hand this tr-cut,sgo ?
mare-tavr-uo-pa, mrin pinesreus, wina me Yusupa nuerau-wa, pori-mavrau. 197.
 tr-throw-hea-there another grab head this Yusup eye-tpc tr-pull off
Wina me sräf, pe mare-tavr-is-pa mrin pinesreus minama enapari vas, pevau
 head this off ? tr-throw-li-there another grab another mouth ? ?
māmotuse. 198. Pese motusā-mi, porima wisi vase māmā-fanyas-u-wa, fanyak, tene
 cut ? cut-fpc until waist loc tr-cut-f-tpc cut foot
me pai. 199. Patina māmā-ni-pēmari. 200. Aufa mri me pai. 201. Wina
 this no chest tr-body-is upper arm one this no head
mai, mavau pe fanyas-u-mi, fanyak. 202. Ai aiso ni-pi-matamoi tapiri ye se pai,
 this ? ? cut-f-fpc cut ? right body-able-is left ? ? no
cana mai. 203. Yusupa me ėmri sose, sisina. 204. Kā-krapusare masamān.
 hand this Yusup this another ? scared nm-seize didn't
 205. Eri pe masakrerās. 206. Eri perari pe-vase pātāna mave
 crocodile ? pl,afraid crocodile are ?-loc palm stem this
irēsriane, te mave irēsriane. 207. Yusupa, fifiraso-pice, afoare mare-nisi-mai
 like floor this like Yusup fast-? he tr-see-fpi
eri viso pen-po-motusa-mai-na, mase tokrime amomitenaso niese, mana niretonan,
 crocodile big who-tr-cut-fpi-there this until wall there here wallboard
te tokrima niretonaso. 208. Pen-imā-motuse, marape-nisi-mai Yusup nitau we
 floor until wallboard who-tr-cut ?-see-fpi Yusup canoe om
toferi mārānāpa-ē, efoare sāfa porim-tawakru. 209. Peva nai-poe-nakrasupa-pi.
 near come-i he head tr-turn ? down-tr-dive-fpc
 210. Yusupa me sisina ye, pu vase kāvok. 211. :E nauki cavau pipaipe
 Yusup this scared ? water loc in men two ? able
masasi. 212. Efoare mare-toreru, fita me urisai tavr-uo-na-mi, pātintate
 kill he tr-try corpse this land throw-hea-there-fpc chest
mai. 213. Yusupa me cevase pē-terān, Korneli me tai. 214. Wah, fite
 this Yusup this ? tr-sg,return Korneli this take wow corpse
niawa seri! 215. Cevau pē-nēnia-pi peso ce-nēnia-pi. 216. Kornelia pe rarasi-
 there is ? tr-come-fpc ? dl-come-fpc Kornelia ? talk-fpi-
mai-na wanis. 217. Ariye-mor-u-na-pi, wanise pomā-rarasi, oma-raro? 218. Marorēce
 there clear tr-ask-f-there-fpc clear tr-talk what-Qm like
nai-ce-nēnia-ne, Upāvu ani ye nuerau-ri māmaina-pai e pese Yusupa niseno-
 this down-cl-come-? Upāvu mouth ? eye-? almost-fpi I ? Yusup tell-talk-

- raräu-na-i, ani po-mamän-teran-ë, cerice ara pe na-vr-u-po, pätintate ce. 219.
there-c said tr-dl-go home-i ? today ? ?-take-f-Qm chest that
- Pese Yusupa me wo-srifa pimavritowe, ne pë-terän, puaso, ne pätintate pe pi-na-
? Yusup this my-talk agree we tr-go home there we chest ? able-dl-
- kruo-na, cane mämreso. 220. Ai aiso nene-kruo-na, teni e pai, wisi vase
put in-there hand one side ? right dl-put in-there foot ? no waist loc
- fanyas-u-mi. 221. Ne nän-kruo-na-i. 222. Cecevau a-vr-u-pä-pi, ne Upävu
cut-f-fpc we dl-put in-there-c ? dl-take-f-here-fpc we Upävu
- ani vau puar-anämänä Pupuari me. 223. Mi-nani? 224. E Pupuari. 225. Yusupa
mouth ? tr-near Pupuari this you-who I Pupuari Yusup
- me perowa. 226. Nai-mirän. 227. Fita maiye-wa-pi-ye. 228. Nitau wau
this tell down-sg,run corpse tr-see-f-? canoe ?
- mä-vr-u-na-i. 229. Pinai fai pe raräu-na. 230. Taki Pupuari ye cecevau pe
tr-take-f-there-c ocean to ? talk-there then Pupuari ? ? ?
- mira-pä-pi, u wavai. 231. Ne marape-nisi-mai. 232. E nenefi sao vase
sg,run-here-fpc cry ? we tr-look-fpi I our house loc
- sao-sao nue-pemä-mai. 233. E pe naponife pue te, u we porim-maraunapa-ë.
kitchen dir-is-fpi I ? from there hear cry om tr-come out-i.
234. Eni fite maiye-na-wa-pi-ye. 235. Maso rimämi, Pupuari ye. 236. Warë-ni?
said corpse tr-dl-see-f-? here come Pupuari ? what-Qm
237. Fita maroye-vr-u-pai. 238. Engarina, Yusupa maiye-wa-pi-ya. 239. :E ye
corpse tr-take-f-fpi Engarina Yusup tr-see-f-tpc men ?
- muri-mämomesi sowek, sao puefe-mamäna. 240. Tivu ani e momoe-pevri-mi. 241.
here-come all house there-stay Tivu mouth ? tr-crowd-fpc
- Pa-pakräva puece-pakra-mi. 242. Avi, ë, tëra, puece-pakra-mi. 243. U we,
nm-full there-full-fpc women men children there-full-fpc cry om
- nitau so nife, pätintate pe tai, täte sao pune-vr-u-sänai. 244. U we piasa
canoe ? from chest ? take father house tr-take-f-? cry om usual
- cerorife, pe-vase na-näusa-mai. 245. Ariye-na-näusa-mai, ariya-canin u we, mani
like ?-loc pl-cry-fpi tr-pl-cry-fpi tr-cry cry om who
- pim-pue-krana-pai näfa so nife. 246. Pen-nipimafisri, Fransina, avi sowek,
tr-tr-arrive-fpi sago ? from who-come here Fransina women all
- mriave ma-mäna. 247. Piasa cerowa ariye-na-näusa-mi. 248. Pu we pämänapinape
one neg-stay usual like tr-pl-cry-fpc rain om continue
- pini, pe sä-srävräve pai. 249. Peti ye pu peope na-patäusa-mi. 250. Peti ye
night ? nm-break no box ? rain during pl-make-fpc box ?
- susurkanana taiya, apetate perari kanana-pice, pe wine pai amufatate. 251.
childlike short chest is child-? because head no chest
- Pini e pu we pini e käm. 252. Ariye-na-patäusa-mi wewëp. 253. Ai pi-pinio-
night ? rain om night ? stop tr-pl-make-fpc finish ? ?-morning-
- wari päpruo-na-i. 254. Pu we sopi irowas pämänapina, mekeri. 255. Taki, pini
? plant-there-c rain om sun middle continue bad ? night
- mave eritapai, varaf. 256. Nomrirauwa polisi me porim-puekriana-pai, Patipema
this sleep dawn afternoon police this tr-arrive-fpi Patipema

- mai, Kārārowai mai, minam pe inani ye, mantri mai, e wē etatora. 257. Pe
this Kārārowai this another ? who ? medic this I name don't know ?
porim-puekriana-pai. 258. Patipema me, patai ofe Kartena me, sāsenaive, paiyai.
tr-arrive-fpi Patipema this gun ? Karten this point bang
259. Eneno tokrim māvao pe rarau-mi. 260 Paiyai! 261. Popese-srowa-
chin until place under chin ? talk-fpc bang tr-grab-there-
na-i, Patipema, pese pis-e-mi. 262. Karten meopāu, can-afe no-ne-srowa-na-i.
c Patipema ? hit-m-fpc Karten fall hand-with dir-pl-grab-there-c
263. Pini mave ritapai, varaf, pu we maca u we pese cane-mi pini mai. 264.
night this sleep dawn rain om wild cry om ? cry-fpc night this
- Pinio fase pese vāveo-mai Sarme so nifa. 265. Rondapoe pese nia-pi, wakil
morning ? ? gather-fpi Sarmi ? from Rondapoe ? come-fpc vice
camata mai. 266. Rondapoe, pese nia-pi maso. 267. Omawa-saro? 268.
gov't officer this Rondapoe ? come-fpc here where-Qm
- Niava-soce, nia-vase vr-u-mo. 269. Nitau ve kokra, pese vrerina-mi ariye-na-
there-? there-loc take-f-ypc canoe om four ? pl,go-fpc tr-pl-show-
nēraina-pi, peva vā-vr-u-na. 270. Peso pe vrerina-mi puaso, peva vā-vr-u-na
fpc ? nm-take-f-there ? ? pl,go-fpc there ? nm-take-f-
so, Yusupa me peva pātāprutapina mufātate mai. 271. Peso, ariye-wirisi-mi,
there ? Yusup this ? find chest this ? tr-write-fpc
wakil camata mai. 272. Rondopoe mai ariye-wirisi-mi, wewēp. 273. Nitau
vice gov't officer this Rondopoe this tr-write-fpc finish canoe
we nā-kāuwes, kaukau. 274. Pesoce nani mai irime-ne-fanyas-i mri. 275. Ariya-
om pl-anchor climb up ? dog this tr-pl-cut-m one tr-pl-
na-notes, tēra peva muteya amuteu-na-ye, ayama mai, pesoce muteya mai,
cut child ? eat meat eat meat-there-? chicken this ? eat meat this
sosoa mai. 276. Mekeri. 277. Pe sa-puwo-mi wewēp. 278. Nani pe mot,
vegetables this bad ? tr-cook-fpc finish dog ? cut
aifa pu vase pe sa-puwo-mi wewēp. 279. Fita kanane ariye-na-komerusa peti
coconut oil loc ? tr-cook-fpc finish corpse child tr-pl-plant box
vase. 280. Amufatate pe ariye-na-komerusa, pe-naponife teris, sao. 281. Wakil
loc chest ? tr-pl-plant ?-from pl,return house vice
camata mai atā-terana-ē. 282. Ariya-muteu muteiya wewēp, wēiravai
gov't officer this tr-go home-i tr-eat meat eat meat finish gov't officers
ye atā-terāus-ē. 283. Sokani-vinapā-pi warofa-sri Sarme fe periyerimi. 284. Atā-
? tr-pl,go home-i many-pl,go-fpc many-very Sarmi to empty tr-
terāus-ē. 285. Pese Patipema ma, Kārārowai ma, maso cen-ritapa-i. 286. Pini
pl,go home-i ? Patipema this Kārārowai this here dl-cleep-c night
mavo cen-ritapa-i varaf. 287. Pinio fase, rarara mai mama-kifara-no Patipem
here dl-cleep-c dawn morning ? talk this tr-report-tpc Patipem
mavanise, Kartena mai. 288. Oma-ro? 289. Wo-maseta mai Kora me mamo viyesa
clear Karten this why-Qm my-daughter this Kora this ? other
rarāu-mo. 290. Pinio fase, oto me porim-puekrana-pai tentara me
culture talk-ypc morning ? truck this tr-arrive-fpi soldier this

- pe-vase napni. 291. Koro me pese na-werina-mi. 292. Tentara mai tātāfa vase,
?-loc two Koro this ? pl-call,sgo-fpc soldier this mean loc
pupuwavao, pe na-werina-mi nifota-ri. 293. E Kore pe maiyemi puwivao
jail ? pl-bring,sgo-fpc testimony-? he Kore ? is jail
maicemi. 294. Te-terapa-wa-ri-ya, Korano mai cave po-ca-prisru-mi. 295. Korano
? nm-return-see-m-tpc Korano this with tr-dl-discuss-fpc Korano
rarara te-teponai vo suwe-mi. 296. E Tivu ye werapoe, etetore-māne, ne wine
talk nm-clarify om sg,go-fpc he Tivu ? go up not know-? his head
piasa, efa tēra manovasana werina-pi ye. 297. Sarari vaso, rarara enifota i
usual his child ? take,sgo-fpc ? truth loc talk know ?
ye, pēmari-suwen, te-teponai ye. 298. Pēmari-suwen, pe waivo pe suwe-mi. 299.
? must-sg,go nm-clarify ? must-sg,go ? for ? sg,go-fpc
Kartena mai Rumah Pos po-ca-prisru-mi, peririnai. 300. Mi rarara mavao
Karten this meeting house tr-dl-discuss-fpc that day you talk this
kākāu-suwe-warō? 301. Korano mani, pai, e ce nifota i ve suwe-mi, mori-powe.
mix-sg,go-Qm Korano said no I that know ? om sg,go-fpc ?-doing
302. O Kore pe maiyemi puwivao maiyemi. 303. Oma-rifas pi-tireri-ta? 304.
until Kora ? is jail is when-? able-return-Qm
Jayapura ari-weri-ni? 305. E rarara mai, Engarina maiye-vr-u-na. 306. Afo nona
Jayapura tr-bring-Qm it talk this Engarina tr-take-f-dir me miss
ne mor-i-ya. 307. Mi nafota-meto? 308. Mi wanise poma-rarasi, Engarina.
she ask-m-tpc you know-Qm you clear tr-talk Engarina
309. E pese enefotemi. 310. Po-vr-u-na, radio vo. 311. E pue-rarasi,
I ? know tr-take-f-dir tape recorder om I tr-talk
rarara enefotemāki. 312. O mai wo-rarara mai. 313. Naife pai. 314. Puefe
talk know until this my-talk this there no there
pai. 315. Tokrime ceso.
no until there

1. We were there. 2. The Korano and Enus were putting floor boards in place. 3. They put them in place. 4. We were there. 5. I was sitting down below. 6. I was making this. 7. I was making a wood window out of kawasa wood. 8. We were there. 9. We heard Rewi calling and lots of noise coming from the river direction. 10. Rewi said, "Engarina's been taken by a crocodile. 11. She's been taken by a crocodile." 12. We felt sad. 13. Serfiana and Engarina had gone up into the jungle early in the morning. 14. We wondered if it was Engarina Woreo. 15. Was it Engarina Woreo that was taken? 16. She had gone up into the jungle with her mother. 17. Rewi came here. 18. "What's going on? 19. (Which) Engarina was taken by a crocodile?" we asked. 20. "Karten's daughter, Engarina Kalim. 21. A crocodile took her. 22. Engarina, Deki and Benifasa were riding in a canoe while Engarina netted shrimp. 23. Deki tried to talk his sister into going home. 24. He repeated his question once, twice and again a third time. 25. He paddled the canoe real fast. 26. As he paddled, Engarina lost her balance. 27. Her net fell into the water. 28. She fell into the Tivu river, into water up to her waist. 29. She kept on netting shrimp. 30. A crocodile grabbed her here, at the waist. 31.

He grabbed her. 32. The crocodile pulled down. 33. Deki pulled up. 34. He had hold of her neck. 35. Deki was pulling up and the crocodile was pulling down. 36. Finally the canoe drifted out into deeper water. 37. Deki had to let go. 38. Deki himself was almost pulled in by the crocodile. 39. Deki let go of Engarina. 40. She was being taken. 41. They came paddling the canoe crying. 42. They anchored the canoe and ran to the house. 43. The villagers asked, 'What's wrong?' 44. 'Engarina's been taken by a crocodile.' 45. 'Where?' 46. 'Over there. 47. He was dragging her over there by that root.' 48. Crying, people began running with the news." 49. Rewi spread the news this way, to the east. 50. People from there all rushed to the river. 51. Wow! 52. The houses up there were all empty. 53. Lots of people arrived at the river. 54. They ran to the river. 55. I followed after with my crutches. 56. I went there. 57. Everyone was crying. 58. Why? 59. Engarina had been taken by a crocodile. 60. Everyone was crying. 61. Maria and Karten were crying. 62. Being restless, Maria went into her room. 63. She couldn't stay there so came back out. 64. (I met) Kora coming here. 65. In front of the girl's house, I asked him, "What's going on?" 66. "Maria's saying bad things about me. 67. I'm getting away from that talk. 68. She says bad things about me." 69. Kora was going home to his house to stay there. 70. He went because, "Maria said bad things about me." 71. (She said), "You talked to the outsiders (witchcraft) about my daughter." 72. Kora was going home to stay. 73. Because there at the river Maria was very angry. 74. Kora ?. 75. "He talked to the outsiders about my daughter." 76. The men grabbed Karten for he tried to hit Kora with a machete. 77. Kora went home from that. 78. He went to stay. 79. He was going to his house. 80. Karten couldn't sit down. 81. He felt grief in his chest and throat. 82. He felt grief in his heart. 83. No. 84. He couldn't get rid of the lump in his throat. 85. No. 86. Then Maria said, "Kostana, come up here and cut me with the machete. 87. Kill me with your spear." 88. Kostana backed away. 89. "Matiasa, kill me with your spear. 90. Cut me with your machete so I die." 91. I was there. 92. I was leaning there. 93. I was in front of Karten's house, by the fence. 94. We could hear people crying. 95. Everyone including the Korano and the vice Korano sat down. 96. They stayed with Karten. 97. He started breaking (Engarina's) things. 98. Joseph attempted to grab a box and throw it out. 99. Joseph began to try to break things. 100. He wrecked the kitchen and the table. 101. Joseph couldn't be held down. 102. He seized an arrow, an axe, and a machete and tried to kill Karten. 103. He tried to kill Maria too. 104. He took an axe but couldn't chop the house down. 106. He plundered with a spear. 105. He plundered with an axe. 107. He plundered with a machete. 108. They couldn't restrain Joseph from trying to cut Karten. 109. There was crying from the canoe as Matias, Isak, Ramek, and Meki left. 110. They took along a spear and a crocodile axe. 111. Mauritä went along too. 112. They searched. 113. They went in the canoe. 114. They went as far as Autore but didn't find anything. 115. Maybe the corpse was behind them. 116. A heavy rain began to fall. 117. Engarina had been taken by the crocodile at noon. 118. They waited in the canoe but didn't see it. 119. They returned. 120. They were nearing

the mouth of the Topati river. 121. They all got wet in the heavy rain. 122. They came back as far as Watinwara. 123. There they could see the crocodile pulling the corpse. 124. As they neared Matias said, "There's the corpse!" 125. Before the canoe got close, the crocodile pulled her under. 126. Going home Matias said, "Let's get the body tonight. 127. The rain will have stopped." 128. They returned to the village. 129. "What did you find?" 130. "He saw us and took the corpse. 131. He seems to be taking it upstream." 132. The rain continued until dark without stopping. 133. It rained straight through. 134. Simson ran with the news. 135. He ran to Puar, near the mouth of the Cäum river. 136. Yusup was coming singing, with his wife Kornelia. 137. Simson clapped his hands. 138. "Who are you?" 139. "I'm Yusup." 140. "Don't sing! 141. Near the mouth of the Tivu a crocodile took Engarina. 142. She was taken at noon. 143. She's been taken in this direction." 144. Yusup and Kornelia were in their canoe. 145. "Look that way for the corpse. 146. Just watch for it as you travel." 147. He and Kornelia would search for the corpse as far as Setema. 148. A heavy rain was about to fall. 149. They picked Sumero leaves and she covered one basket. 150. Kornelia covered all the baskets. 151. Kornelia was sick. 152. They went on to Setema in the rain. 153. When they got to Fasiofe they were drenched with rain. 154. They continued to Setema. 155. Yusup's little garden house was there. 156. They anchored the canoe and got out. 157. They built a fire under the house. 158. Kornelia couldn't sleep. 159. Yusup slept hard. 160. Yusup dreamed. 161. Kornelia still couldn't sleep. 162. She felt hungry. 163. There was Kornelia. 164. Kornelia heard the sound of splashing water. 165. She could hear the sound of the water, splash! 166. She heard it three times. 167. Kornelia walked around. 168. She picked up some vegetables. 169. She wrapped them up. 170. "I'm hungry." 171. She walked to the door. 172. She tried to see where the water was splashing. 173. She saw the water splashing up very widely. 174. Kornelia saw it splashing up very widely. 175. The water went as high as the leaves of the Warāfri tree. 176. Kornelia went back. 177. She shook Yusup. 178. "Yusup, Yusup, wake up! 179. I think the corpse is over there. 180. The crocodile is throwing up water." 181. Yusup woke up. 182. When he woke up his foot had a cramp in it. 183. It was still asleep. 184. He went out of the house and sat on a bench. 185. He took his spear, but he left his arrows. 186. He went down in the canoe alone. 187. He felt compelled to go. 188. The canoe neared the mouth of the Topati river. 189. A really big one was coming straight towards it. 190. It was a huge crocodile. 191. It was from here to there long and was a salt water crocodile. 192. He saw crocodiles swarming like boards on a floor. 193. They were as numerous as piles of grass or palm stems that make up the walls of a house. 194. They were eating the corpse. 195. Yusup saw one bite off a hand. 196. Having thrown it, another one grabbed it, and Yusup saw it begin to bite off the head. 197. After the head came off it was thrown and caught by another, still another began to divide the body even further. 198. He bit at the waist until the body was divided and there were no legs. 199. There was only the chest. 200. One arm was missing. 201. The head had been cut off. 202. The right arm was still there

but not the left one. 203. Any other man besides Yusup would have been afraid. 204. He didn't seize the corpse. 205. He was afraid of the crocodiles. 206. The crocodiles were crowded together like pieces of a palm stem wall and floor boards. 207. Yusup moved fast because he saw the crocodile that had divided up the body and it was as long as from here to that wall over there! 208. The one that divided the body saw Yusup's canoe coming closer and turned his head. 209. He then dived into the water. 210. Yusup was afraid now that the big crocodile was in the water. 211. If there had been two men they would have been able to kill it. 212. There was the corpse, just the chest part, thrown up on the land. 213. Yusup went back to get Kornelia. 214. "Wow, the corpse is over there!" 215. They came here. 216. Kornelia told me about it. 217. I had asked her, "Could you clarify your story?" 218. "It was like this, we were coming back and were to the place where the mouth of the Upävu is almost seen when I suggested to Yusup that we take the corpse back today. 219. Yusup agreed so we went over there and put the chest and arm into the canoe. 220. We put the right arm in, because there were no feet, the body having been severed at the waist. 221. We put it in the canoe. 222. We brought her back and when we were near the mouth of the Upävu we met Pupuari. 223. 'Who are you?' 224. 'I'm Pupuari.' 225. Yusup told him, 226. 'Run down there. 227. We have found the corpse. 228. We're bringing it in the canoe. 229. Go tell the people at the ocean.'" 230. Pupuari ran this way, crying. 231. We were looking for him. 232. I was at our house in the kitchen. 233. From there I could hear him cry as he came out of the jungle. 234. He said, "The corpse has been seen." 235. Pupuari came here. 236. "What is it?" 237. "They're bringing the corpse. 238. Yusup has found Engarina." 239. Everyone came here leaving their houses empty. 240. People crowded at the mouth of the Tivu river. 241. The place was full of people. 242. It was full of men, women, and children. 243. Crying they brought the corpse from the canoe to the father's house. 244. Everyone was crying like usual. 245. Everyone was crying and those who returned from pounding sago cried too. 246. The ones who came included Fransina and all the other women without one exception. 247. They all cried like usual. 248. The rain continued into the night without stopping. 249. The coffin was made in the rain. 250. It was just a little one since there was no head and only a chest. 251. In the night the rain stopped. 252. They had finished making the coffin. 253. They would bury her in the morning. 254. It had rained since noon. 255. Everyone slept until morning. 256. That afternoon the police, Patipema, Kärarowai, and some else, the medic whose name I can't remember, arrived. 257. They arrived. 258. Patipem pointed his gun at Karten and shot it. 259. He shot it right under his chin. 260. Bang! 261. They grabbed Patipem but not before he hit Karten. 262. Karten fell down so they helped him up. 263. All that day and night it rained and people cried. 264. In the morning all who came from Sarmi gathered. 265. Rondapoe, the vice camat arrived. 266. Rondapoe came here. 267. "Where was she taken?" 268. "She was taken over there." 269. They took four canoes to show him the place where the crocodile grabbed her. 270. Then they went to the place where Yusup found the corpse. 271. The vice camat wrote it all down. 272. Rondapoe wrote until he was

finished. 273. The vice camat and everyone else returned, anchored the canoes and got out. 274. They cut up a dog. 275. After cutting it up, they ate it with chicken and vegetables too. 276. Wow! 277. They cooked it all. 278. They fried the dog meat in coconut oil. 279. Then they buried the little corpse. 280. They buried her chest and returned to the house. 281. The vice camat then went home. 282. After they had finished eating, the other government officials went home. 283. They all went, every one of them, back to Sarimi which had been almost empty. 284. They went back. 285. Patipem and Kärärowai slept here. 286. They slept until dawn. 287. In the morning, Patipem took a report from Karten. 288. "What happened?" 289. "Kora put a curse on my daughter." 290. The next morning the truck came with two soldiers. 291. Kora was called. 292. The tough soldiers took him to jail on that testimony. 293. Kora is still in jail, he hasn't returned. 294. The Korano discussed this with Karten. 295. The Korano went to find out the truth. 296. He had been up the river so didn't know when one of his villagers had been taken, since he has a normal head! 297. He felt that he had to go and find out the truth. 298. He had to go. 299. He talked to Karten that day at the meeting house. 300. "You are going to cause trouble, are you?" (Karten said.) 301. The Korano said, "No, I just want to find out the truth." 302. Kora is still in jail. 303. When will he be able to return? 304. Will they bring him to Jayapura? 305. This is the story about the taking of Engarina. 306. The miss asked me, 307. "Do you know it? 308. I'd like to know more about Engarina." 309. "I know it. 310. Go get the radio. 311. I will tell it to you because I know it. 312. This is my story. 313 - 314. It's true. 315. That's all."

NOTES

¹ The language is spoken by about 2,000 people who live on the north coast of Irian Jaya between the town of Sarimi and the Apawar River. The first author, Carol Erickson, is responsible for the data and the initial analysis. The second author, Evelyn Pike, is responsible for the semantic analysis, and the analysis of some of the higher levels of the grammatical structure.

² The narration by Toncë Mamnin was recorded on tape. The transcription of the narration, which appears at the end of this article, includes a morpheme-by-morpheme translation as well as a free translation.

³ For the tagmemic treatment of meaning, in general, as having reference to behavioral impact, purpose, communication, and understanding, see Kenneth L. Pike, 1967: 599; for meaning of the phonological hierarchy, 606; of the grammatical hierarchy 607 - 8.

⁴ Evelyn Pike was encouraged to try such intersecting semantic and grammatical discourse trees by the diagrams of Barnard in an appendix to Vol. III of Longacre (1968 - 69); unfortunately, in our view, these pioneer diagrams were omitted from Longacre (1968). A monograph by Wise (dissertation, 1968: 248 - 55; 274 - 81, later published by SIL in 1971) contained diagrams by levels (not trees) which represented

an extensive attempt at identifying and contrasting the two kinds of structures. This work, like that of Barnard, had a heavy impact on the theories of Kenneth L. Pike (personal communication). A careful comparison of these different but related approaches must await further study.

⁵ The nature of the grammatical hierarchy and procedures for grammatical analysis are discussed extensively in Pike and Pike (1974).

⁶ For a fuller discussion of Sentence and Sentence cluster structure, see the article by Sterner, Suharno, and Pike in this volume.

⁷ For extensive tagmemic analysis of approaches to high-level grammatical structures in discourse, see also Longacre (1972); for the tagmemic analysis of high-level structures of grammatical versus semantic hierarchies, however, one must consult Barnard (in Longacre, 1968 - 69, Vol. III, appendix) and Wise (1971). Other approaches to some of these problems are seen in Grimes (1974), with an extensive bibliography. For deep and surface structure within the sentence see also Ballard, Conrad, and Longacre (1971).

⁸ For a more complete description of Isirawa verb affixes see Section 4 of the Oguri-Cochran article in this volume.

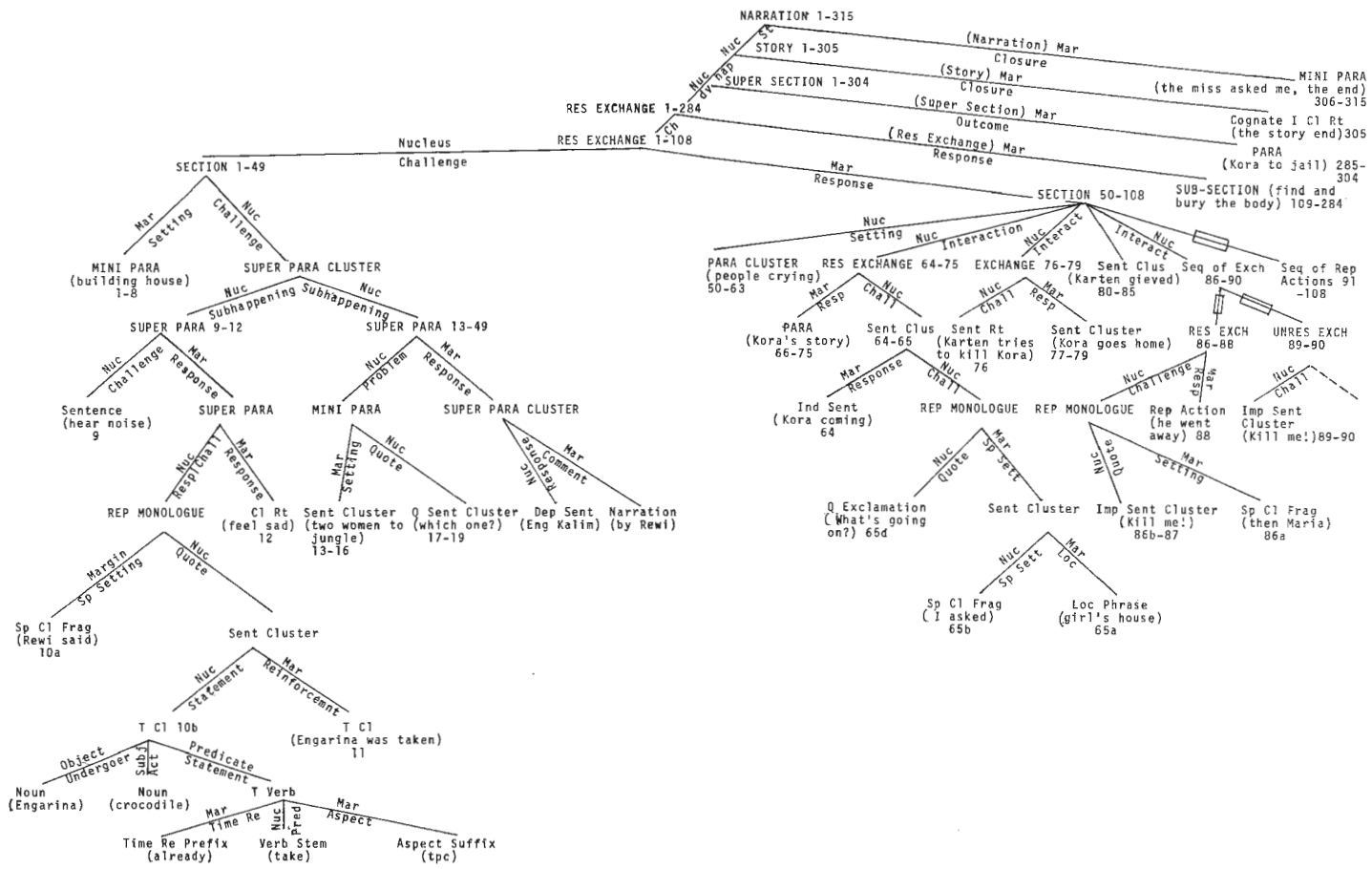


FIGURE 2
A TREE DIAGRAM OF THE GRAMMATICAL STRUCTURE OF AN ISIRAWA NARRATIVE