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A GRAMMAR OF IKA

*University of Pennsylvania*

PH.D. 1985

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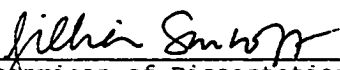
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A GRAMMAR OF IKA  
PAUL STEPHEN FRANK  
A DISSERTATION  
in  
LINGUISTICS

Presented to the Faculties of the University of Pennsylvania in Partial  
Fulfillment of the Requirements for the Degree of Doctor of Philosophy.

1985

  
Supervisor of Dissertation

  
Graduate Group Chairperson

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**1985**



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## **PREFACE**

Bill Labov once said in class that every linguist ought to write a reference grammar at some point in his or her career. He also said that the first person to research any topic is invariably wrong. In writing this dissertation I have experienced the challenge of writing a grammar of Ika as well as enjoying the dubious distinction of being the first person to write on a variety of topics in Ika grammar.

I feel fortunate to be working in a period in the history of linguistics in which it is once again becoming respectable to write a descriptive grammar of a little-known language. My primary goal has been to provide information on a broad range of topics in Ika grammar in a format that would be accessible to those concerned with language universals and typology.

A secondary goal in producing this grammar has been to lay a foundation for practical materials that would benefit the B́ntukwa people (who speak the Ika language). The B́ntukwa are at an important point in their history as they have begun to manage the education of their own children, in their own language, with the help of the Colombian government. B́ntukwa educational leaders have expressed the desire that their teachers receive more orientation to their language, that they may be able to deal with on a conscious level what they already control with unconscious fluency. It is my hope that this dissertation will benefit not only the linguistic community but also the B́ntukwa people as they seek to establish themselves and maintain their language and identity in a changing world.



## **1. INTRODUCTION.**

### **1.1 The genetic classification of the Ika language.**

Ika is a Chibchan language spoken by the B́intukwa, approximately 7000 people living on the southern slopes of the Sierra Nevada de Santa Marta in northeastern Colombia.<sup>1</sup> Kogi, Malayo, and Chimila are the languages most closely related to Ika and are also spoken in or near the Sierra Nevada de Santa Marta. Although most sources place Ika within the Chibchan language family proper, Shafer (1962) posits a family coordinate with Chibchan, called Aruakan, consisting of Ika and its three sister languages. (See also Constenla 1981, Jijón y Caamaño 1943, Key 1979, Loukotka 1935, 1938, and 1968, Mason 1950, McQuown 1955, Rivet and Loukotka 1952, Tovar 1961, and Wheeler 1972.) The B́intukwa have also been referred to as the Aruak, Arhuak, Arhuaco, Ica, Ijca, Bintucua, and Vintukua.

### **1.2 The B́intukwa people.**

The B́intukwa are an agricultural people; they grow corn, coffee, bananas, sugar cane, manioc, potatoes, onions, and avocados at elevations between 1000 and 10,000 feet. They also raise a small number of cattle, sheep, and goats and use oxen, horses, and mules for transport. Panela (brown sugar), coffee, and avocados serve as cash

crops. The people live in family groups near their fields, moving from field to field to plant, care for, and harvest their crops. Many families also maintain houses in villages, which serve as social and ceremonial centers.

A central figure in B́ntukwa life is the **mami** or shaman. He serves as the intermediary between the people and the spirit world. The people consult with him on all occasions of importance: marriage, birth, illness, death, naming of children, passage into adulthood, harvesting the first of the crops. The **mami** also serves as a bearer of knowledge of ritual, history, and beliefs -- a cultural resource that may indeed be dwindling; it is said that few young men are now training for the role of **mami**.

There are political leaders among the B́ntukwa, both on the village level and for the group as a whole. The most respected **manis** choose a governor (**cabildo gobernador**) who heads a small group of men known as the **junta directiva**. The **junta directiva** represents the community in its dealings with the government and other outside groups, and makes decisions pertaining to the community as a whole. The **junta directiva** and representatives from all areas of the community meet yearly to discuss important issues and make major decisions. These meetings take place in Nabusímake (formerly known as San Sebastián) and have frequently attracted Colombian government officials as well as politicians aspiring to public office.

The B́ntukwa live within a land reserve granted by the Colombian government to the Indians of the Sierra Nevada de Santa Marta. Nevertheless, the people face pressure from non-Indian colonists who own land within the reserve, some for many years. The tensions between Indian and colonist have increased and now the community is buying back land as they are able, with the help of the Colombian government. Non-Indian control of schools among the B́ntukwa has also been a source of tension in recent years, but the B́ntukwa leadership now controls all local schooling and, in conjunction with government agencies, is developing a bilingual educational program.

### **1.3 The source of data for this study.**

The data used in this study come from my own fieldwork with the B́ntukwa between May and December 1984 and from texts gathered by Hubert Tracy between 1968 and 1980. The text collection includes narratives (primarily hunting stories), descriptions of animals and their habits, procedural texts (e.g., how to make clothing), conversations, explanations of customs and outlook on their world, and some folk tales. All of these materials were collected in semi-formal sessions with native speakers. To supplement these materials, particularly with regard to infrequently occurring constructions and paradigms, I elicited additional data, primarily from Mr. Abran Izquierdo Solís.

## 1.4 The typological characteristics of Ika.

Ika is an SOV language, as shown by the parameters discussed below.

**1.4.1 Word order.** The basic word order in main, declarative clauses in Ika is SOV, as seen in the following examples.

- (1) José guiadžina wasa-na.  
José puma chase-dist

'José went after a puma.'

- (2) I'mänɪ Juansitu keina-kɪ guiadžina tšɪwa g-än nu'-na.  
once Juancito place-loc puma goat eat-impfv aux-dist

'One time a puma killed a goat near Juancito's place.'

**1.4.2 Adpositions.** Ika uses postpositions in adpositional phrases. The following examples illustrate the postpositions *sin* 'with,' *pari* 'from,' and *-ikin* 'limitative.'

- (3) Perɪ sin keiwɪ zoža-na-rua.  
dog with right.away go-dist-1S

'I went with my dog.'

- (4) Emi pari guiadžina zag-än nu'-na.  
here from puma steal-impfv aux-dist

'A puma was stealing from here.'

- (5) Eim-ekɪ pari-ri llóu-kitšɪ zän' wa'kä-zar-i  
that-loc from-top all-emph just see-be-while

awión wa'nä-ž-ékɪ-kin.  
airplane fall-med-loc-lim

'From there, you could see everything, as far as the airport (where the airplanes fall).'

**1.4.3 Head noun and adjective.** Adjectives follow the head noun in the noun phrase, as in example 6.

- (6) kakarón            aroma  
       shotgun.shell empty  
       'empty shotgun shell'

In this respect, Ika does not fit the pattern of typical OV languages (Lehmann 1972, 1978) which usually show the order adjective-head noun. However, it is not uncommon for SOV languages to show the order head noun-adjective. (See for example the list of languages in Greenberg 1966, appendix II, where 55% of the 64 SOV languages have adjectives following the noun.) Quantifiers and numerals also usually follow the head noun:

- (7) perĩ mouga  
       dog two  
       'two dogs'

**1.4.4 Head noun and genitive.** Genitives generally precede the head noun. A genitive construction is made up of a possessor phrase and the head noun (the possessed item). The possessor phrase consists of a noun followed by *zei* 'genitive.' It is this possessor phrase, then, that usually precedes, but may follow, the head noun. In the following examples, the possessor phrase is in parentheses.

- (8) (nivi     zei) tutusoma  
       1plpro gen hat  
       'our hats'

(9) tšinu (in'gui zei)  
 pig one gen

'someone's pig'

**1.4.5 Affixation.** Both prefixes and suffixes occur in Ika, though suffixes predominate. There is very little noun morphology: clitics that mark case, e.g. **ka'-se'** (ground-locative) 'on the ground,' **-ri** 'topic', and person prefixes for kin terms. Verb morphology, however, is more extensive. There are person marking prefixes, but the majority of the affixes in the verb phrase are suffixes. These fall into four main classes: aspectual, modal, clause-connecting, and derivational suffixes. Examples 10a-d illustrate these four classes of verb suffixes (respectively):

(10) a. ASPECTUAL  
 zož-än  
 go-impfv

'going'

b. MODAL  
 nak-ikua  
 come-must

'must come'

c. CLAUSE CONNECTING  
 kätšar-e'  
 arrive-then

'he arrived and then ...'

d. DERIVATIONAL  
 nik-amî  
 to.work-nmlzr

'work'

**1.4.6 Relative clauses.** Relative clauses show a basic order head noun-relative clause. Since case markers occur on the end of the relative clause rather than on the head noun itself, relative clauses are probably best treated as having an internal head. Example 11 illustrates a subject-initial, internally-headed relative clause. The head noun of the relative clause is **ik̄ ing'gui** and the clause itself is in parentheses. Note the ergative marker **-se'** at the end of the embedded clause rather than on the head noun **ik̄ ing'gui** 'a man' itself.

- (11) (**Ik̄ ing'gui** Rísiu za'ki nuk-ža)-se'-ri än-tšua-na.  
 man one Lisio name cop-med-erg-top pt.ref-see-dist

'A man named Lisio saw it.'

Pre-nominal relative clauses also occur but are rare in my corpus. 12 illustrates this relativization strategy:

- (12) (guiadžina-se' ga-na **tšiva**)-ri wanak-akí nuk-ž-aba'  
 puma-erg eat-dist goat-top bring-perf aux-med-loc

'where they had just brought the goat that the puma ate'

A basic order head noun-relative clause is consistent with Ika's noun-adjective order although the order relative clause-head noun would be more typical of an OV language.

**1.4.7 Comparatives.** In comparative constructions, the comparative adjective follows the standard of comparison, as seen in example 13:

- (13) Pedru (nä'än-guasi ingumän) kawa ni.  
 Pedro 1pro-compar large seem cert

'Pedro is bigger than me.'

**1.4.8 Negation.** Negation is marked in the verb phrase by the verb suffix **-u** 'negative,' as seen in example 14:

- (14) Eima kusarì an-a-g-u<sup>1</sup> nän-na ni.  
 that deer pt.ref-12plS-eat-neg aux-dist cert

'We did not eat that deer.'

**1.4.9 Questions.** In yes/no questions, the question marker occurs at the end of the sentence, as in example 15:

- (15) Jordán nä-kuä-ža no?  
 Jordán 2S-live-med ig

'Do you live in Jordán?'

In information questions, the question word is generally placed at the beginning of the sentence<sup>2</sup> while the question marker (**-o**, **-e** or **no**) still appears at the end:

- (16) Bekì ás-ik-o?  
 where sit-must-ig

'Where shall I sit?'

The next two examples question subject and object, respectively, and also have the question word sentence-initially and the interrogative particle or suffix sentence-finally.

- (17) Inì-ri nai-n nuk-äv-an-o?  
 what-top walk-impfv aux-aux-impfv-ig

'What could be walking?'

- (18) Inì was-i-ri ei ž-än no?  
 what chase-while-top thus say-impfv ig

'What is it chasing, barking like that?'



**1.4.10 Coding of major syntactic functions.** The major categories subject and object are primarily distinguished by differential marking on the verb. The single participant of an intransitive verb and the agent of a transitive verb are both referenced by the same verb marking morphology. 19 illustrates this fact with an intransitive verb (19a) and a transitive verb (19b), both marked for first person by *-rua*:

(19) a. *zoža-na-rua.*  
go-dist-1S

'I went.'

b. *Mi-tšua-na-rua.*  
2O-see-dist-1S

'I saw you.'

A set of object prefixes serve several functions, the most basic of which is the patient in transitive verbs and the 'indirect object' of bitransitive verbs (e.g., give, sell, buy). 19 illustrates the second person object prefix. 20 shows that when subject and object prefixes both occur, the subject prefix comes first.

(20) *Nä-nive-'zasana u-ž-e?*  
2S-1plO-pay aux-med-ig

'Did you pay us?'

There is no separate category of indirect object. Thus, with bi-transitive verbs, the recipient of the object is referenced by the object prefix, as in 21, where the second person 'indirect object' of 21a is marked in verb morphology in the same way as the second person object of 21b, by *ni-* '2 object':

(21) a. Mi-k-ängei'-na-rua.  
20-periph-sell-dist-1S

'I sold it to you.'

b. Mi-tšua u-ž-in.  
20-see do-med-wit

'He saw you.'

Subject noun phrases usually precede object in linear order.

**1.4.11 Ergativity.** Ika is basically a nominative-accusative language in both verb morphology and syntactic phenomena, but evidences two types of split ergativity — differential marking of the single participant of intransitive verbs in verb morphology, and optional case-marking of transitive subject noun phrases.

As indicated in the preceding section, verb morphology essentially is nominative-accusative, with the same person-marking affixes referencing both the agent of transitive verbs and the single participant of intransitive verbs. Syntactic phenomena also show a nominative-accusative pattern. For example, with imperatives, the agent of transitive and 'subject' of intransitive are not stated. More significantly, verbal complementation usually involves some sort of same-subject/different-subject restriction associating the transitive agent and intransitive subject. Adverbial clauses, expressing simultaneous action, must have the same subject as the verb of the main clause in which the adverbial is embedded. Thus, in 22 both **was** 'chase' and **žun** 'go down' must have the same subject in a nominative-accusative

alignment, even though the agent of 'chase' is ergative-marked (as will be discussed shortly):

- (22) Peri-se'-ri win-was-i            Žun-na.  
 dog-erg-top 3plS-chase-while go.down-dist

'The dogs went down chasing it.'

The vast majority of verb roots in Ika take the standard subject person-marking for both the agent of a transitive and the single participant of an intransitive, but one small group of intransitive verbs always references the single participant by the object person prefixes on the verb, an ergative-absolutive pattern. This small set of intransitive verbs can be characterized semantically as involving a participant who is an experiencer. 23a shows a clause with a transitive verb, in which there is a first person object referenced on the verb by the prefix *nā-*. The verb *a'tikuma* 'forget' in 23b uses the same prefix to reference the single participant of the verb:

- (23) a. Nā-tsua-na.  
 10-see-dist  
 'He saw me.'
- b. Na-'tikuma-na.  
 10-forget-dist  
 'I forgot.'

Dixon has called this sort of split ergativity 'split S-marking,' a cover term for cases "where intransitive verbs fall into two mutually exclusive subclasses, one using A[gent]-marking and the other O[bject]-marking for its S[ubject] NP" with the subclasses based on the semantic type of the verb (Dixon 1979:84). That is, the intransitive verbs that show marking characteristic of transitive agents are ones

involving a volitional agent in control of the action, whereas ones that show marking characteristic of transitive patients are ones involving a non-volitional agent not in control of the action. A survey of this set of verbs in section 2.3.4 shows the same semantic basis in this group of verbs that take object marking. Dixon also notes that the size of the class of intransitive verbs taking what he calls O-marking varies from language to language, from being a large open class in some languages to being a small class of only a few dozen verbs in other languages. Indeed, Ika is at the end of the spectrum having only a small number of such verbs. Because of the quite small number of verbs which show this ergative-absolutive pattern of person-marking in the verb morphology, I have chosen to present the person-marking affixes as subject and object markers. It should be noted that the Chibchan languages of Central America are basically ergative in nature (Constenla 1982 and personal communication), suggesting that this aspect of split ergativity in Ika may be the remnant of what was formerly an essentially ergative system.

The other aspect of split ergativity in Ika involves the differential marking of agent noun phrases in transitive clauses. Overt noun phrase references to agents in transitive clauses may be marked by *-se* 'ergative,' as seen in 24:

(24) Tigri-*se* tšinu kă-ga-na.  
jaguar-erg pig periph-eat-dist

'A jaguar ate his pig.'

The subject of intransitive clauses and the object in transitive clauses receive no case marking. This ergative case-marking is optional in the sense that it does not appear on every agent noun phrase and is not

categorically controlled by some factor such as an animacy hierarchy, as discussed by Silverstein 1976 and others. However, it appears that this type of ergative marking is influenced by the pragmatic status of the agent relative to the object, with the agent noun phrase marked as ergative when the object is given information and the agent is new. (See section 9.3 in the pragmatics chapter for a fuller discussion of *-se'*.)

Dixon notes that "in most examples of split conditioned by the semantic nature of verbs, bound affixes are involved; whereas, in most examples of split conditioned by the semantic nature of NP's, case-marking is involved" (1979:89). Ika follows this pattern, with the split evidenced in verb morphology depending on the semantic nature of the intransitive verbs, and the split based on the pragmatic status of the noun phrases involving case-marking.

### **1.5 Ika phonemics.**

The following two tables summarize the phonemes of Ika.<sup>3</sup> (See Tracy and Tracy 1973 for details on Ika phonology.) The symbols in parentheses indicate how the phoneme in question is written here.

	Bilabial	Alveolar	Alveopalatal	Velar	Glottal
<b>Stop</b>					
Voiceless	p	t		k	ʔ(')
Voiced	b	d		g	
<b>Fricative</b>					
Voiceless		s			h
Voiced	β(w)	z	ʒ		
<b>Affricate</b>					
Voiceless				tʃ	
Voiced				dʒ	
<b>Flap</b>					
		r			
<b>Nasal</b>					
	m	n			

**Table 1 Ika consonants.**

	Front	Central	Back
High	i	ɨ	u
Mid	e	ä	o
Low		a	

**Table 2 Ika vowels.**

Stress usually falls on the penultimate syllable and is marked here only when any other syllable is stressed in polysyllabic words.

Diphthongs are composed of a nonsyllabic *i* or *u* plus another vowel. In the combination *ui*, it is the *u* which is nonsyllabic.

u/i onglide		u/i offglide
ua	ia	ei
uɨ	iɨ	ou
ui		
ue		
uä		

**Table 3 Ika diphthongs.**

## 1.6 Syllable structure.

The basic syllable structure in Ika involves simple or diphthongal syllable nuclei with optional onset and coda. (The examples in this section do not show morpheme boundaries; a period indicates syllable division.) A simple syllable onset may be any consonant except glottal stop. A complex onset may be made up of a stop plus r.

Syllable onset:	Simple	Complex
	CV	CCV.CVC
	ma	dru.nän
	'you'	'to fly'

Syllables may be either open or closed. (The words above illustrate two open syllables and one closed syllable.) A simple syllable coda may be any consonant except the voiced fricatives; glottal stop occurs only as a syllable coda. Stops and s, however, may close the syllable only when immediately followed by an identical segment. The only allowable complex coda is n'.

Syllable coda:	Simple	Complex	stop or s
	VC.CVC.CVVC.CV	V.CVCC	C VC.CVV
	äm.win.gua'.na	a.wän'	tšuk.kui
	'they killed it'	'big'	'rat'

### 1.7 Ika morphophonemics.

Morphophonemic alternations in Ika can be divided into four types: (i) alternations which can be understood in terms of rules of phoneme combination, (ii) alternations of one segment with another which are regular yet not required by rules of phoneme combination, (iii) alternations of vowels and  $\emptyset$  governed by syllable structure patterns, and (iiii) morphophonemic fusion.

The first group involves changes governed strictly by phonological principles. These alternations change non-allowable phoneme combinations into allowable combinations. Because no alternation can be said to have occurred without reference to the underlying forms of the morphemes involved, I have included these alternations under morphophonemics rather than phonemics. The second group involves automatic alternations which apply only at morpheme boundaries, changing one possible or allowable phoneme combination into another. The third group deals with the basic CV patterns for the underlying forms of morphemes and the way in which these patterns govern vowel/ $\emptyset$  alternations at morpheme boundaries. The fourth group describes changes in which segments fuse to form a third segment.



**1.7.1 Phonologically conditioned variation.** The following paragraphs describe alternations directly related to patterns of phoneme combination.

A nasal and the following obstruent always share the same point of articulation; consequently **n** becomes **m** before labials. Compare the forms of **än-** 'it' in example 25a, and b:

- (25) a. **än-tšua**                      b. **äm-win-guak**  
           pt.ref-see                      pt.ref-3plS-kill  
           'see it'                        'they kill it'

**r** becomes **d** following a nasal. Compare the forms of **-ri** 'topic' in 26a and b.

- (26) a. **Dorori-ri**                      b. **Säwästian-di**  
           Dolores-top                      Sebastian-top

The vowels **o**, **a**, and **e** are raised to **u**, **ä**, and **i** (respectively) in closed syllables. Compare the forms of **itšon** 'go.up,' **nän** 'to be,' and **a'tšugen** 'collide' below. (Syllable divisions rather than morpheme boundaries are indicated in these examples.)

- (27) a. **V.C V.CVC.CVC.CV**                      b. **V.C VC.CV**  
           i.**tšo.näm.pän.na**                      i.**tšun.na**  
           'he began to go up'                      'he went up'
- (28) a. **CV.CV**                                      b. **CVC.CV**  
           **na.re'**                                      **nän.na**  
           'was, and then ...'                      'was'  
           (the **n** becomes **r** before front vowels  
           as described below)
- (29) a. **VC.C V.CV.CVC**                      b. **VC.C V.CVC.CV**  
           a'.**tšu.ge.nän**                      a'.**tšu.gin.na**  
           'colliding'                                      'collided'

The mid central vowel  $\text{ɜ}$  never occurs word finally and is raised to  $\text{ɨ}$  at the end of a word.<sup>4</sup> Example 30a and b illustrate this raising in the word  $\text{ikɨ}$  'people':

- (30) a.  $\text{ikä-zei}$                       b.  $\text{ikɨ}$   
           people-gen                      people  
           'of the people'                'people'

**1.7.2 Alternations applying only at morpheme boundaries.** Several other morphophonemic alternations are regular but not governed by the patterns of phoneme combination. Even though the sequences  $\text{ki/ke}$  and  $\text{ni/ne}$  occur within morphemes,  $\text{k}$  becomes  $\text{s}$  and  $\text{n}$  becomes  $\text{r}$  when followed by a front vowel across a morpheme boundary. The word  $\text{neki}$  'contrary to expectation,' for example, shows both  $\text{n}$  and  $\text{k}$  followed by front vowels, yet these same consonants change when followed by front vowels across a morpheme boundary. The following examples illustrate these changes with the  $\text{k}$  of  $\text{nuk}$  and the final  $\text{n}$  of  $\text{nan}$  (copular/auxiliary verbs). The first word in each set illustrates the basic form of each verb, when not followed by a front vowel.

- (31) a.  $\text{nuk-ikua}$                       b.  $\text{nus-e'}$                       c.  $\text{nus-i}$   
           be-must                              be-then                              be-while

- (32) a.  $\text{nan-u'}$                               b.  $\text{nar-e'}$                               c.  $\text{nar-i}$   
           be-neg                                      be-then                                      be-while

Morpheme final  $\text{k}$  becomes glottal stop before a consonant. This change even occurs before  $\text{k}$  although the sequence  $\text{kk}$  does occur within a morpheme. That is,  $\text{kk}$  occurs within a morpheme in words such as  $\text{tʃukkui}$  'rat,' but a morpheme-final  $\text{k}$  would change to glottal stop before a

consonant across a morpheme boundary, even when that consonant is another **k**.<sup>5</sup> Example 33a and b illustrate this change in the verb root **nak** 'to come.'

- |         |                       |    |           |
|---------|-----------------------|----|-----------|
| (33) a. | nak-äm-pän-na         | b. | na'-na    |
|         | come-impfv-incep-dist |    | come-dist |
|         | 'began to come'       |    | 'came'    |

The sequences **i'** and **ä'** occur within morphemes, for example in the words **zi'** 'red' and **nä'än** 'I,' but **i** and **ä** are lowered to **e** and **a**, respectively, when preceding a glottal stop across a morpheme boundary. Consider the final vowels in the object prefixes **nivi-** '1 plural object' and **nä-** '1 singular object' when they occur before '**zasana** 'to pay':

- |      |               |             |
|------|---------------|-------------|
| (34) | Nive-'zasana  | u-ž-in.     |
|      | 1plO-pay      | aux-med-wit |
|      | 'He paid us.' |             |
| (35) | Na-'zasana    | u-ž-in.     |
|      | 1O-pay        | aux-med-wit |
|      | 'He paid me.' |             |

**1.7.3 Vowel/∅ alternations.** Many morphemes, both roots and affixes, show two variants: one with and one without an extra vowel at the morpheme boundary. For example, compare the form of **nak** 'to come' in **na'-na** (come-dist) 'came' with its uninflected form in example 36:

- |      |            |             |
|------|------------|-------------|
| (36) | Naka       | u-ž-in.     |
|      | come       | aux-med-wit |
|      | 'He came.' |             |



Second, a deletion analysis forces the problematic matter of determining which vowel to delete, the first or the second. Example 39 contrasts two cases involving vowel 'deletion' where the outcome is different under apparently identical circumstances. The second line of each example gives the longer form of each morpheme as its basic form. In both cases, a is followed by e, but in 39a the a is deleted while in 39b the e is deleted:

- |         |                 |    |                  |
|---------|-----------------|----|------------------|
| (39) a. | zoža-n-ek̩      | b. | keina-k̩         |
|         | zoža-na-ek̩     |    | keina-ek̩        |
|         | go-dist-loc     |    | place-loc        |
|         | 'where he went' |    | 'someone's home' |

This suggests that the vowel/∅ alternation is a property of particular morphemes, not the result of a deletion rule.

A more accurate characterization of these alternations might be that each morpheme's underlying form specifies a constant CV pattern or syllable structure in addition to particular segments that realize this structure. For instance, the underlying form for the locative suffix in example 39 above would be

V C V  
(e) k ɨ

The e in parentheses indicates that if the preceding morpheme does not end in a vowel, the locative suffix supplies e in order to maintain its VCV shape; otherwise the e does not appear in the surface form of the morpheme.

The suffix **-na** 'distal' would be handled differently. The underlying form for this suffix would be written as follows:

C V  
n

When no vowel immediately follows the suffix, a general rule would supply **a**. I have two reasons for proposing this analysis. First of all, **a** is by far the most frequent vowel involved in vowel/∅ alternations. Secondly, whenever **a** and a different vowel come together across a morpheme boundary, the **a** is usually 'deleted,' regardless of its position in the sequence. By positing an empty V in the underlying form, it is possible to state a general rule supplying the majority of the optional vowels, without a need for a separate rule specifying which vowel will be realized in a sequence of two optional vowels.

It is not my purpose here to detail completely an analysis of vowel/∅ alternations, but I believe that an analysis of this area should be along the lines sketched above.

**1.7.4 Morphophonemic fusion.** There is one instance of two segments fusing to form a third segment: when **k** is followed by **ž**, the two fuse to form **g**. Consider the following. The verb roots **nik** 'to work' and **nuk** 'to be' when followed by **-e** 'then' become **nise** and **nuse**. The fact that the verb root final **k** becomes **s** before **e**, as described above, indicates that **-e** immediately follows the verb root. However, if **-ž(a)** 'medial' occurs between one of these roots and **-e**, the results are **nige** and **nuge** respectively, the **k** and **ž** fusing to form **g**. This fusion takes place in all cases where morphemes ending in **k** are followed by **ž**. In words such as these, there is no longer any segment which uniquely

represents 'medial' since the **g** belongs to both the root and the suffix.

However, I will write words in which this fusion occurs as follows:

(40) **nik-ž-e'**  
do-med-then

Phonemically, **g** occurs rather than **kž**.

Some cases involving vowels show evidence of two vowels or a vowel and a glide collapsing together, though a third, distinct segment does not result as in the case of **k** and **ž**. The auxiliary verb **u** has two morphophonemic alternants, **u** before consonant-initial suffixes and **aw** before vowel-initial suffixes. Thus, **aw** is chosen before **-u'** 'negative,' but the resulting form is **au'**, with the **w** and **u** collapsing into **u**. Another case of the collapsing of vowels is the combination **ānkari** 'to converse' and **-i** 'while' as **ānkari**. In such cases of two identical vowels in sequence, the two vowels collapse into one, often with word stress shifted to that vowel.

- 
1. At this point in time, the stated preference of the community is for the people to be called the Bintukwa and the language Ika.
  2. Although question words almost always occur at the beginning of the clause, there is no evidence that this position is the result of a movement. I have found no examples of questions where the question word refers to the object and is followed by a full noun phrase subject. In interrogative transitive clauses questioning the object, the subject is given information and not overtly referenced in the clause by a noun or pronoun. Thus, the question word appears in initial position simply because the subject is not present.
  3. In a few words, the velar nasal (**ŋ**) appears to contrast with **n** prevocally, e.g. **aruṅān** 'to think' vs. **drunān** 'to fly.' For this reason, Tracy and Tracy 1973 lists the velar nasal as a separate phoneme. However, the syllable boundary always follows any intervocalic **ŋ**, thus it could be said that the phoneme **n** is realized as a velar nasal syllable-finally before vowels, before velar consonants, and word-finally. In this work, then, all nasals with a velar point of articulation are written as **n**. The vowel **ā** presented problems in the original analysis and its representation in the

practical orthography has lead to confusion. **ǎ** occurs almost exclusively in closed syllables (with some instances of variation between **a** and **ǎ** in unstressed open syllables), but neither **a** nor **ǎ** occur in closed syllables. Using morphological clues, it is possible to identify alternation between **a** and **ǎ** and between **ǎ** and **ǎ**, as described in the section on morphophonemics. The Bintukwa community has apparently decided to group **ǎ** and **ǎ** as one element in the orthography, as distinct from **a**. I have taken the approach of maintaining **ǎ** as a separate element in this work because of the uncertainties concerning its phonemic status.

4. The **ǎ/ǎ** alternation could be seen as a lowering process, thus making the citation form of the word the basic form. Spanish loan words, however, show a similar raising of mid to high vowels word-finally, e.g. **puenti** 'bridge' (Spanish **puente**) and **kǎbaǎ** 'horse' (Spanish **caballo**).
5. The phonetic difference between **kk** and **'k** is slight, but one clue to distinguishing the two is that most vowels have a shorter and more lax allophone before **kk**.



## 2. Word classes in Ika.

The major word classes in Ika include nouns, adjectives, and verbs, each of which, in turn, may be subdivided further. Among the minor classes are adverbs, personal pronouns, demonstrative pronouns, postpositions, conjunctions, noun adjuncts, and verb adjuncts. This chapter briefly discusses each of these categories and notes the sections where particular topics are covered in greater detail in later chapters.

### 2.1 Nouns.

Nouns may be divided into the following subclasses: kin terms, proper names, nouns derived from verbs, and other nouns. Kin terms carry person prefixes indicating whose kin is being referred to, e.g. **nā-kakī** (1-father) 'my father.' When used as a term of address to one's own kin, the kin term does not take a person prefix (e.g., **kakī** 'father'). Proper names are generally ones borrowed from Spanish with considerable assimilation to Ika phonological patterns.

Nouns derived from verbs do not appear to be very frequent. The nominalizer **-ani** can be seen in **nik-ani** (to.work-nmlzr) 'work'; **-ž(a)** 'medial deictic aspect' derives from verbs a noun meaning 'a person who characteristically does an action,' e.g. **zágā-ža** (steal-medial) 'thief.'

## 2.2 Adjectives.

A small number of adjectives by themselves may serve as noun modifiers or as predicate adjectives in descriptive clauses. The adjective **aroma** 'empty' falls into this class.

- (41) **chokuž**      **aroma**  
       gourd.bowl empty

'empty dish'

Most adjectives must occur with **kawa** 'seem,' both when modifying a noun and as a predicate adjective. In descriptive clauses, with predicate adjectives, **kawa** serves as the verb:

- (42) **Juansitu warin kawa ni.**  
       Juancito tall    seem cert

'Juancito is tall.'

In noun phrases these adjectives plus **kawa** look something like relative clauses. In example 43, the adjective phrase **avän' kawa** (big seem) serves as a modifier in the noun phrase. The head noun is in bold and the adjective phrase is in parentheses

- (43) **Aná'nuga** (avän' kava) guákä-ža.  
       animal    big    seem    kill-med

'It kills big animals/animals that are big.'

## 2.3 Verbs.

There are at least eight categories of verbs in Ika: intransitive, transitive, bitransitive, impersonal verbs, verbs that take a sentential object, quotation-like verbs, copulas, and auxiliary verbs.

**2.3.1 Intransitive verbs.** Intransitive verbs are one-participant verbs (or in the case of motion verbs, one participant plus optional location). Subject person affixes on the verb reference this single participant. The verb root *asa* 'to sit down' is one intransitive verb.

(44) Eim-ékí-ri win-asa aw-i-ri,  
there-loc-top 3plS-sit aux-while-top

'They are sitting down there,...'

**2.3.2 Transitive verbs.** Transitive verbs involve two participants. The subject is referenced in the verb by the same person affixes used with intransitive verbs. The object is referenced by object prefixes. (Section 5.2 covers person-marking.)

(45) Mi-tšua-na-rua.  
20-see-dist-1S

'I see you.'

Subject noun phrases may be marked by *-se* 'ergative.' (Section 9.3 examines ergative marking in some depth.)

(46) A-se'-ri du tšua u-na.  
3pro-erg-top well see aux-dist

'He looked it over well.'

Transitive clauses without this ergative marking on the subject NP usually show the standard SOV order with explicit reference to both subject and object.

- (47) Gāriwieri tigri a'wasa-na.  
 Gabriel jaguar chase-dist  
 'Gabriel hunted a jaguar.'

**2.3.3 Bitransitive verbs.** Bitransitive verbs involve subject, object, and a source/destination for the movement of the object. Subject and object noun phrases are not marked for case; the human participant who is the source or goal is marked by **-se**. Non-third person source/goal is referenced on the verb by the object prefixes.

- (48) Abran-di Juan-se' kafé a'be u-ž-in.  
 Abran-top Juan-loc coffee deliver aux-med-wit  
 'Abran delivered coffee to Juan.'

Ika has a series of bitransitive verbs meaning 'to put down' which are used with objects of different shapes: long and thin (**gaka**), cylindrical (**sa**), flat (**pan**), and containers, or more or less three dimensional (**tšo**'s). Example 49 demonstrates this contrast for **kān** 'stick' and **paperi** 'paper.' (See section 5.3.2 for an explanation of the noun classes involved.)

- (49) a. Kān ka'-se' gakó u!  
 stick ground-loc put.down aux  
 'Put the stick on the ground!'  
 b. Paperi ka'-se' pa ú!  
 paper ground-loc put.down aux  
 'Put the paper on the ground!'

**2.3.4 Impersonal verbs.** Some verbs, e.g. a'zan 'to think/feel' and kusein 'to get better,' have only one participant which is referenced on the verb by the object person prefixes. Note the first person object marker nã- in the example below.

(50) Nã-kusein-u'   gui ni.  
       10-recover-neg also cert

'I still have not gotten better.'

This is essentially an ergative pattern, but the vast majority of verbs show nominative-accusative person-marking, with a small, closed set showing the pattern described here. This phenomenon is similar to what Givón calls 'dative subjects' (1984:143-144): experiencer subjects which are case-marked as dative objects. It is also similar to some verbs in Latin, e.g. the verb for 'repent,' for which the single participant occurs in the accusative.<sup>1</sup> I will use the term 'impersonal' to capture the fact that the one participant is referenced by the object markers but there is no subject involved. (See section 1.4.11 for a fuller discussion of ergativity in Ika in relation to these verbs.) I have identified the following verbs as impersonal verbs:

aguntan	'to be tired'
a'mätša	'to hurt (feel pain)'
a'sinkirin	'to sneeze'
a'ten	'to be wet and cold'
a'tikuma	'to forget'
a'zan	'to think/feel'
angakuma	'to be/get frightened'
gänkua	'to know'
gumätšan	'to be drunk'
kawa	'to seem' or 'to have to X'
käpäna	'to get sick'
käzan	'to be busy/occupied'
kusein	'to recover/get better'

**Table 4 Impersonal verbs.**

**2.3.5 Verbs with sentential objects.** Two verbs which take sentential objects are **gua'sa** 'to cause' and **kawa** 'seem.' **gua'sa** takes an object whose verb is marked only by **-än** 'imperfective'; the subject of the embedded clause is not coreferential with the subject of **gua'sa**:

- (51) (ṣ̌i wis-än ) neki gua's-u' nar-i  
 foul.odor spray.out-impfv cntr cause-neg aux-while

'(She) did not let the skunk's scent spray out,...

**kawa** used with a sentential object unmarked for mood is interpreted as 'it seems that X':

- (52) (Mákäṛi-se' ga-na ) kaw-in.  
 vulture-erg eat-dist seem-wit

'It seems that a vulture ate it.'

**2.3.6 Quotation-like verbs.** A number of verbs involving speech, perception, or cognition take a sentential complement which is a full clause with an inflected/finite verb. Examples are **ža** 'say,' **tšua** 'see,' and **a'zan** 'think.' (Each of these verbs also fits in another class: **ža** and **tšua** with transitive verbs, and **a'zan** with impersonal verbs.)

- (53) Pedru "känkänän nai-n zei-kua"  
 Pedro jungle walk-impfv go-must

nä-kä-ža-n-ame'  
 10-periph-say-dist-because

'because Pedro Arias said to me "Let's go hunting."...'

- (54) Kusarí džumena pa na keiwí tšua-na-rua.  
 deer unsought flat cop right.away see-dist-1S

'I unexpectedly saw a deer lying down.'

**2.3.7 Copular verbs.** The set of copular verbs includes **nan**, **zan**, **zanik** 'become,' and **kawa**. Descriptive clauses (with an adjectival complement) use all of these copular verbs, depending on the particular adjective involved.

- (55) Juan kui'ma na ni.  
 Juan young cop cert

'John is young.'

- (56) Ingí nä-kaw-ame',  
 little 10-seem-because

'Because I am small,...'

(57) Meina-ri ouró zar-in.  
gully-top deep cop-wit

'The gully is deep.'

(58) sinki än-zanis-i  
late pt.ref-became-while

'getting late'

Equative clauses (with a nominal complement) use **nan** as copula:

(59) Kažatani kăbirdu na ni.  
Cayetano cabildo cop cert

'Cayetano is the cabildo (a political office).'

**nan** is optional for statements true in the present.

(60) Eima guioma geirota ni.  
this snake coral.snake cert

'This snake is a coral snake.'

Clauses indicating location or position use both **nan** and **zan** as the copula.

(61) Guiadžina-ri ei tšo nar-e',  
puma-top thus standing cop-then

'The puma was standing,...'

(62) Ranta kuă-ž-aba' guin zan-ändi,  
danta live-med-loc ? cop-if

'If it is where the danta (animal) lives,...'



**2.3.8 Auxiliary verbs.** The auxiliary verbs include **nan**, **nuk**, and **u**. **nan** is used in the next verb after the negative and modal suffixes. **nuk** occurs as an auxiliary verb with progressive and perfect tense/aspect. **u** is used for virtually all the remaining cases; it has two allomorphs: **u** before consonant-initial suffixes and **aw** before vowel-initial suffixes. (Section 5.1 outlines the circumstances in which auxiliary verbs occur.)

## **2.4 Adverbs.**

The category of adverbs includes words that specify manner (e.g. **māni** 'rapidly,' **keiwi** 'right away,' **eigui** 'again,' **eiki** 'still'); relative time words (**iwa** 'now/today,' **sai** 'yesterday'); absolute time words (**džuiku** 'noon,' **sinki** 'after sundown' (probably borrowed from Spanish **las cinco** 'five o'clock'); days of the week borrowed from Spanish (**runiba** 'Monday,' **bierne** 'Friday'); and location words (**wareki** 'up high,' **žakki** 'over yonder,' **wamisárigān** 'at the head of').

One series of adverbs indicates how many times an action is performed: **i'māni** 'one time,' **mú'muru** 'two times,' and **máimuru** 'three times.' Other adverbs modify adjectives, e.g. **ingi diwān** (little different) 'a little bit different,' **ingi mātšei** (little close) 'fairly close to,' and **ingumān diwān** (lot different) 'very different.' These adverbs always occur to the left of the adjective they modify.

Another element serving as an adverb is a phrase which compares how two actions are performed. Such an adverbial phrase is in parentheses in 63:

- (63) (Teréfono nar-i ) "tininin" keiwì i-e'-ri,  
 telephone be-while ring right.away say-then-top

'It rang like a telephone does, ...'

## 2.5 Pronouns.

The set of personal pronouns distinguishes first, second, and third person, singular and plural. Personal pronouns do not occur very frequently in text; they occur occasionally in subject position, very rarely in object position, and most frequently as the object of a postposition, e.g., **ma-sin** (you-with) 'with you' and **niwi zei** (we genitive) 'our.' Table 5 gives the personal pronouns.

	Singular	Plural
1	năn	niwi
2	ma	miwi
3	a	ikăna'

**Table 5 Personal pronouns.**

The infrequent pronoun **manănka'** is a first person inclusive form (Hugh Tracy, personal communication) whereas **niwi** would usually be used exclusively. Landaburu 1985 mentions that **manănka'** is sometimes used as an indirect form for 'you' in reference to the defendant in trials. The

personal pronouns, with the exception of the third person forms, are closely related to the object prefixes (see section 5.2).

Demonstrative pronouns distinguish distance, and deictic versus anaphoric reference. Table 6 lists the most common demonstrative pronouns.

āža	'this/that one'	(anaphoric)
eima	'this/that one'	(being pointed to)
žama	'that one'	(choice among alternatives)
žika	'that one there'	(alternative farther away)

**Table 6 Demonstrative pronouns.**

āža is used anaphorically while eima refers to something in the physical context. eima and either žama or žika are used in contexts involving a choice among alternatives:

(64) Bema            me-'džun-o, kua eima            kua žama?  
       which.one 20-want-ig or this.one or that.one

'Which one do you want, this one or that one?'

Using žika 'that one there' rather than žama would indicate that the second alternative is farther away than the first one.

There are a number of interrogative pronouns, used in content questions (information questions; see section 6.2.2).

## 2.6 Noun adjuncts.

Elements commonly found in noun phrases are quantifiers, articles, adjectives, and numbers. Noun phrases may also have case markers. Two quantifiers are *žou* 'all' and *im̄i* 'much.' Ika generally does not mark definiteness, but the demonstrative pronoun *eima* 'this/that' may be used to indicate definiteness. Further, the numeral *in'gui* 'one' is at times used to indicate indefiniteness. Finally, the topic marker *-ri* is commonly found on noun phrases.

Ika numbers operate on a decimal system. There are single words for 1 to 9 and phrases for the numbers 10 to 99. The number phrase gives the number of tens first, followed by the number of ones.

(65) *mouga uga in'gui kättou*  
 two tens one ones

'21'

By borrowing Spanish numerals (e.g. *sientu* '100'), it is possible to compose numbers above 100, but in general the Spanish system is coming to be used more than the native Ika system. (All of the noun adjuncts are discussed further in chapter 3; case marking is covered in chapter 4.)

## 2.7 Verb adjuncts.

Among the elements found in the verb phrase are main verbs, auxiliary verbs, adverbs, and verb affixes. The verb affixes include person marking prefixes and suffixes (both subject and object), the negative suffix, modal suffixes, temporal aspect suffixes, deictic aspect suffixes, clause connecting suffixes (indicating subordinating or coordinating relationships), and mood markers. (Most verb adjuncts are discussed further in chapter 5; clause connecting suffixes and mood markers are discussed in section 5.5.2 and chapters 6 and 7.)

## 2.8 Conjunctions.

There are few conjunctions. Adjectives and nouns are conjoined only by **sin** 'with'; **sin** marks the second item in the conjoined phrase. Clauses are conjoined by means of clause connecting suffixes in the verb phrase optionally followed by one of the three clause combining conjunctions: **pari** 'from that point,' **guanti** 'finally,' or **nāngua** 'and.'

## 2.9 Postpositions.

Postpositions in Ika serve at least two functions: case marking (ergative, locative, genitive, indirect object, limitative, instrument, accompaniment), and locational/positional relationships (e.g. under, from). Some postpositions are independent, stress-bearing words, but most postpositions cliticize to the preceding word. (At least one, *zã* 'genitive,' sometimes attaches to the following word. See chapter 4 for more detail on postpositions.)

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1. Adolfo Constenla helped clarify my thinking on impersonal verbs.

### 3. THE NOUN PHRASE.

This chapter summarizes the roles of the following in noun phrases: quantifiers, numerals, adjectives, articles, casemarking, and nouns used attributively. Section 2.5 summarizes personal and demonstrative pronouns. Chapter 4, on case marking and post-positional phrases, discusses the genitive and gives more detail on case marking. Section 8.1 discusses relative clauses.

#### 3.1 Quantifiers.

Quantifiers follow the head noun in noun phrases. Table 7 summarizes the quantifiers.

džina	'plural'
imì	'many/much'
ingì	'a little'
re'masi	'many' (used only with animates)
sämmì	'much' (used only with inanimate objects)
žou	'all'

**Table 7 Quantifiers.**

Examples of the quantifiers are **yua ingì** (blood little) 'a little blood,' **perì imì** (dog many) 'many dogs,' **urakì žou** (house all) 'all the houses,' **akunsi sämmì** (cooked.food much) 'much cooked food,' and **ikì re'masi** (person many) 'many people.' Nouns are not marked as singular or plural, but the quantifier **džina** 'plural' conveys the idea of 'more than one' without specifying any absolute or relative quantity: **nā-gunamì džina** (1-worker plural) 'my workers.'

Another type of quantifier is a noun phrase which indicates some type of measure, e.g. **mouga kintari** (two sack) 'two sacks' in the following noun phrase:

(66) in mouga kintari  
corn two sack

'two sacks of corn'

The nouns indicating measure are generally ones borrowed from Spanish.

Ika	Spanish	English
kintari	quintal	sack
paketi	paquete	package
metru	metro	meter
ribra	libra	pound
karga	carga	load

Two native words used in quantifier phrases are **adžu** 'whole,' as in **mākkā in'gui adžu** (clothes one whole) 'a whole (change of) clothes,' and **džuna** 'kind,' as in **mouga džuna inguānā** (two kind path) 'two kinds of paths.'

### 3.2 Numerals.

Ika numerals operate on a decimal system. The numbers one to nine are as follows:



in'gui	'one'
mouga	'two'
máikāni	'three'
ma'keiwa	'four'
asewa	'five'
tšinwa	'six'
koga	'seven'
abewa	'eight'
ikawa	'nine'

**Table 8 Ika numbers 1-9.**

Beyond nine, numbers are made up of the number of tens, **uga**, followed by the number of ones, **kättou**:

(67) in'gui uga mouga kättou  
 one tens two ones  
 'twelve'

For numbers between ten and twenty, **in'gui uga** is optional:

(68) ma'keiwa kättou  
 four ones  
 'fourteen'

By borrowing Spanish numerals (**sientu** '100,' **mir** '1000'), it is possible to compose numbers above ninety-nine, e.g. **sientu mouga uga** (100 two tens) '120.'

Juxtaposing two successive numbers indicates an imprecise amount within the range of the two numbers:

(69) mouga máikāni kaggi  
 two three year  
 'two or three years'

Numbers may either precede or follow the noun head, depending on whether the reference is definite or indefinite.<sup>1</sup> Numbers appear before the noun in indefinite reference and after the noun in definite

reference. For example, 70 is an indefinite reference to 'man' as the participant is first introduced into the story:

(70) In'gui tšeirua-se'-ri wakuma-ri guako-u-na.  
 one man-erg-top skunk-top kill-aux-dist

'A man killed a skunk.'

In 71, however, the reference to 'one dog' is definite; the previous sentence stated that 'the dog did not come back,' and 71 recapitulates that clause:

(71) Perì in'gui eigui nak-u'-nän u-ž-e' nängua-ri,  
 dog one also come-neg-aux aux-med-then and-top

'The one dog did not come back, and then...'

Again, 72a and b contrast an indefinite and definite reference, respectively, involving the number 'two.' 72a is at the beginning of a story, and the reference of the phrase 'two men' is indefinite, while 72b is at the end of a story, summing up events involving known participants:

(72) a. Mouga tšeirua-ri meina ri-zori-e'-ri,  
 two man-top stream 3plS-go-then-top

'Two men went along the stream,...'

b. Tigri perì mouga nã-kã-gga a-u' no?  
 jaguar dog two 10-periph-eat aux-neg ig

'The jaguar ate my two dogs, didn't it?'

Numbers may head noun phrases; these refer to a specific number of items out of an already specified group.

(73) Iwa mouga-ri awa'rei zoža-na.  
 now two-top below go-dist

'Two (men) went below.'

### 3.3 Adjectives.

Adjectives and adjective phrases follow the head noun in a noun phrase, e.g., **ye kǎnta** (water warm) 'warm water' **untǎ zirǎ** (hair fluffy) 'fluffy hair (of a dog),' and **kakarón aroma** (shotgun.shell empty) 'empty shotgun shell.' Rather than occurring alone (as in these cases), most adjectives occur with **kawa** 'seem' in an adjective phrase:

(74) **tutu tuí kawa**  
 wool.bag black seem

'black wool bag'

(75) **ye kǎ kawa**  
 water cold seem

'cold water'

(76) **paka awǎn' kawa**  
 cow big seem

'big cow'

Repetition of an adjective indicates a greater degree of the quality:

(77) **tšukkui tšǎmmi tšǎmmi kawa**  
 rat yellow yellow seem

'a very yellow rat'

(78) **untǎ zirǎ zirǎ**  
 hair fluffy fluffy

'very fluffy hair'

By attaching the postposition **sin** 'with' to a second adjective phrase, it is possible to modify one noun with two adjectives.

- (79) tutu        bunsí kawa tuí    kawa-sin  
 wool.bag white seem black seem-with  
 'black and white wool bag'

### 3.4 Articles.

Although there are no articles per se, the demonstrative pronoun **eima** 'this one' occasionally serves to indicate definiteness and the number **in'gui** 'one' to indicate indefiniteness:

- (80) **Eima** kusári-ri    an-a-g-u'-nän                      u-na.  
 this deer-top    pt.ref-12plS-eat-neg-aux aux-dist

'We did not eat the deer.'

- (81) **In'gui** tšeirua-se'-ri    wakuma-ri    guako-u-na.  
 one    man-erg-top        skunk-top    kill-aux-dist

'A man killed a skunk.'

### 3.5 Case marking.

Case markers cliticize to the right-most element of the noun phrase. In example 82 **sin** 'with' attaches to the end of a noun phrase made up of a possessor phrase and head noun:

- (82) (bunatší    zä-gei )-sin  
 white.man gen-fire-with

'with the whiteman's fire'

For more detail on case marking, see chapter 4.

### 3.6 Nouns as modifiers.

Nouns sometimes modify other nouns attributively, e.g. **trapitši kǎn** (press wood) 'wooden sugar cane press' (**trapitši** is a noun borrowed from Spanish **trapiche**). A more complex example involves a noun phrase modifying a noun (the head noun is in bold):

(83) **perǎ** (džo' motšu)  
       dog tail broken

'short-tailed dog'

(**motšu** is an adjective borrowed from Spanish **mocho**)

In cases such as these, the noun that modifies usually follows the head noun, following the pattern of adjectives.

- 
1. Adolfo Constenla suggested to me that definiteness correlates with the order of number and noun, parallel to a distinction in definiteness based on adjective/noun order in Chibchan languages of Costa Rica.

#### 4. Case Marking and Postpositional Phrases.

Case marking is handled by means of postpositions and includes ergative, locative, genitive, instrument, accompaniment, means, and limitative cases. By 'case' I mean the role of a noun phrase within a clause as overtly indicated by a postposition. The postpositions marking these relationships are mono-syllabic and are phonologically bound forms, with the exception of **zei** 'genitive' in some circumstances. I will write these phonologically dependent postpositions in isolation with a hyphen in parentheses, e.g. (-)sin 'with' to symbolize their phonologically bound but grammatically independent status. With the exception of **zei**, they appear cliticized to the last word of the phrase to which they pertain. (**zei** 'genitive' sometimes cliticizes to the beginning of the next word in the sentence, and at other times stands as a separate word). Other postpositions mark positional relationships, e.g., 'under' or 'on top of.' These forms are bi-syllabic and are independent, stress-bearing words.

More than one postposition may occur on a single noun or nominalized clause. For example, **pai** 'from' usually combines with a time or locative word in an expression meaning 'from that point on.' The locative word may be one formed by a noun-postposition combination, resulting in two postpositions in a row:

- (84)
- 
- ```

      graph TD
      PP --> NP
      PP --> L1[ ]
      NP --> Eim[ (eim-ekš) ]
      NP --> Pari[ pari ]
      Eim --- Pari
      Pari --> That[ that-loc ]
      Pari --> From[ from ]
  
```
- (eim-ekš) pari  
that-loc from
- 'from there'

Example 85 provides a similar case but contains a nominalized clause rather than a noun (see sections 4.4, 4.5 and 8.2 for more on locative nominalized clauses):

- (85) ((awion wa'nä-ž)-eki)-kin  
airplane fall-med-loc-lim

'As far as the airport (where the airplanes fall)'

Note that in both of these examples, the inner postposition serves as a nominalizer, and the outer postposition thus attaches to a nominal element rather than to another postpositional phrase.

The genitive marker *zei* may occur embedded in a noun phrase which is in turn marked for some other case, but the outer case-marker does not apply directly to the phrase with the genitive:

- (86)
- 
- ```

      graph TD
      PP --> NP
      PP --> L1[ ]
      NP --> POSS
      NP --> L2[ ]
      POSS --> Bunat[ ((bunatšš zä-) ]
      POSS --> L3[ ]
      Bunat --> Whiteman[ whiteman ]
      Bunat --> Gen[ gen- ]
  
```
- ((bunatšš zä-) gei) -sin  
whiteman gen- fire -with
- 'with the whiteman's fire'

The genitive and noun form a possessor phrase which combines with another noun to form the noun phrase, and it is this noun phrase that takes (-)sin 'with.'

The following sections explain the function(s) of each postposition, beginning with the bound, case-marking forms and ending with the phonologically independent forms indicating positional relationships. The genitive marker, *zei*, which is sometimes bound and sometimes free, stands between the other two main groups.

#### 4.1 (-)se' 'locative, source/goal, ergative'.

The postposition (-)se' serves a variety of functions, including marking locative, (both source and goal) and ergative. As a locative marker, (-)se' indicates movement toward or away from a location that is close by, movement into an area, or a position at or on the specified item. (In the following examples the word or phrase to which the postposition pertains is in parentheses.)

(87) (urákí)-se' káčar-i  
house -loc arrive-while

'arriving at the house'

(88) (A'kättí)-se' kámätša-na.  
cave -loc enter-dist

'It went into a cave.'

(89) Anga tuí kawa (ka')-se' a'sä-ža.  
bee black seem ground-loc live-med

'Black bees live on the ground.'

The use of (-)se' to mark source or goal in transactions is obviously related to its use in marking direction of movement. With some transactional verbs (e.g., *ängeik* 'sell' and *a'be* 'deliver') the recipient is marked by (-)se':



(90) Abran-di (Huan)-se' kafé a'be u-ž-in.  
 Abran-top Juan -loc coffee deliver aux-med-wit

'Abran delivered coffee to Juan.'

One characteristic of the verb a'be 'deliver' is that it marks the recipient as the locative. The coffee goes from Abran to Juan-locative. With other verbs (e.g., san 'buy'), the source, rather than the recipient, is marked by -se':

(91) Juan-di (Abran)-se' kafé k-i-sana u-ž-in.  
 Juan-top Abran -loc coffee periph-?-buy aux-med-wit

'Juan bought coffee from Abran.'

Thus, one of the grammatical facts concerning san 'buy' is that it marks the source of the transaction as the locative. Each verb depicting a transaction, then, specifies whether the source or the recipient will be marked by (-)se' 'locative.'

Transitive clauses sometimes show the subject noun phrase marked by (-)se'.

(92) (In'gui tšeirua)-se'-ri wakuma-ri guako-u-na.  
 one man -erg-top skunk-top kill-aux-dist

'A man killed a skunk.'

Tracy and Levinsohn (1977) suggest that this use of (-)se' marks a subject noun phrase referring to a non-topical participant. I will argue, in section 9.3, that ergative marking is controlled by the pragmatic status of the agent relative to the object. When each participant is ranked on a scale involving the given-new distinction, an overt agent noun phrase is ergative-marked when it is less given than the object. With regard to the alignment of ergative with locative, note that in many of the ergative languages of Australia, the ergative

and locative markers are either identical or similar in form (cf. Dixon 1976:313, Blake 1977:51).

#### 4.2 (-)sin 'instrument, accompaniment, and conjunction'.

**(-)sin** 'with' marks instrument noun phrases, indicates accompaniment, and serves as a means of conjoining noun and adjective phrases. 93 illustrates **(-)sin** marking an instrument noun phrase.

(93) Kānsia-sin si a'sir-i,  
vine -with string tie-while

'He tied it with a vine,...'

94 illustrates the use of **(-)sin** to indicate accompaniment:

(94) José-ri Pedru-sin än-zuei-' nar-i-ri,  
José-top Pedro-with pt.ref-go-neg aux-while-top

'José did not go with Pedro,...'

Note that to say that José did not go does not imply that Pedro also did not go, only that they did not go together. Thus the scope of the negative is the subject noun phrase only, and does not include the accompaniment phrase.

Conjoined noun phrases are not very frequent but are constructed by attaching **(-)sin** to the second conjunct, as in the following:

(95) Pedru-ri a-sin-di gunnā win-de's-i,  
Pedro-top he-with-top hand 3plS-agree-while

'Pedro Arias and he agreed,...'

In a conjoined noun phrase, the noun that does not bear **(-)sin** 'with' grammatically heads the phrase. This is rarely a matter of concern, but with bitransitive verbs meaning 'to put something down' the shape of the

unmarked noun in a conjoined noun phrase controls the selection of verb (see section 5.3.2). Compare the verb used in 96a with the verb used in 96b and c:

- (96) a. Rapi gako-u!  
pencil put.down-aux  
'Put the pencil down!'
- b. Ribru pa ú!  
book put.down aux  
'Put the book down!'
- c. Ribru rapi-sin pa ú!  
book pencil-with put.down aux  
'Put the book and pencil down!'

Adjective phrases may also be conjoined by **(-)sin**. (As with noun phrases, such constructions are not common.)

- (97) tutu bunsí kawa (tuf kawa)-sin  
wool.bag white seem black seem -with  
'black and white wool bag'

#### 4.3 **(-)ikin** 'limitative'.

**(-)ikin** 'limitative' indicates the end point of a period of time or space, indicating 'up to this point/time and no further.' **(-)ikin** typically occurs with locative constructions including clauses with locative marking meaning 'where X happens,' as in 98:

- (98) Eim-eḳi pari-ri žóu-kitṣ̌i zán' wa'kã-zar-i  
that-loc from-top all-emph just see-aux-while

(awión wa'nã-ž-eḳi)-kin.  
airplane fall-med-loc-lim

'From there you can see everything, as far as the  
airport (where the airplanes fall).'

#### 4.4 (-)eḳi 'locative'.

The postposition (-)eḳi 'locative' cliticizes to nouns and clauses to indicate a location, especially one relatively far away. (-)eḳi occurs frequently with demonstrative pronouns (e.g. eima 'that one') to form a location word meaning 'there' or 'in that place':

- (99) Eim-eḳi itšun-nik-ž-e'-ri,  
that-loc go.up-when-med-then-top

'When it goes up there,...'

(-)eḳi occurs with nouns naming features of the landscape to form an adverb of location, often a destination for motion verbs:

- (100) Kãnkãna-ḳi keiẉi zoža-na.  
forest-loc right.away go-dist

'He went to the forest.'

(-)eḳi also occurs with words indicating position, e.g. bãkãna-ḳi (middle.of-loc) 'far off in the middle of,' awa'r-eḳi (below-loc) 'far off down below.'

(-)eḳi also cliticizes to the ends of (verb-final) clauses without mood marking to nominalize the clause as naming a location. The

nominalized clauses are usually stative or imperfective rather than referring to a specific, bounded event.

- (101) (A'kätti awän' kawa nuk-ž )-eki itšor-e'-ri,  
cave big seem cop-med-loc go.up-then-top

'He went up to where there is a big cave,...'

- (102) (Pér-i-se' kā-dan-än nuk-ž )-eki  
dog-erg periph-bark-impfv aux-med-loc

mätšei kätšar-e'-ri  
near arrive-then-top

'(They) arrived near where the dog had been barking at something,...'

With certain nouns, the formative **-si** comes between the stem and **-eki**; e.g., **uraki** 'house,' but **uraki-si-ki** (house-null-loc); **ye** 'river,' but **ye-si-ki** (river-null-loc). It is tempting to consider **-si** as a meaningful element segment, but there is no context where a contrast between **-si** and another suffix or the absence of a suffix shows any semantic difference. In examples, I will segment **-si** as part of the locative suffix.

#### 4.5 (-)aba' 'location' and 'time'.

The postposition **(-)aba'** has three main uses: (i) a case marker for temporal expressions, (ii) a locative marker for demonstrative pronouns, and (iii) a clause nominalizer for specifying the location where something happened. The combination of **in-i** 'who/what' and **(-)aba'** produces an interrogative word **iniba'** meaning 'when.' **(-)aba'** also

occurs on words referring to days of the week (borrowed from Spanish), e.g. **runi-ba** 'Monday-time' 'Monday/on Monday.'

**(-)aba** has many of the same uses as **(-)eki** as a locative marker. Both may occur with demonstrative pronouns to form a word meaning 'there.' 103 gives a case of **(-)aba** with a demonstrative pronoun.

(103) **Až-aba** keiwî kätšar-i,  
that.one-loc right.away arrive-while

'(They) arrived there,...'

**(-)eki** and **(-)aba** also both nominalize clauses to name a location. With **(-)aba**, however, the embedded clause always involves an action (rather than a state), especially an action involving motion.

(104) I'män-eigui (tas-i zoža-n)-aba' kätšar-e'-ri,  
once-also look.for-while go-dist-loc arrive-then-top

'He arrived once again at the place from which he had gone looking,...'

The difference between **(-)aba** and **(-)eki** may hinge on the nature of **(-)eki** as deictic and distal. That is, **(-)eki** points to a specific fixed distant place while **(-)aba** merely names a place. This can be seen, for example, in the frequent co-occurrence of **aža** 'that one' with **(-)aba**, while **eima** 'that one pointed to' more frequently co-occurs with **(-)eki**. As demonstrative pronouns, **aža** and **eima** differ in that **eima** points to a specific thing while **aža** serves for anaphoric reference.

#### 4.6 -n 'by means of'.

The formative **-n** 'by means of' indicates to do something 'by means of' the noun so marked.<sup>1</sup> For example, **kättä-n** (foot-by.means.of) 'by foot' describes a way of traveling. **-n** also combines with language names to specify 'in that language':

(105) Bunatšä-n-di        azi a-guak-o?  
       Spanish-means-top how 12plS-say-ig

'How do you say it in Spanish?'

Other examples are **ikä-n** (Ika.language-means) 'in Ika,' and **peibu-n** (Kogi.language-means) 'in Kogi.'

#### 4.7 zei 'genitive'.

The postposition **zei** marks the genitive case. The genitive is used to indicate part-whole, kinship, and ownership relationships. More generally, the genitive is used to indicate that two nouns are inherently or permanently related to one another. The genitive marker always follows the possessor noun, and this phrase either precedes or follows the possessed noun. In the examples which follow, the possessor phrase is bracketed.

When the genitive is used to express kinship relations, the 'possessed' item is a kin term while some other noun, marked by the genitive, indicates to whom the kin term pertains:

(106) (Marta zä-)tšeitš'i  
Marta gen-father

'Marta's father'

(107) (nä'än ze) a'mia  
I gen woman

'my wife'

In the part-whole use of the genitive, the head noun is the part and the genitive-marked noun is the whole:

(108) (urak'i zä-)kätt'i  
house gen-foot

'house's main posts'

(109) (per'i zä-)džua  
dog gen-blood

'dog's blood'

In phrases expressing ownership, the head noun is the possessed item and the genitive-marked noun is the possessor:

(110) (nivi ze) tutusoma  
we gen hat

'our hats'

In examples involving ownership, the possessor phrase is much more likely to follow the possessed item:

(111) tšinu (in'gui ze)  
pig one gen

'someone's pig'

Some uses of the genitive do not clearly fall under the headings kinship, part-whole, or ownership. For example, in 112, the 'possessed' noun is the **pau** -- the 'owner' or 'master':



(112) (aná'nuga zǎ-)pau  
 animal gen-owner

'animal's owner'

In another case, **bunatsǎi zǎ-gei** (whiteman gen-fire) 'whiteman's fire,' this type of fire is neither part of nor owned by but simply is the whiteman's. It is in this sense that the genitive marks an inherent or permanent relationship that usually (but not always) involves kinship, part-whole, or ownership.

The examples above illustrate two forms of the genitive marker, **zei** and **zǎ**. Given the order 'possessor genitive possessed,' **zei** appears as a prefix **zǎ** on the possessed noun whenever that noun is one syllable, or generally when it is shorter than the possessor. When the possessed is longer than the possessor, or when the order is 'possessed possessor genitive,' **zei** stands as a phonologically independent word and bears stress.

#### 4.8 **pari** 'from'.

The postposition **pari** indicates the beginning of a time period or the location from which an action is directed. The phrase **mouge' pari** (day.after.tomorrow from) conveys the idea of 'from the day after tomorrow on,' and **birin pari** (long.ago from) refers to a time span that began long ago, extending toward the present.

In the sense 'the location from which an action is directed,' **pari** often occurs with locative words. In 113, **pari** marks a place from which one can see:

(113) (Eim-ekì) pari-ri žóu-kítšì ză' wa'kă-zar-i,  
 that-loc from-top all-emph just see-aux-while

'From that place, one can see everything,...'

**pari** also occurs at the ends of dependent clauses (i.e., as the last word in the verb phrase). One translation of **pari** in this usage might be 'X happened; from that location, Y.' Often there is a shift in perspective immediately after **pari**, and the event marked by **pari** may be viewed as a climax (of episode), as illustrated in 114. (The postposition is underlined and the clause it marks is in parentheses.)

(114) ("Anneki, zéi-'-kítšì nánn-ākua ni" ke-i-e') **pari-ri**,  
 no go-neg-emph aux-must cert periph-say-then from-top

José-ri Pedru-sin än-zuei-' nar-i-ri,  
 José-top Pedro-with pt.ref-go-neg aux-while-top

'"No, you must not go!" he told him, so from that time on José did not go with Pedro,...'

#### 4.9 zani 'to be from'.

**zani** combines with a noun to define a place or time that is characteristic of something. A typical use of **zani** is to define a person's home.

(115) a. Beku zani nă-năn-ku-e?  
 Where from 2S-cop-med-ig

'Where are you from?'

b. Jordán zani na-ru-in.  
 Jordán from cop-1S-wit

'I am from Jordán.'

(Incidentally, 'where one is from' here refers to a person's home, not where he is currently living nor where he was born and raised.)

One case of **zani** with a time word, **birin zani** (long ago from), presumably refers to something associated with times past, rather than, as would be the case with **pari**, a time period beginning long ago and extending toward the present.

#### 4.10 Other markers of position.

A number of other postpositions indicate position. **Teki** indicates a location 'on top of' or 'in the top of' with respect to the noun so marked. For example, **a'ni teki** (rock top.of) means 'on top of the rock' and **kān teki** (tree top.of) means 'in the top of the tree.' Two other indicators of position are **āndin** 'under' as in **ka' āndin** (ground under) 'underground,' and **a'titēi** 'above.'

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1. I have only seen **-n** attached to single nouns, not to phrases, but because noun morphology is otherwise virtually non-existent, I have included the form with the postpositions.

## 5. THE VERB PHRASE.

The major topics of concern in discussing the Ika verb phrase include auxiliary verbs, agreement, aspect, mood, and valence change. Section 5.2 covers agreement as understood in the normal sense of referencing arguments of the verb by means of verb affixes. Section 5.3, "Locationals and noun classes" discusses another type of agreement involving a restricted noun class system as reflected in the predicate. The section on valence change (5.7) covers various operations which affect the number of participants referenced in the verb phrase: causatives, benefactives, reflexives and reciprocals, and a prefix which enables the object prefixes to refer primarily to non-direct objects and possessors. A final section discusses the functions of the prefix *an-* 'point of reference.'

The following formula gives the relative order of the major groups of elements in the verb phrase:

lexical-verb (negative) (temporal aspect) (modal suffixes)  
(deictic aspect, mood/clause connectors)

The lexical verb stem itself is the only obligatory element in the verb phrase. Parenthesized elements sometimes have no overt marker in a given case, though this  $\emptyset$  choice may have a particular significance (e.g.,  $\emptyset$  temporal aspect implies 'perfective'). There are four parenthesized groups. If the negative suffix occurs, it comes immediately after the lexical verb. The temporal aspect markers form the second group (section 5.4). The modal suffixes form the third group

(section 5.5.1). Deictic aspect and mood indicators or clause connectors form the fourth group (sections 5.6 and 5.5.2).

There are certain co-occurrence restrictions among the suffixes in the verb phrase, though the full extent of these restrictions is not known. For example, the modals **-ngua** 'will' and **-nguasi** 'in order to' must follow a verb marked by **-ān** 'imperfective' and **-iza** 'would' usually does so as well.

Agreement affixes have no fixed location in the verb phrase. Among the subject affixes, the prefixes occur at the beginning of the phrase, and the one suffix occurs at the end (**-rua** 'first person singular subject'). The object markers may appear in two places. Ordinarily they appear on the lexical verb, immediately following the subject prefix (if any), but with the modal verb/suffix **-ngua** 'will,' object markers reference the subject of the clause and appear prefixed to **-ngua** medially in the verb phrase. (The section below on agreement gives examples of all the agreement affixes; section 5.5.1.5 gives more detail on **-ngua** and its use of the object prefixes.)

### 5.1 Auxiliary verbs.

Auxiliary verbs occur in five environments. Firstly, stressed, uninflected auxiliary verbs occur in imperatives (see section 6.3 below, in the chapter on clause formation). Secondly, auxiliary verbs occur in sentence introducers, supporting deictic aspect and clause connecting suffixes. These suffixes show the relationship between the final clause

of the previous sentence and the first clause of the sentence which the introducer initiates (see section 7.3, in the chapter on sentence formation). Thirdly, auxiliary verbs occur in questions which help keep conversation flowing, as in 116. (The auxiliary verb in focus is in bold, in 116b.)

- (116) a. "Eiki nik-u' nän-no?" na-'zar-i  
 thus work-neg aux-ig 10-think-while  
 eimai nako-u-w-in.  
 by.here come-aux-prox-wit  
 'I have come thinking "He is still working,  
 isn't he?"'
- b. Kua, eimei ki na-u-ku-e?  
 oh like.this cntr 2S-aux-med-ig  
 'Oh, did you (come) like that?'

The last two uses of auxiliary verbs involve the structure of the verb phrase itself and will be covered in the next two sections. Auxiliary verbs obligatorily occur in the verb phrase to support suffixes which are prevented from appearing on the main verb and optionally occur under specific pragmatic conditions to produce a phrase with an uninflected main verb followed by an auxiliary verb.

**5.1.1 The obligatory use of auxiliary verbs.** The obligatory use of auxiliary verbs in the verb phrase is controlled by the groups of elements discussed in the introduction to this chapter. The formula given there shows the lexical verb as the first element in the phrase, optionally followed by suffixes from four groups:

lexical-verb (negative) (temporal aspect) (modal suffixes)  
 (deictic aspect, mood/clause connectors)

As a general rule, the four groups are mutually exclusive: suffixes from more than one group do not appear together on a single verb. Thus, if both a temporal aspect suffix and a modal suffix occur in the same verb phrase, for example, the lexical verb carries the temporal aspect and the auxiliary verb supports the modal suffix. A major function of auxiliary verbs, then, is to support additional suffixes when suffixes from more than one group occur in a given verb phrase.

In 117, the first verb carries the modal suffix **-ikua** 'must,' and the auxiliary verb **nan** (reduced to **n** in this case) carries the clause connecting suffix **-ame** 'because.' (The suffix **-kuma** 'impersonal' does not enter into the concept of mutually exclusive groups in the verb phrase, but may combine with suffixes from any group; for more on its function, see section 9.2)

(117)            MODAL      AUX-CONNECTOR  
 mi-u-kum-ökkua    n-ame'  
 20-do-impers-must be-because

'it had to be done to you because . . .'

118 shows a verb phrase in which the lexical verb carries the temporal aspect suffix **-akí** 'perfect' while the auxiliary verb carries the deictic aspect marker **-na** 'distal.'

(118) TEMPORAL    AUX-DEICTIC  
 guak-akí    nu'-na  
 kill-perf aux-dist

'it had killed it'

The negative suffix **u'** requires that the following auxiliary verb (if needed) be **nan**. In 119, the lexical verb carries the negative, the first auxiliary verb carries **-än** 'imperfective,' and the modal **-ngua** 'will' serves as its own auxiliary. (See section 5.5.1.5 below for more on the verb-like nature of this modal.)

(119)	NEGATIVE	AUX-TEMPORAL	AUX-MODAL
	nik-u'	nan-än	nä-ngua
	work-neg	aux-impfv	10-will

'I will not work'

Other suffixes besides the negative also place restrictions on the choice of the following auxiliary verb. **-akí** 'perfect' and **-än** 'imperfective' (when it is not followed by 'will') require that the following auxiliary be **nuk**. Most of the modal verbs require **nan** as the next auxiliary verb, although **-ikuei** 'able to' appears to select either **nan** or **zan**.

**5.1.2 The optional use of auxiliary verbs.** The auxiliary verb **u** may optionally occur in the verb phrase to produce a phrase with an uninflected verb stem.<sup>1</sup> The optional auxiliary verb follows immediately after the uninflected verb. The lexical verb is usually the uninflected verb in such phrases. Native speakers do not indicate that there is any difference in meaning between verb phrases with and without optional auxiliary verbs, but it appears that the function of optional auxiliaries is to give pragmatic emphasis to the main, lexical verb. Most of the examples below contrast two clauses, the first one without





not the main verb, is uninflected. (The uninflected **nan** cliticizes to the preceding verb.)

- (122) a. LEXICAL-NEG AUX-DEICTIC  
 Nā-zei-' nān-na.  
 2S-go-neg aux-dist

'You did not go.'

- b. LEXICAL-NEG-AUX AUX-DEICTIC  
 Ka'chon-u'-nān u-na.  
 find-neg-aux aux-dist

'He did not find it.'

Optional auxiliaries may also occur in verb phrases which already contain an obligatory auxiliary verb, as described in the previous section. Both 123a and b have a modal suffix followed by an obligatory auxiliary verb carrying the remaining suffixes in the phrase. In 123b, an optional auxiliary also occurs in the phrase, leaving the main verb with no suffixes:

- (123) a. LEXICAL-MODAL AUX-CONNECTOR  
 Eimei mi-u-kum-ākkua n-ame',  
 like.this 20-do-impers-must aux-because

'It had to be done to you like this because...'

- b. LEXICAL AUX-MODAL AUX-CONNECTOR  
 Nā-zoža aw-iza na-ndi,  
 2S-go aux-would aux-if

'If you were to go...'

The feature common to all verb phrases with optional auxiliary verbs is that the lexical verb is separated towards the left, optionally taking only the negative suffix, with the remainder of the grammatical material occurring to the right on auxiliary verbs. This grammatical organization serves to highlight the main verb, and optional auxiliary

verbs are especially common in cases where the verb itself constitutes the new information in the clause.<sup>2</sup> The chapter on pragmatics contains a fuller discussion of my conception of the pragmatic structuring of Ika clauses; but suffice to say, here, that when the comment portion of a topic-comment pragmatic structure consists only of the verb phrase, that phrase is more likely to contain an optional auxiliary verb, giving added prominence or emphasis to the lexical verb itself.<sup>3</sup>

## 5.2 Agreement.

Agreement in Ika is handled by means of subject and object affixes. Third person plural subject is optionally marked, and third person subject and object are always unmarked, but otherwise, person-marking is obligatory. The subject affixes consistently reference the subject of a clause, but the object prefixes serve a variety of functions. The primary function of the object prefixes is to mark the grammatical object. When the source/goal of bitransitive verbs (e.g., 'buy,' 'sell,' 'give,' etc.) is human, the object prefix refers to that participant rather than the (less animate) object. In conjunction with **kā-** 'peripheral participant,' the object prefixes may reference the possessor of one of the arguments of the verb (see section 5.7.2 below). Finally, the object prefixes are involved in the formation of benefactive markers (section 5.7.3).

Table 9 gives the subject person affixes. First person singular is usually unmarked, but **-rua** 'first person singular subject' occurs in the past and with irrealis forms (e.g., with negatives such as 'I did not go').<sup>4</sup> Third person singular is always unmarked. First and second person plural are both indicated by **a-** 'first or second person plural subject' but, in practice, are distinguishable by mood: first person is usually declarative and second person interrogative (there is no person marking with imperatives). Special contexts are required for the opposite combinations (e.g., first person plural interrogative). **ri-** and **win-** are intransitive and transitive prefixes, respectively, for third plural.<sup>5</sup>

	Singular	Plural
1	∅/-rua	
2	nä-	a-
3	∅	ri-/win-

**Table 9 Subject person affixes.**

The following chart gives a simple paradigm for the verb **tšua** 'see' to illustrate subject person marking. I have given the second person forms as interrogatives, as noted above.

	Singular	Plural
1	tšua-na-rua see-dist-1S	a-tšua-na 12plS-see-dist
	'I saw it.'	'We saw it.'
2	nä-tšua u-ž-e 2S-see aux-med-ig	a-tšua u-ž-e 12plS-see aux-med-ig
	'Did you see it?'	'Did you all see it?'
3	tšua-na see-dist	win-tšua-na 3plS-see-dist
	'He saw it.'	'They saw it.'

One other suffix, **-kuär**, appears to be a first person plural exclusive form. For example, I can say 124 to describe how many siblings there are in my family:

(124) Tsinwa nän-kuära ni.  
six cop-1plexcl cert

'We are six.' or 'There are six of us.'

The context in which this form was elicited made clear that the hearer was not included. Again, excluding the hearer, one can say:

(125) Pablo-sin gou-kuära ni.  
Pablo-with make-1plexcl cert

'Pablo and I (we) made it.'

See section 5.6 for other correlates of subject person in verb morphology.

Table 10 summarizes the object person prefixes on verbs. As with subjects, third person singular object is unmarked.

	Singular	Plural
1	nā-	niwi-
2	mi-	miwi-
3	∅	winā-

**Table 10 Object person prefixes.**

The object prefixes are also used as possessor prefixes on kin terms. With kin terms, however, third person is indicated by **a-**, e.g. **a-tegue** (3-uncle) 'his uncle.'

When subject and object prefixes occur on the same verb, the subject prefix comes first. In 126, the second person subject prefix **nā-** precedes the first person plural object prefix **niwi-** (the final **i** of **niwi-** is lowered to **e** morphophonemically before glottal stop):

(126) Nā-niwe-'zasana ki u-ž-e?  
 2S-1plO-pay cntr aux-med-ig

'Did you pay us?'

The combination of second person subject and first person object (both singular) results in the repetition of the form **nā**:

(127) Bin zan-ikin nā-nā-n-wa'k-än-no?  
 when cop-lim 2S-1O-ben-see-impfv-ig

'How long will you wait for me?'

### 5.3 Locationals and noun classes.

Ika has a minimal noun class system in that the shape of a concrete object determines the choice of verb or predicate nominal in sentences involving existence, location, or the notion 'to put.' The main classes involved are long objects (one dimensional), flat objects (two dimensional), three dimensional objects, liquids, containers, and objects with specialized holders. The grammatical correlates of these classes are different words/verbs chosen according to the category of the item involved (e.g. **gaka** 'to put down long objects,' **pan** 'to put down flat objects').

Dixon lists three characteristics of noun class systems (1982:161):

We can say that the category of noun classes is (1) a grouping of all the nouns of a language into a smallish number of classes, (2) so that there is some overt indication of the class of a noun within any sentence in which it occurs, (3) and this indication is not entirely within the noun-word.

The noun class system in Ika is minimal in that it involves only nouns referring to concrete objects and the noun classes are only relevant in locational sentences. This type of noun class system is similar to that of the Athapaskan languages (Dixon 223).

**5.3.1 Existentials and locatives.** Existential and locative clauses make use of noun class indicator plus copula to indicate existence or location. In 128, **a'kuaskuasi** is the noun class indicator for liquids.

- (128) Tšo'kui-se' dže a'kuaskuasi zina.  
gourd.bowl-loc water liquid cop

'The water is in the bowl.' or 'There is water in the bowl.'

The class indicator for three-dimensional objects is **sa**:

- (129) Akunsi sämmi ən-sá zar-i-ri,  
coçked.food lots ?-3D cop-while-RI

'There was a lot of cooked food,...'

The same noun may occur with more than one class indicator. For example, in one hunting story, **džua** 'blood' occurs in one case with **a'kuaskuasi** to mean 'a pool of blood' and in another case with **pa** 'flat things' to mean 'spread out or spilled on the ground':

- (130) a. Džua ingi-ri a'ni teki a'kuaskuasi zar-i,  
blood little-RI rock top.of liquid cop-while

'There was a pool of blood on top of a rock...'

- b. perı zä-džua papá zin-eki  
dog gen-blood flat cop-loc

'where dog blood was on the ground'

The distinction between existential and locative clauses is not always clear. When the item involved is known, definite, or topical, it will generally not be overtly mentioned, and the clause is taken as locative in nature. When the item is indefinite, new, or non-topical, it will more likely occur as a noun phrase and the clause is interpreted as existential. For example, in 131a, the **turó** 'round hill' is a new



item and the clause is existential; in 131b the item (a deer) is known and not overtly mentioned, and the clause is locational/positional.

(131) a. Džirigakān bākānna turó a'sá zān' zāna'ba,  
 mountain middle round.hill 3D just cop

'There was a hill in the middle of the mountains...'

b. Eiki pá nar-e',  
 still flat cop-then

'(The deer) was still lying down...'

Occasionally, class indicator words help categorize unfamiliar objects by referring to their general characteristics and position. In

132, the hunters see something but cannot identify it:

(132) Inž pá na?  
 what flat cop

'What is that lying down?'

In 133, an unfamiliar item (a sword) is described both as 'like a machete' and as **gaka** 'a long thing':

(133) Husband: Oha gaka masite nar-i kawa.  
 sword long machete cop-while seem

'A sword is like a machete.'

Wife: Aža gaka?  
 that long

'It's a long thing?'

Husband: Aža gaka. Hóru-se' a'žū nus-i.  
 that long sheath-loc long.be.in cop-while

'It's a long thing. It was in a sheath.'

5.3.2 **Noun classes and verbs meaning 'to place'**. Verbs meaning 'to place something' are sensitive to the nature of the object handled. Example 134 contrasts the verbs for 'put down,' which vary according to the class of the object:

- (134) a. Kān   gakó     u!  
stick long.put aux  
          'Put down the stick!'
- b. Ribru pa        ú!  
      book flat.put aux  
          'Put down the book!'
- c. A'nî sa        ú!  
      rock 3D.put aux  
          'Put down the rock!'
- d. Pratu tšo'     ú!  
      plate cont.put aux  
          Put down the plate!

Other verbs of placing appear to be derived from the basic verbs for 'put down.' Thus, 'put down flat things' is **pan**, 'put flat things up on' is **ipan**, and 'put flat things into' is **kāpas**. Table 11 summarizes all the information I have gathered to date concerning noun class indicators and verbs of placing, location, and existence.

	Long	Flat	3D	Liquid	Holders	Containers
Existential/ Locative	gaka	pa	sa	--	--	tšo
Be in	a'geikua	a'pänkua	a'nikua	a'kua	a'žu	--
Be up on	igeikua	ipänkua	inikua	--	ižu	inuk
be on	geikua	pänkua	nikua	--	--	--
Put up on	igeika	ipan	isa	idos	--	itšo
Put down	gaka	pan	sa	dos	--	tšo's
Put in	kägaka	käpas	kässa	kädos	käžus	--

**Table 11 Locational words and noun classes.**

The noun class 'things with holders' refers to such relationships as a machete in its sheath or batteries in a flashlight. The key idea is that the holder is designed to contain the item in question. For the

verb meaning 'to put,' only 'put in' is relevant for this class. The noun class 'containers' refers to the position or existence of items such as pots or plates, rather than referring to the contents of the container. Note that people fall into this class when in an upright position. Thus, when coming up to a person who is standing, a polite comment is **ei tšo** (thus container/standing) 'you're standing.' However, people may also be classified as three dimensional (**sa**) when sitting.

Reduplication indicates plurality of the objects involved. Thus, when referring to a book on a table, the proper locational word is **ipa** but for a number of books is **ipapá**.

#### 5.4 Temporal aspect.

To understand the marking of temporal relations, it will be useful to distinguish the time of an event, some reference point from which that event is viewed, and the time of speaking (Reichenbach 1947). The three choices for temporal aspect, **-akí** 'perfect' (anterior), **-ān** 'imperfective,' and **∅** 'perfective,' involve the relationship between the event and the reference point for viewing the event. **-akí** 'perfect' sees an event from its termination, as already completed at the (time of) the reference point, i.e., it indicates that the event referred to is anterior to the reference point:

(135) Eik̄ i-ri-tšor-e'-ri,           guiadžina zä gämm̄  
 there ?-3plS-ascend-then-top puma       gen child

peri-se' anä-kuss-i           guak-ak̄i nu'-na.  
 dog-erg pt.ref-bite-while kill-perf aux-dist

'They went up there, and the dogs **had killed**  
 the puma cub, biting it.'

The first clause in 135 sets the reference point for **-ak̄i**: by the time the hunters arrive. With respect to that time, the dogs have already killed the puma cub.

**-än** 'imperfective' indicates an event going on at the time of the reference point, focussing on the event-in-progress rather than its beginning or end. (This suffix covers the same ground as what is usually called the progressive in English.) In 136, the reference point is the time of speaking:

(136) In̄-ri ei k̄ä-ž-än-no?  
 what-top thus periph-say-impfv-ig

'What are (the dogs) barking at?'

In 137, the reference point is prior to the time of speaking:

(137) Emi pari guiadžina zag-än       nu'-na.  
 here from puma       steal-impfv aux-dist

'A puma was stealing from here.'

**-än** 'imperfective' may also combine with two other suffixes, **-pan** 'inceptive' and **-bina** 'motion.' **-pan** 'inceptive' refers to an event which is beginning to take place or about to take place at the reference point.

(138) Ingí-ri tšoutšo kának-ám-pana keiwí  
 little-ri afraid become-impfv-incep right.away

u-ž-e' pari-ri, wí än-zoža-na.  
 aux-med-then from-top ? pt.ref-go-dist

'He began to get scared, and at that point he went.'

(139) Akín ora nă-kitšon-ám-pan-ni.  
 late hour 10-time.has.come-impfv-incep-cert

'My time is about to come.' or 'It is just about time.'

**-bina** 'motion' indicates that the subject leaves his primary location to perform the action, then returns to that location once again. For example, the question in 140 does not contain any verb of motion, yet implies that Abram came to eat, then returned to where he had been before:

(140) Abran zamí g-ám-bina u-ž-e?  
 Abram food eat-impfv-motion aux-med-ig

'Did Abram come to eat?'

**-bina**, then, marks an action performed while temporarily away from the subject's primary physical point of reference. The motion involved may be either away or toward; that is, the free translation of 140 would be 'Did Abram go to eat?' if Abram had been 'here' and would presumably return.

Not choosing **-akí** 'perfect,' or **-än** 'imperfective,' implies a perfective view of an event. That is, the event is seen as an undifferentiated whole. In 141, 'when Pablo came' establishes the point of reference, and 141a-c show the three options: (a) César had already gone; (b) he was going; and (c) simply, he left. (**zoža** 'go' is an

irregular verb; its varying forms in 141 do not represent any difference in meaning.)

- (141) Pablo nas-e'-ri,      a. César zož-akí nus-in.  
        Pablo come-then-top      César go-perf aux-wit
- 'When Pablo came,'      'Cesar had already gone.'
- b. César zuei-n nus-in.  
                                  César go-impfv aux-wit
- 'Cesar was going.'
- c. César zor-in.  
                                  César go-wit
- 'Cesar went.'

### 5.5 Mood.

Indicators of mood may be grouped into two sets, a set of modal suffixes involving obligation, intention, ability, etc., and suffixes and particles that show the connection between a verb and its context. The latter set indicates the connection between a dependent clause and its main clause, or between an independent clause and the speech situation.

**5.5.1 Modal suffixes.** Table 12 lists the seven modal suffixes. These suffixes indicate a non-actual event and are therefore irrealis in nature.

-ikua	'must'
-ikuei	'able to'
-wi'na	'prohibited'
-iwa	'about to'
-ngua	'will'
-nguasi	'in order to'
-iza	'would'

**Table 12 Modal suffixes.**

**5.5.1.1 -ikua 'must'.** -ikua 'must' conveys the idea of 'obligation'; a typical use is to give a command without using a grammatically imperative form:

(142) Zéi-'-kítšì nánn-äkua ni!  
go-neg-emph aux-must cert

'You must not go!'

Another use of **-ikua** is to indicate hortatory mood, i.e., 'Let's do X.'

(143) Nái-n-kítšì zän' känkänän núk-ikua nin.  
walk-impfv-emph just forest aux-must cert

'Let's go hunting (walk in the forest).'

**-ikua** is also used with first person, as in 144:

(144) Bekì ás-ik-o?  
where sit-must-ig

'Where should I sit?'



**5.5.1.2 -ikuei 'able to'.** **-ikuei 'able to'** deals with the realm of possibility, i.e., what could take place:

- (145) Gumia'sa aw-e'-ri, ingumän tos-ikuei neika nin  
 cover aux-then-top more catch-able NPfoc cert

otiki-ri.  
 animal-top

'You cover over (the hole) and then you can catch the  
 otiki animal.'

- (146) kä-wa's-i a'tšón-äkuei zín-n-ekí  
 periph-see-while arrive-able aux-dist-loc

'where you can arrive and see out'

- (147) Warekí zár-i-gui, kä-wa'n a-ukuei.  
 high cop-while-also periph-fall aux-able

'Up high like that, they could fall down.'

**5.5.1.3 -wi'na 'prohibited'.** **-wi'na 'prohibited'** marks an action as something one must never do, for example, drinking kerosene:

- (148) Petroriu a'ga-wi'na ni.  
 kerosene drink-prohib cert

'One must not drink kerosene.'

The combination of the negative plus **-ikua** 'must,' by contrast, only implies that one must not do the action in this particular instance. 149 is from a story in which a hunter has bad luck because he went hunting during Easter week. The verb **naža** 'walk' is a shortened form of the idiom for hunting ('walk in the forest'), and **džuia** 'day' refers in this case to Easter. Note that one must hunt (**-ikua** 'must'), but one must never hunt during religious holidays (**-wi'na** 'prohibited'):

(149) Nai-kua neki nai-wi'na džuia'-se'.  
walk-must cntr walk-prohib day-loc

'One has to hunt, but one should never hunt on that day.'

**5.5.1.4 -iwa 'about to'.** -iwa 'about to' is a sort of immediate future, expressing intention to do something soon.<sup>6</sup> When a person begins to tell a story s/he may say **kuentu i-wa ni** (story say-about.to cert) 'I'm going to tell a story.' The use of -iwa in this formulaic opening to a narrative illustrates the immediacy of the time involved. The reference point for -iwa need not be the time of speaking. In 150, the first clause 'when Pablo arrives' sets the reference point; the use of -iwa implies that the second action will immediately follows Pablo's arrival.

(150) Pablo na'-nik-ž-e'-ri, i'ba zor-iwa ni.  
Pablo come-when-med-then-top together go-about.to cert

'When Pablo comes, we will (immediately) go together.'

**5.5.1.5 -ngua 'will' and -nguasi 'in order to'.** -ngua 'will' serves as a general future tense. This modal expresses intention but no particular time frame. In 151, good hunting dogs are characterized as thinking "I will chase all kinds of animals."

(151) Pinna džuna was-än nä-ngua.  
all kind chase-impfv 10-will

'I will chase all kinds.'

Many examples involving **-ngua** imply a general rather than specific intention, as in 151. This modal may also be used, however, with a specific intention. For example, in one hunting story, as a man prepares to fire at his quarry, he thinks 'this shotgun shell is supposed to be able to kill big game' and therefore **guak-ān-gua** (kill-imperfective-will) 'it will kill it,' referring to this specific case.

**-ngua** 'will' is the only modal which is always marked for person. Person marking with **-ngua** makes use of the object person prefixes. In this sense, **-ngua** parallels the impersonal verbs (see section 2.3.4).

	singular	plural
1	nā-ngua	niwi-ngua
2	mi-ngua	miwi-ngua
3	∅-ngua	win-gua

**Table 13 Person marking for -ngua 'will'.**

The modal **-nguasi** 'in order to' may be simply a variant of **-ngua** 'will.' A clause with a verb marked by **-nguasi** is the purpose for the action stated in a second clause. (This second clause is indicated in the free translation of 152 but is not included in the vernacular to avoid confusion.)

(152) Urakī-sikī zeī-n nā-nguasi  
house-loc go-impfv 10-in.order.to

'(I went to look for my mule) in order to go home.'

At the time when the narrator went to look for his mule, going home was still an intention, so the use of **-ngua** 'will' is appropriate. The **-si** could mark this verb as the goal of the main verb, but **-nguasi** appears to have become frozen as a single morpheme; 'X-**nguasi** Y' implies 'do Y in order to X.'

**-ngua** 'will' (and **-nguasi**) differs from other modals in that it must follow a verb marked by **än** 'imperfective.' The imperfective usually indicates on-going action, as in **dan-än nuk-ža** (bark-imperfective aux-medial) 'it is barking,' but in verb phrases of the type 'verb-imperfective verb' the imperfective expresses purpose or futurity. In 153, **tak** 'look for' carries the imperfective suffix and is the purpose for the second verb, **zoža** 'go.' In terms of the chronological sequence, the speaker first 'went,' then afterward 'looked for,' so the verb marked by the imperfective is also future with respect to the final, main verb.

(153) Mura än-kä-tak-än                      zoža-na-rua.  
       mule pt.ref-periph-look.for-impfv go-dist-1S

'I went to look for (my) mule.'

**-ngua** behaves similarly; substituting **-ngua** 'will' for **zoža** 'go' produces a structurally and semantically similar construction:

(154) Mura än-kä-tak-än                      nă-ngua.  
       mule pt.ref-periph-look.for-impfv 10-will

'I will look for (my) mule.'

The action 'looking for' is still future and is an intention, but **-ngua** itself has no lexical meaning. Thus, **-ngua** behaves similarly to lexical verbs yet has no lexical meaning. Note also that **-ngua** carries

person markings in the same way as verbs with experiencer subjects, using the object prefixes to mark the subject of the clause. It would seem, then, that this modal is a verb which has become bleached of its lexical content and is becoming (or has become) grammaticized as a indication of intention or future time.

**5.5.1.6 -iza 'would'.** **-iza**, which I will gloss 'would,' marks a verb as indicating what would happen under certain conditions. This idea of 'under the right conditions' can be seen in 155, where the first clause establishes a condition.

(155) Bogotá zoža aw-iza na-ndi, Monserate tšua aw-iza.  
 Bogotá go aux-would aux-if Monserate see aux-would

'If one were to go to Bogotá, one would see Monserate.'

Combined with the negative, **-iza** implies 'does not want to':

(156) Wakuma wima neki g-u' nan-än ninza ni.  
 skunk meat cntr eat-neg aux-impfv 1:would cert

'I would not (do not want to) eat skunk meat.'

(The form **ninza** is a special form for first person with 'would.') Unlike **-ngua**, there is no consistent person marking pattern for the **-iza**; for second and third person, the person marking appropriate to the lexical verb is used. In 157, **nä-** '2 Subject' and **ni-** '2 Object' are selected for the two main verbs, respectively:

(157) Nä-zoža aw-iza na-ndi, mouga me-'zar-iza ni.  
 2S-go aux-would aux-if two 2O-feel-would cert

'If you were to go, something bad would happen (lit., 'you would feel two').'

In 158, there is no overt marking for person, which is the usual pattern for third person.

(158) Asige' husiri tšu-än zor-iza neki tšoutšo  
 next.day shotgun see-impfv go-would cntr fear

känas-e' pari-ri,  
 become-then from-top

'The next day he would have gone to see the shotgun  
 (booby-trap) but he got scared ...'

**5.5.2 Mood indicators and clause connectors.** The other side of mood marking concerns indicators of a clause's connection to its sentential or interactional context. Non-final, dependent clauses carry clause-connecting suffixes that indicate the temporal or logical relationship between that clause and the next clause in a clause chain. (See chapter 7 for detail on clause chaining and the suffixes involved.) Final, independent clauses are marked for speech-act value by clause final suffixes or particles. The mood indicators include markers for declarative, imperative, and interrogative. (See sections 6.1, 6.2, and 6.3 for details on mood indicators.)

## 5.6 Deictic aspect.

One paradigmatic set of verb suffixes indicates the degree of closeness or relevance between a verb and its point of reference (the situation of speaking for independent verbs; the main clause for medial, dependent verbs). Subject person and time are both involved in determining the 'distance' involved, with first person and 'now' the points of reference. The elements in the set, from the most proximal to the most distal, are **-w** (used with first person only), **-ku**, **∅**, **-ža**, and **-na**. For the sake of convenience, I will call the first and last elements in this list 'proximal' and 'distal' deictic aspect, respectively, and the intermediate three elements 'medial' deictic aspect. The following discussion will explain the differences between the members of the set.

There is a correlation between deictic 'distance' and time: independent verbs marked by **-na** 'distal' are always past time; and those marked by **-w** 'proximal' are virtually always present/immediate past. Example 159 illustrates the use of **-ža** 'medial' for present time and **-na** 'distal' for past time:

- (159) a. Biteriu eikì kuã-ža.  
 Viterio there live-med  
 'Viterio lives there.'
- b. Biteriu eikì kua-na.  
 Viterio there live-distal  
 'Viterio lived there.'

Thus, **-na** is more 'distant' from the point of reference than the other forms in the set, primarily in time. In conjunction with **-in** 'witness'<sup>7</sup>, however, **-ža** 'medial' always refers to past time:

(160) Tšua u-ž-in.  
see aux-med-wit

'He saw it.'

By contrast, remaining in third person, using no suffix (the  $\emptyset$  choice) implies 'happening now' or 'just happened':

(161) Tšua äw-in.  
see aux-wit

'He sees it.' or 'He just saw it.'

In this sense, **-ža** is more distant from the point of reference than  $\emptyset$ .

Another component of the 'distance' involved is the relationship between the speaker and the event. If the speaker did not witness an event, he must use **-na** 'distal'; otherwise he may use **-ža** 'medial':

(162) a. Tšua u-ž-in.  
see aux-med-wit

'He saw it (and I saw him see it).'

b. Tšua u-na.  
see aux-dist

'He saw it (but I didn't see him do so).'

Although 'not witnessed' calls for the use of **-na** 'distal,' the converse is not necessarily true: **-na** may be used for events which the speaker did witness. For example, **-na** 'distal' may be used with first person (where witness/nonwitness is irrelevant), e.g., **tšua-na-rua** (see-distal-1S) 'I saw it.' Examples like this reflect the speaker's



choice of presenting the event as more or less relevant to the time of speaking.

The relationship between the deictic suffixes and person is complex. The following chart lists the various forms for 'I/you/he see(s) it' for present/immediate past, past, and further removed/not witnessed.<sup>8</sup>

	<u>Immediate past</u>	<u>Past</u>	<u>Further removed</u>
1	tšua u-w-in see aux-prox-wit	tšua u-ku-in see aux-med-wit	tšua-na-rua see-dist-1S
2	nä-tšua u-ku-in 2S-see aux-med-wit	nä-tšua u-ž-in 2S-see aux-med-wit	nä-tšua-na 2S-see-dist
3	tšua əw-∅-in see aux-med-wit	tšua u-ž-in see aux-med-wit	tšua-na see-dist

Note that **-na** 'distal' occurs with all three persons. Note also that for past time, **-ža** 'medial' is not used with first person. Apparently a verb for which the speaker is the subject is too 'close' to use **-ža** 'medial' in the past. **-ku** 'medial' is used for 'you now' or 'me then,' that is, one step removed from the speaker, either second person or past time (but not both). **∅** may also be used for second person, past time, as in 163:

(163) Mäkkî   gaw-än       ki   nus-e?  
clothes make-impfv cntr aux-ig

'Were you making clothes?'

Given this fact and the forms for the immediate past, it can be seen that **∅** is one step more distant than **-ku** in person (third vs. second person in the immediate past, second vs. first person in the past). The third person forms demonstrate that **ža** is one step more distant in time

than  $\emptyset$ . This suggests that the variation between  $\emptyset$  and  $-\dot{z}a$  in the second person past time may represent a subtle distinction in time.

The deictic aspect suffixes make poor tense markers; only  $-na$  has any consistent time reference and  $-\dot{z}a$  shares past time with it. Nor do the suffixes make good subject person markers; only  $-w$  has any consistent person reference. One could construct glosses for the suffixes that hinge primarily around subject person.<sup>9</sup> For example,  $-w$  would be 'first person,'  $-ku$  would be 'one of the two of us who are talking together,' and both  $\emptyset$  and  $\dot{z}a$  would be 'not first person,' leaving  $-na$  as some sort of 'past' which simply happens to interact with the other markers paradigmatically. However, considered as markers of 'degree of relevance' or 'distance between verb and reference point,' the suffixes make more sense. Person, time, and (non-)witness all enter into the relationship between an event and the speech situation (or between two events in an event chain, in the case of medial verbs/clauses).

### 5.7 Valence change.

Causatives,  $k\bar{a}$ - 'peripheral participant,' benefactives, and reciprocals/reflexives all involve a change in the number of participants referenced by a verb.

**5.7.1 Causatives.** Ika has two sorts of causatives, lexical and analytic (cf. Comrie 1981:160-61). Lexical causatives are those where the idea of causation is built into the verb itself, for example, **guak** 'to kill' taken in the sense 'cause to die.' Another lexical causative involves permission rather than causation, per se: **tšuna** 'to let someone enter':

(164) a. Mi-tšuna        u-ž-e?  
20-let.enter aux-med-ig

'Did he let you go in?'

b. Nă-tšuna        u-ž-in.  
10-let.enter aux-med-wit

'Ee let me go in.'

**tšuna** 'let enter' is minimally different from **tšona** 'enter,' but I have found no other such pairs to warrant identifying a morphological process of causative formation. Note, however, that **tšuna** behaves similarly to other causative verbs: the one who enters becomes the object of the verb, and the one who causes is the subject.

Two verbs show clearer evidence of a morphological causative, Compare **kăma** 'sleep' and **kăma-s** 'cause/rock to sleep' in 165:

(165) a. Zizi hamaka-se' kămm-ăn        nu'-na.  
baby hammock-loc sleep-impfv aux-dist

'The baby was sleeping in the hammock.'

b. Marta zizi hamaka-se' kămma-s-ăn        nu'-na.  
Martha baby hammock-loc sleep-cause-impfv aux-dist

'Martha rocked the baby to sleep in the hammock.'

Compare also **maw** 'cry' and **mou-s** 'to make someone cry.'

Analytic causatives are ones involving two verbs, one of which specifically means 'cause.' The verb **gua'sa** 'to make, cause' takes a verb with **-än** 'imperfective' as its complement, conveying the idea 'to make someone do X':

(166) Juan-se' tšei tšus-än gua'sa-na.  
 Juan-erg farm leave-impfv cause-dist

'Juan made him leave his farm.'

**Gua'sa** plus the negative indicates 'cause not to X' or 'prevent from doing X' rather than 'did not cause to X'; that is, the scope of negation is the subordinate verb rather than **gua'sa** itself.

(167) ṣ̌i wis-än neki gua's-u' nar-i,  
 foul.odor spray.out-impfv cntr cause-neg aux-while

'(She) did not let the (skunk's scent) spray out.'

'(She) kept the (skunk's scent) from spraying out.'

The causee is referenced on **gua'sa** by the object prefixes:

(168) a. Zož-än mi-gua'sa u-ž-e?  
 go-impfv 2O-cause aux-med-ig

'Did he make you leave?'

b. Nă-gua'sa-na.  
 1O-cause-dist

'He made me (leave).'

**Gua'sa** always involves the idea of force, i.e., making the causee do something s/he would not otherwise do.

5.7.2 **kā-** 'peripheral participant' and valence increase. The prefix **kā-** 'peripheral participant' increases a verb's valence by allowing the verb to take object person prefixes to refer to an additional participant. With some verbs, this peripheral participant is one semantically implied by the verb but not included in the set of participants that the verb can refer to grammatically. In other cases, the additional participant is the possessor of one of the items involved in the action.

**ža** 'say' semantically implies a hearer but, grammatically, may not refer to that hearer without adding **kā-** (compare **ža-na** (say-distal) 'he said' with **nā-kā-ža-na** (10-peripheral.participant-say-distal) 'he said to me'). Similarly, **wa'k** 'look' is grammatically intransitive although the act of looking implies what is seen; in order to add object prefixes, it is necessary to use **kā-**, e.g., **mi-ka-wa'ka** (20-peripheral.participant-look) 'it looks at you.' **Tšua** 'see,' on the other hand, is transitive and may take object marking prefixes without **kā-**.

The verb **āngeik** 'to sell' is a transitive verb (rather than bitransitive) though semantically it implies a buyer. To explicitly refer to the buyer, either by a separate noun phrase or a first or second person object prefix, it is necessary to use **kā-**. Compare 169a and b:

(169) a. Kafé ängei'-na-rua ni.  
coffee sell-dist-1S cert

'I sold coffee.'

b. Kafé Pablo-se' k-ängei'-na-rua ni.  
coffee Pablo-loc periph-sell-dist-1S cert

'I sold coffee to Pablo.'

Apart from the cases described above, the additional participant brought in is the possessor of one of the clause participants. With transitive verbs, **kä-** indicates the possessor of the object. In 170a, the second person object prefix **mi-** refers to 'you' as the object of the verb **ga** 'eat' while in 170b, because of the presence of **kä-**, it refers to 'you' as the possessor of the object:

(170) a. Tigri mi-ga.  
jaguar 2O-eat

'The jaguar eats you.'

b. Perí kin-di mi-kä-ga.  
dog lim-top 2O-periph-eat

'(The jaguar) eats your two dogs.'

With locative/existential clauses, a possessor is associated with the location. 171 predicates the existence of a **kakärón** 'shotgun shell' and names the **husiri** 'shotgun' as the place where the shell is located. The combination of the first person object marker and **kä-** 'peripheral participant' indicates that the speaker is the possessor of the location -- the shotgun:

(171) Husiri kakärón neki nä-k-a'niku na-' no?  
shotgun shell cntr 1O-periph-be.in-neg aux-neg ig

'There is no shell in my gun, is there?'

In 172, the **tšegekuana** 'handbag' is the location specified, and the peripheral participant is the possessor of the handbag.

(172) Tšegekuána-se' a'buru k-a'nikua-na.  
handbag-loc offering periph-be.in-dist

'There was an offering in his handbag.' or 'He had an offering in his handbag.'

With intransitive verbs, **kš-** indicates the possessor of the subject:

(173) Husiri neki k-a'wi-u' nān-na.  
shotgun cntr periph-go.off-neg aux-dist

'His shotgun didn't fire.'

This particular usage of **kš-** is similar to what Relational Grammarians call 'Possessor Ascension' (cf. Frantz 1981:28-30, and Allen, Gardiner, and Frantz 1984:306-7 for possessor ascension in Southern Tiwa). As is apparently the case with other instances of possessor ascension, the peripheral participant/possessor, here, is associated with the most oblique of the noun phrases present: subject of intransitive, object of transitive, source/goal of bitransitive, and location of locative/existential clauses.

To summarize, **kš-** serves to include a peripheral participant in a clause as the referent of the object prefixes. The particular role of that peripheral participant is determined by the nature of the verb.

**5.7.3 Benefactives.** The benefactive role is signalled by the verb prefix **n-** for first and second person, and by **i-** for third person, in combination with the object person prefixes.<sup>10</sup> Compare 174a and b, in which 174b shows **nā-** '1 Object' plus **n-** 'benefactive' to indicate 'for me':

- (174) a. Kafé zas-än nuk-ž-in.  
 coffee save-impfv aux-med-wit  
 'He is saving coffee.'
- b. Kafé nā-n-zas-än nuk-ž-in.  
 coffee 10-ben-save-impfv aux-med-wit  
 'He is saving coffee for me.'

In 175, **i-** 'benefactive' indicates that the action is performed for the benefit of another:

- (175) Juan urakî i-gaw-än nuk-ža ni.  
 Juan house ben-make-impfv aux-med cert  
 'Juan is making a house for someone.'

Although third person singular object is unmarked, third plural is indicated by **winā-** (with the **ā** deleted preceding **i**):

- (176) Akusa win-i-zas-än nu'-ku-in.  
 needle 3pl0-ben-save-impfv aux-med-wit  
 'I'm saving needles for them.'

The benefactive markers are also used in a 'malefactive' sense:

- (177) Juan nā-n-gu'-na.  
 Juan 10-ben-pick.up-dist  
 'Juan took it from me (took it to my detriment).'

Some verbs may occur with either the benefactive marker or **kā-** 'peripheral participant.' In such cases, the benefactive form indicates a closer or more direct involvement in the action than the form with



**kā-**. Compare **nā-n-una'-na** (10-benefactive-bring-distal) 'he brought me' and **nā-k-una'-na** (10-peripheral.participant-bring-distal) 'he brought something to me.' With the benefactive, the person reference by the object prefix is directly affected whereas with **kā-**, s/he is only a recipient.

In some cases, the benefactive form results in an idiom. **Wa'k** usually means 'to look,' but in combination with the benefactive means 'to wait for':

(178) **Mi-n-wa'k-än nus-e?**  
 20-ben-look-impfv aux-ig

'Was he waiting for you?'

Another idiomatic use of the benefactive is with the copula **zan** in expressions indicating 'older or younger than.' In such constructions, the object prefixes in conjunction with the benefactive marker refer to the subject of the clause.

(179) **Dawid nä'än guasi ingumän i-zin-ni.**  
 David 1pro compar more ben-cop-cert

'David is older than me.'

(180) **Nä'än Juan guasi ingumän nä-n-zin-ni.**  
 1pro Juan compar more 10-ben-cop-cert

'I am older than Juan.'

**5.7.4 Reciprocals and reflexives.** Reciprocals and reflexives are marked by the verb prefix **rina** 'reciprocal'.<sup>11</sup> In the absence of overt noun phrases, it is not always clear whether a reciprocal or reflexive meaning is intended:

(181) **Rina-tšua u-ku-in.**  
 recip-sec aux-med-wit

'We saw each other.' or 'I saw myself.'

The postposition **sin** 'with' with an overt noun indicates a reciprocal meaning:

(182) **Pablo-sin rina-tšua u-w-in.**  
 Pablo-with recip-see aux-prox-wit

'Pablo and I (just) saw each other.'

**Rina-** occurs with verb forms usually associated with first person singular (see section 5.6 on deictic aspect).

The adjective **kingui** 'same' following the subject noun indicates a reflexive reading of **rina-**:

(183) **A kingui rina-sua u-ž-in.**  
 3pro same recip-burn aux-med-wit

'He burned himself.'

Note that **kingui** is also used in emphatic forms, e.g. 'he himself did it.'

### 5.8 Comparatives and equatives.

Comparison is indicated by the postposition **guasi** associated with the standard of comparison, in conjunction with a separate adjective or adverb. In 184, **Juansitu** is the standard of comparison and **ingumǎn** 'more' (meaning 'faster' in this case) is the comparative adjective:

(184) Pedru Juansitu guasi ingumǎn nǎža ni.  
 Pedro Juancito compar more walk cert

'Pedro walks faster than Juancito.'

Equation is also handled by means of a postposition, in this case **sin** 'with.' In 185, **ma** 'you' is the standard for the equation and **dikkin** 'same height' is the adjective:

(185) Juan ma-sin dikkin kawa no?  
 Juan 2pro-with same.height seem ig

'Is Juan the same height as you?'

Note that the standard of comparison is an oblique constituent, not referenced on the verb. 186a is a single-participant descriptive clause in which **kawa** 'seem' is an impersonal verb, referencing the participant by the object prefixes. The addition of a standard of comparison in 186b does not alter the person marking, and the reversal of the participants in 186c results in a corresponding change of the object marker on the verb:

- (186) a. Ma deiru mi-kawa ni.  
 you thin 20-seem cert  
 'You are thin.'
- b. Ma nä'än guasi deiru mi-kawa ni.  
 you I compar thin 20-seem cert  
 'You are thinner than me.'
- c. Nä'än ma guasi deiru nä-kawa ni.  
 I you compar thin 10-seem cert  
 'I am thinner than you.'

### 5.9 an- 'point of reference'.

The verb prefix **an-** 'point of reference' occurs in two main environments: with transitive verbs, to indicate a non-human object, and with motion verbs, to identify a significant place with respect to which the motion takes place. In both uses, the key idea is that of fixing a point of reference towards which the action is directed. The prefix has the form **än-** when followed by a consonant-initial form, resulting in a closed syllable.

With transitive verbs, **an-** indicates that a non-human object is involved, usually one which is directly affected by the action in a clause with a high degree of carry-over from agent to patient. In 187, **an-** occurs on the verbs **guak** 'kill' and **ga** 'eat,' illustrating the direct impact of the action on the non-human object.

(187) Dže-sik̄ äñ-guak-akí nus-i-ri, inḡi-ri  
 river-loc pt.ref-kill-perf aux-while-top little-top

añ-g-añ nus-e' keiw̄i kächän-na.  
 pt.ref-eat-impfv aux-then right.away arrive-dist

'Having killed (the deer) at the river, (the dogs)  
 were eating on it when I arrived.'

Verbs with which **añ-** often occurs are ones which inherently imply a direct effect on the object, e.g., **a'tär̄i** 'skin an animal,' **a'si** 'tie up,' and **gos** 'carry'; other verbs imply less contact, e.g., **tšua** 'see,' **dan** and 'bark.' In all cases, however, **añ-** 'point of reference' indicates that the object is the focus of attention.

With motion verbs, **añ-** singles out a location as a significant point with respect to which the motion takes place. In this way, **añ-** helps distinguish directed and undirected motion. That is, a motion verb without **añ-** predicates movement without being specific about the location involved. 188a would be a leave-taking which focusses on the departure while 188b focusses on the goal of the motion:

(188) a. Zor-iwa ni.  
 go-about.to cert

'I'm going now.'

b. Nabusímake añ-zor-iwa ni.  
 Nabusímake pt.ref-go-about.to cert

'I'm going to Nabusímake.'

Within narratives, **añ-** helps define physical scenes. For example, hunting stories involve a great deal of movement as the hunters leave home to track game, follow particular animals, return home and later resume the hunt, etc. Only a few instances of motion verbs, however, are marked by **añ-**. These cases are usually ones involving motion

towards significant locations in the story. When the hunter returns to his home, the verb usually carries *an-*; a person's house as his home base is an inherently important location. As a story progresses, however, narrators use *an-* to define a place around which a segment of the story revolves. In the hunting stories, these are places such as where game is sighted and the hunters converge or where the chase ends and the kill is made. Movements toward these spots often are marked by *an-* while other verbs of motion are not so marked.

This use of *an-* 'point of reference' to mark a significant location is similar to the use of 'come' and 'bring' in English. Fillmore suggests that these verbs may serve to define points of reference within narratives (1975:67):

"Come" and "bring" also indicate, in discourse in which neither speaker nor addressee figures as a character, motion toward a place taken as the subject of the narrative, toward the location of the central character at reference time, or toward the place which is the central character's home base at reference time.

*Naka* 'come' is very infrequent in the narratives in my corpus and apparently is defined with reference to the speaker, not the characters within the story. *an-*, however, combines with other motion verbs to serve the same purpose of indicating significant locations within the narrative.

Clauses in which *an-* 'point of reference' figures often show features of high transitivity, as defined by Hopper and Thompson 1980. In a general sense, transitivity is seen as "the effective carrying over of an activity from an A [agent] to a patient" (1980:279), but more specifically, Hopper and Thompson suggest that transitivity be broken

down into a number of components defining scales along which a given clause can be ranked as more or less transitive. Those components of interest with regard to **an-** are number of participants, kinesis, volitionality, affectedness of the object, and individuation of the object.

Motion verbs with specific locations have more "participants" than those with no location or those with a non-specific location. The verbs on which **an-** appears are usually kinetic, i.e., involving action as opposed to states (an exception to this is a verb such as **tšua** 'see'). Clauses with **an-** usually show volitionality of the agent and an affected object, often with a direct impact of the agent on the object (e.g., with verbs like 'kill' and 'eat'). Finally, in clauses with **an-**, the object or location is almost always highly individuated; that is, it is referential, concrete, and definite rather than non-referential, abstract, and indefinite.

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1. Uninflected, here, means having no suffixes. Prefixes play a relatively minor role in the verb complex as a whole and apparently have no bearing on the occurrence of optional auxiliary verbs.
2. Hugh Tracy suggested that auxiliary verbs focus on the preceding verb (personal communication), drawing my attention to the possibility that optional auxiliaries have a pragmatic rather than a grammatical function.
3. These observations concerning frequency of optional auxiliaries are only informal at this point.
4. The suffix **-rua** 'first singular subject' may occur following **-na** 'distal deictic aspect' (used in past time references) or following the auxiliary/copular verb **nan**, which usually appears in irrealis contexts, that is, with negatives and modal suffixes. The section on deictic aspect discusses the relationship between aspect and person, and two auxiliary verbs appear to have first person bound up with the verb stem itself (**uw** 'first person auxiliary' and **ninza** '1:would'), but apart from these circumstances and **-rua**, there is no overt marking of first person.

5. Although **win-** usually marks third plural subject with transitive verbs, it also occurs with vowel-initial intransitive verb stems, rather than **ri-**. Landaburu 1985 gives **win-** as potentially referring to second person, a combination which I have not observed myself.
6. The glosses of **-iwa** 'about to' and **-pan** 'inceptive' give the impression that the two overlap in meaning or function. **-iwa**, however, mainly involves intentionality while **-pan** focusses on the temporal relationship between an event and the point of reference for describing the event, that the event was, is, or will be beginning (or about to begin) at the time of the point of reference.
7. The suffix **-in** 'witness' is one of the markers of declarative mood, for predicating events in the past that the speaker witnessed. Although this gloss sounds like one associated with evidential markers, there is no evidential system per se in Ika. The suffix is discussed in more detail in section 6.1, in the chapter on clause formation.
8. As I mentioned in section 5.2, on agreement, second person forms are usually interrogative, first person forms declarative, in Ika. In that sense, the second person declarative forms in this chart are unnatural, and indeed, it was necessary to generate special contexts in order to elicit a form such as 'you saw it': how often does a person ask a question about what he himself has done? My first experiments with eliciting paradigms invariably produced such 'paradigms' as the one given in the section on agreement: 'I saw it. Did you see it? He saw it.' It is possible that speakers of other languages do not have the same difficulty that the Bintukwa have with this matter, but their reactions highlight the unnaturalness of eliciting paradigms. A few semesters of linguistic training seem to give one a permanent immunity to the feeling that manipulating language in the abstract is an odd sort of thing to do.
9. Landaburu presents just such an analysis, handling these suffixes, with the exception of **-na** (considered to have no relation to the other suffixes), as markers of subject. His analysis hinges around a basic distinction between the participants in the speech situation versus 'the world,' further subdividing the participants in the speech situation between the speaker himself and various sets of referents, including both first and second plural.
10. In the section on Ika phonology, I noted that, in contrast to Tracy and Tracy 1973, I am not considering the velar nasal to have phonemic status. One environment in which **n** has a velar point of articulation is syllable-finally before vowels. The **n** of the prefix **n-** 'benefactive' phonetically has a velar point of articulation when preceding a vowel, and therefore part of the definition of its underlying form is that a syllable boundary follows the **n**.
11. As with **n-** 'benefactive' (see the previous footnote), the **n** of **rina-** 'reciprocal/reflexive' phonetically has a velar point of articulation, and the underlying form of the morpheme would show a syllable boundary following the **n**.



## 6. CLAUSE FORMATION.

This chapter covers the formation of basic clause types: declaratives, questions, and imperatives, as well as dealing with negation, a topic whose scope is within the clause.

### 6.1 Declaratives.

Declarative mood is marked by **ni** 'certainty,' **-in** 'witness,' or  $\emptyset$ . **-in** indicates that the speaker witnessed the event predicated and covers a time span from 'now' (i.e., just happened) through (recent) past. **ni** 'certainty' covers all time frames, but for accomplished events it indicates that the speaker did not witness the event or that the speaker wants to convey that the event is removed in time, space, or relevance to the present. Compare the question in 189a with two possible answers, 189b using **-in** and 189c using **ni**:

- (189) a. Win-naka u-ž-e?  
3plS-come aux-med-ig  
'Did they come?'
- b. Win-naka u-ž-in.  
3plS-come aux-med-wit  
'They came (and I saw it).'
- c. Win-naka u-na ni.  
3plS-come aux-dist cert  
'They came (but I didn't see it).'

**-in** 'witness' may indicate immediacy in space or location relative to **ni**. For example, 190a and b differ in the emphasis placed on the location where the sentence is uttered: **ni** (190a) refers to 'around here in general,' while **-in** (190b) emphasizes 'right here where we are speaking.'

(190) a. äñke' kua-wa ni.  
here live-prox cert

'I live here.'

b. äñke' kua-w-in.  
here live-prox-wit

'I live **here**.' or '**This** is where I live.'

**-in** 'witness' is also used for 'right now.' In 191a and b, the question and answer refer to an event going on at the time the exchange takes place which the asker cannot see but which the answerer sees:

(191) a. Nugue a-o?  
stop aux-ig

'Are they stopping?' or 'Did they stop?'

b. Nugue äw-in.  
stop aux-wit

'They stopped.'

**ni** 'certainty' occurs in several contexts in which **-in** 'witness' does not occur: in descriptive clauses (with predicate nominals and adjectives), in clauses with modal suffixes, and in statements that are generally true but do not refer to a specific event. Example 192 illustrates **ni** in a descriptive clause:

(192) Tigri ni.  
jaguar cert

'It's a jaguar.'

In 193, *ni* occurs with the modal *-ikua* 'must':

(193) Kānkānān nai-n zoža a-ukua nin.  
forest walk-impfv go aux-must cert

'Let's go hunting.'

(Note the free variant *nin* in 193.) Example 194 shows *ni* in a clause which is generally true rather than referring to a specific case:

(194) Gagáru-ri kǎniu gǎ-za ni.  
animal-top cane eat-med cert

'The "gagaru" animal eats sugar cane.'

*ni* 'certainty' does not always occur in the environments where it might be expected. Within narrative, especially, mood marking may be absent on final independent clauses. The narrative establishes an environment in which unmarked clauses are understood as declarative. Declarative sentences in isolation also may lack mood marking.

An additional context in which declarative mood markers occur is in indirect content questions. 195 shows *ni* occurring with *inǎ* 'what' in an indirect question:

(195) Inǎ ni neki a'za-' nǎn-na.  
what cert cntr think-neg aux-dist

'He didn't know what it was.'

(See Section 8.3.3 for more on indirect questions.)

## 6.2 Questions.

There are three kinds of questions in Ika: yes/no questions, content questions, and indirect questions. Interrogative marking occurs on the final, independent clause of a sentence and always involves one of the verb phrase (and clause) final suffixes or particles: **-e**, **-o**, or **no**. Content questions also use special question words which are generally in clause initial position. Indirect content questions utilize the question words but use declarative mood marking in the verb phrase. (See section 8.3.3.)

**-e** 'interrogative' covers past time while **-o** and **no** occur in questions referring to the present, the future, and the distant past.

**6.2.1 Yes/No questions.** There are three types of yes/no questions: neutral, alternative, and leading (expecting a yes or no response).

**6.2.1.1 Neutral yes/no questions.** Neutral yes/no questions are formed by simply adding one of the interrogative suffixes or **no**, as in 196:

(196) Mari me-'zan-o?  
hunger 2O-think-ig

'Are you hungry?'

As mentioned above, **-e** is used for questions regarding the past:

(197) Win-naka u-ž-e?  
3plS-come aux-med-ig

'Did they come?'

**No** 'interrogative' is used following forms such as medial deictic aspect and **-ngua** 'will' that do not allow an interrogative suffix and in clauses with predicate nominals (which usually have no copula to refer to the present). These three cases are illustrated in the following three examples, respectively.

(198) Jordán nă-kuă-ža no?  
Jordán 2S-live-med ig

'Do you live in Jordán?'

(199) Sige' zei-n mi-ngua no?  
tomorrow go-impfv 2O-will ig

'Will you go tomorrow?'

(200) Sisio no?  
birg ig

'Is it a bird?'

**6.2.1.2 Alternative yes/no questions.** Alternative yes/no questions involve the combination of two questions, each beginning with **kua** 'or':

(201) Kua kusarî ki nan-ăn no? Kua guiadžina ki  
or deer cntr cop-impfv ig or puma cntr  
  
nan-ăn no?  
cop-impfv ig

'Is it a deer or is it a puma?'

Examples from conversation suggest that it is possible to give only **kua** plus the second alternative as the second part of the question:

(202) Mătšéi än-zagítš-ik-o, kua peikî nar-i?  
near pt.ref-pass-must-ig or far cop-while

'Do they pass near (each other) or far away?'

**6.2.1.3 Leading yes/no questions.** Leading yes/no questions end in the particle (or phrase) (na-') no '(be-negative) interrogative':

(203) Peibu-se'-ri diwän kaw-i tutusoma isä-ža  
Kogi-erg-top different seem-while hat sew-med

TAG-NEG  
kawa na-' no.  
seem be-neg ig

'It seems that the Kogi people make their hats differently, doesn't it.'

Leading questions are an interrogative form often used to express opinions. When the lexical verb and the tag are either both negative or both positive, the question expects a negative reply. When one is negative and the other is positive, the question expects a positive reply. A negative tag always has the form na-' (be-negative); a negative in the verb phrase usually appears on the lexical verb but may also appear on an auxiliary verb.

In 203, the verb is positive and the tag is negative, thus expecting a positive reply. In 204, the verb is negative but the tag is positive, and this case therefore expects a positive reply also. The first free translation follows the Ika negation pattern, and the second one provides an idiomatic English version.

(204) LEXICAL-NEG TAG  
Eima-ri džuirí a'za-' no.  
that-top soft cop-neg ig

'"These are not soft, are they."' (literal)  
'These are soft, aren't they.'

Example 205 illustrates a negative verb and a negative tag, expecting a negative reply ('No, my shotgun does not have a shell in it.').

(205)                                      LEXICAL-NEG                      TAG-NEG  
 Husiri    kakărón neki nă-k-a'nik-u'            na-'    no.  
 shot.gun shell    cntr 10-periph-have-neg be-neg ig

'My shotgun doesn't have a shell in it, doesn't  
 it.'" (literal)  
 'My shotgun doesn't have a shell in it, does it.'

The fourth possibility, a positive verb with a positive tag, expects a  
 negative reply:

(206) Makări-se'    aweri eimei            kaw-i            ki  
 vulture-erg ?            like.this seem-while cntr

LEXICAL    TAG  
 g-ăn            no.  
 eat-impfv ig

'A vulture eats like this, does it.'" (literal)  
 'A vulture doesn't eat like this, does it.'

This fourth possibility is rare in my corpus. A positive verb with  
 a positive tag is indistinguishable in form from a yes/no question. In  
 these cases, the context enables a determination of whether the speaker  
 is expressing an opinion or genuinely asking for information. Example  
 206 comes in a context where the speaker examines a goat which a  
 predator killed. After examining the animal, he states 206, lists the  
 relevant data, then says the following:

(207) Guiadžina-se' ga-na            guın kaw-e'-ri,  
 puma-erg            eat-dist ?            seem-then-top

'It seems that a puma killed it...'

In the context, then, it is clear that the speaker is not asking 'Does a  
 vulture eat like this?' but is stating his opinion: 'A vulture does not  
 eat like this.' At the same time, the potential confusion between a  
 leading question of this form and a neutral yes/no question may motivate

speakers to choose, instead, a leading yes/no question 'negative verb plus negative tag' to give a negative reading to the whole sentence.

One possible variation in the tag is the addition of **nān** 'be,' implying that the situation being asked about is removed in space. In 208a, **na-** 'no (be-negative interrogative) implies here and now, while in 208b **na-** ' **nān-no** (be-negative be-interrogative) implies removed in space:

- (208) a. Reró wiehu kawa na-' no?  
 watch old seem be-neg ig  
 'The watch seems old, doesn't it?'  
 (speaker is looking at the watch)
- b. Reró wiehu kawa na-' nān-no?  
 watch old seem be-neg be-ig  
 'The watch seems old, doesn't it?'  
 (the watch is somewhere else)

**6.2.2 Content questions.** Content questions utilize clause-final interrogative marking plus special question words that generally occur clause-initially:

- (209) Bekî nă-zoža no?  
 where 2S-go ig  
 'Where are you going?'

Table 14 lists the question words used in content questions.



inì(-ba')	'who,' 'what (day)'
bema	'which one'
biga	'how many'
bindi	'how many,' 'how much'
bekì	'where'
bin zan	'when'
iari	'why'
azi	'how'

**Table 14 Content question words.**

The discussion of these question words will follow the order given in Table 14, from those questioning noun phrases, to those questioning elements within noun phrases, to those questioning more peripheral clause constituents such as time and manner.

**Inì** 'who,' 'what' is the interrogative word for noun phrases. **Inì** may refer to a subject, object, or oblique NP. In 210, the questioned constituent is the subject.

(210) Inì-ri nai-n nuk-o?  
 what-top walk-impfv aux-ig

'What is walking (by)?'

When the object is in question, the subject is usually given information and not overtly mentioned in the clause:

(211) Inì was-i-ri ei ž-än no?  
 what chase-while-top thus say-impfv ig

'What is it chasing, barking like that?'

The appearance of the question word at the beginning of the clause in 211 does not give clear evidence that the question word has been fronted or moved from its 'normal' position after the subject. Indeed, declarative clauses having no overt subject noun phrase, such that the object occurs sentence-initially, are quite frequent in text, and this

suggests that question words in sentence-initial position may be due to this pattern of zero anaphora rather than to a movement rule. In 212 the noun phrase being questioned is the object of the postposition **sin** 'with':

(212) In<sup>ɨ</sup> sin nə-nas-e?  
 what with 2S-come-ig

'Who did you come with?'

**In<sup>ɨ</sup>ba'** 'what day' is derived from **in<sup>ɨ</sup>** by the addition of the suffix/clitic **-aba'**, which is also found attached to words for days of the week, borrowed from Spanish. **In<sup>ɨ</sup>ba'** asks for a specific day of the week in reply, as opposed to **bin zan** 'when,' which asks for any sort of time word in reply. In the following exchange, the wife's initial question is not clear to her husband, so he shifts the question from **bin** 'when' (in general) to **in<sup>ɨ</sup>ba'** 'what day':

(213) Wife: Bin zar-i-ri a-zori-e?  
 when cop-while-top 12plS-go-ig

'When did you all go?'

Husband: In<sup>ɨ</sup>ba' zar-e?  
 what.day cop-ig

'What day was it?'

Wife: In<sup>ɨ</sup>ba' nə-zoža nan-än no?  
 what.day 2S-go aux-impfv ig

'On what day did you go?'

Husband: Bierne Monserate a-zori-n.  
 Friday Monserate 12plS-go-wit

'We went to Monserate on Friday.'

**Bema** 'which one' also questions a noun phrase but refers to one member of a set of possibilities:

(214) Bema gowiernu urakì no?  
which.one government house ig

'Which one is the government building?'

**Biga** 'how many' is the interrogative word corresponding to numbers:

(215) Biga mirì ga-na no?  
how.many thousand eat-dist ig

'How many thousand did they eat?'

**Biga** may combine with **-muru** 'times' to indicate 'how many times':

(216) Bigá-muru nã-zori-e?  
how.many-times 2S-go-ig

'How many times did you go?'

An answer to **bigámuru** would be one of the adverbs utilizing **-muru**; e.g., **mú'-muru** (two-times) 'twice,' **mái-muru** (three-times) 'thrice.'

**Bindi** 'how much' does not necessarily ask for a number in reply, as **biga** does. 217 might be a follow-up question to a person saying 'I sold some coffee':

(217) Bindi nã-ngeis-e?  
how.much 2S-sell-ig

'How much did you sell?'

**Bekì** 'where' is the interrogative locative word. Note in 218 that the postposition **pari** 'from' immediately follows **bekì**; postpositions always immediately follow the question word to which they pertain.

(218) Bekì pari nã-nas-e?  
where from 2S-come-ig

'Where did you come from?'

**Bin zan** is the interrogative form for time expressions; apparently the actual question word **bin** 'when' always occurs with the copula **zan**.

(219) Bin zan-o?  
when cop-ig

'What time is it?'

(220) Bin zar-i-ri a-zori-e?  
when cop-while-top 2plS-go-ig

'When was it that you went?'

**Iari** 'why' questions a reason or cause. 221b uses a motion verb with a purpose complement (see section 8.3.4 below) to answer **iari** 'why':

(221) a. Iari zei-n mi-ngua no?  
why go-impfv 2O-will ig

'Why are you going?'

b. Tutu ängeik-än zor-iwa ni.  
wool.bag sell-impfv go-about.to cert

'I'm going to sell wool bags.'

**Azi** 'how' deals with manner. The phrase **gäggî re'tos** in example 222 is an idiom meaning 'reply' or 'answer':

(222) Azi gäggî re'tos-ik-o?  
how answer-must-ig

'How should I answer?' or 'What should I say?'

Most of the examples of **azi** that I have encountered are in indirect questions, as in 223:

(223) "Azi ni'-ni," neki a'zan-u' nän-na.  
what do-cert def think-neg aux-dist

'He didn't know what to do.'

When questions involve elements within post-positional phrases, the postposition immediately follows the question word. In 224, **-ikin** 'limitative' indicates 'up until' some time and is cliticized to both the question word and the time word in the answer:

- (224) a. Bin zán-ikin nă-nă-n-wa'k-ăn-no?  
 when cop-lim 2S-10-ben-look-impfv-ig  
 'Until when will you wait for me?'  
 'How long will you wait for me?'
- b. Biérne-kin mi-n-wa'k-ăn nă-ngua ni.  
 Friday-lim 20-ben-look-impfv 10-will cert  
 'I will wait for you until Friday.'

### 6.3 Imperatives.

Imperatives involve a verb followed by a stressed auxiliary verb. The lexical verb is uninflected or carries **-u** 'negative' or **-ăn** 'imperfective.' The auxiliary verb is inflected only for the future imperative, **u-nik-ža** (aux-when-medial). The hortatory form is marked by **-ăndi** 'hortatory').

**6.3.1 Immediate imperatives.** 225 illustrates a positive immediate imperative:

- (225) Amase ú!  
 get.up aux  
 'Get up!' or 'Stand up!'

The auxiliary verb receives heavy (phrase) stress. When the verb stem ends in an unstressed *a*, *u* 'auxiliary' tends to cliticize to the main verb, and the *a ú* becomes *óu*, as seen in 226 with *guka* 'to pick up.'

(226) *Gukó-u!*  
pick.up-aux

'Pick it up!'

Using the auxiliary *awa* rather than *u* indicates that the action is to be performed now but a little ways away:

(227) *Awakati dže ido-awa!*  
avocado water spill-aux

'(Go) water the avocado tree! (over there/away)'

With negative imperatives the auxiliary is *nǎn*.

(228) *Tšo's-u' nǎn!*  
put.down-neg aux

'Don't put it down!'

When the lexical verb carries *-ǎn* 'imperfective,' the action is to be done over a span of time, and the auxiliary verb is *nuk* (with the *k* deleted word-finally). The implication is that the speaker is going away and will be back shortly, but the hearer should perform the action meanwhile.

(229) *Mura sia ipas-ǎn nú!*  
mule saddle put.on-impfv aux

'Put/be putting the saddle on the mule!'

With stative clauses, the stressed verb is the copula appropriate to the particular predicate adjective, e.g., *zǎn* with *te* 'quiet' and *nǎn* with *tin* 'still':

(230) Te zán!  
quiet cop

'Be quiet!'

(231) Gämmäsini tin nán!  
boy still cop

'Son, be still!'

**6.3.2 Future imperatives.** Future imperatives utilize **-nik** 'when' and **ž** 'medial deictic aspect' to indicate that the hearer is to do the action later. (**Besamano** is borrowed from Spanish 'kiss hand.')

(232) Besamano besamano ké-i-nik-ža!  
greetings greetings periph-say-when-med

'Give him/her my greetings!'

(233) Akusa nä-n-zasó-u-nik-ža!  
needle 10-ben-save-aux-when-med

'Save a needle for me!'

The future imperative may combine with the negative: the auxiliary verb used in this case is **nán**, as with the immediate imperative:

(234) Džui a'ta'nig-u' nán-nik-ža!  
money loan-neg aux-when-med

'Don't loan out the money! (at some time in the future)'

The future imperative with **-än** 'imperfective' indicates that the action should be performed in the future and over a span of time but before the speaker returns:

(235) Buru tak-än nú'-nik-ža  
burro look.for-impfv aux-when-med

'Look for the burro!'

**6.3.3 Hortatory.** The hortatory is marked by **-ändi** 'hortatory' on the lexical verb or on a following auxiliary:

(236) **As-ändi!**  
sit-hort

'Let's sit down!'

(237) **Käniž mž aw-ändi!**  
cane grind aux-hort

'Let's grind sugar cane!'

Native speakers consider the use of the hortatory a "suggestion" or "invitation" rather than a command. The hortatory may also be used with inceptive aspect, as one person suggests to others that they begin doing something. For example, 238 could be used when a group has met to discuss something, and now it is time to begin:

(238) **Asaí-m-pana aw-ändi!**  
talk-impfv-incep aux-hort

'Let's begin to talk!'

#### **6.4 Negation.**

Negation is marked in the verb phrase by the suffix **-u'** 'negative'

(the suffix has the form **-'** when following a vowel-final morpheme):

(239) **Mura neki tšuz-a' nar-i-ri,**  
mule cntr see-neg aux-while-RI

'He did not see the mule...'

The negative occurs on the main verb of a clause, even when its scope is a subordinate verb in a merged complement. For example, in 240, the



negative with **gua'sa** 'cause' negates the subordinate verb 'spray out' rather than **gua'sa** itself:

(240) Ši wis-än neki gua's-u' nar-i,  
four.odor spray.out-impfv cntr cause-neg aux-while

'She prevented the skunk's scent from spraying out  
(i.e., caused to not spray out)....'

A second major function of the negative is to interact with the tag of a leading yes/no question in order to make the whole statement affirmative or negative. (See section 6.2.1.3 for more on these questions.) If the lexical verb is negative as well as the tag, the whole statement is negative:

(241) Mura neki tšuzan-u' na-' no?  
mule cntr see-neg be-neg ig

'I don't see the mule (do I?)'

However, the lexical verb may be negative yet the whole statement positive if the tag is positive. In 242, the verb is negative (with the negative carried by the optional auxiliary verb **aw**, reduced to **a**), and the tag is positive:

(242) Tigri perī mouga nā-kā-gga a-u' no?  
jaguar dog two 10-periph-eat aux-neg ig

'The jaguar ate my two dogs (didn't it?)'

(242 occurs in a context where it is clear that indeed the jaguar killed the dogs.) Thus, in leading yes/no questions, negation on the lexical verb does not negate that verb, but indicates that the proposition will have the polarity of the tag.

## 7. SENTENCE FORMATION.

Clause chaining, a phenomenon common in SOV languages, provides the major mechanism for combining clauses into sentences in Ika (cf. Givón 1984:71). Sentences are made up of one or more clauses. The non-final clauses are marked for their logical or temporal relationship to the following clause. In the discussion that follows I will refer to the suffixes that specify these relationships as clause "connectors," as a cover term that includes both the notions of conjunction and subordination. Final clauses are not marked for these relationships and instead have mood indicators (for declarative, imperative, or interrogative; cf. Givón 1984:70, 'speech-act indicators'). Table 15 lists the clause connecting suffixes:

-i	'while'
-e'	'then'
-adžu	'immediate succession'
-ame'	'because'
-ndi	'if'

**Table 15 Clause connecting suffixes.**

The conjunctions **pari** 'from,' **nāngua** 'and,' and **guinti** 'finally' may follow **-i** 'while,' **-e'** 'then,' and **-adžu** 'immediate succession.'

The environment for the occurrence of the clause connectors is 'X-z Y,' where X and Y are the two clauses concerned and z is the clause connector. Thus any mention of 'the two events connected' by a given clause connector has to do with the events referred to by X and Y, respectively.

Sentence "introducers" provide a way to link two sentences by means of an auxiliary verb with deictic aspect markers and a clause connecting suffix. The sentence introducer shows the relationship between the independent clause of the previous sentence and the first clause of the next sentence.

### 7.1 Temporal clause connectors.

-i 'while' specifies temporal overlap or inclusion, or, in general, that two events are tightly (but not causally) connected. The subject of a clause marked by -i is almost always the same as the subject of the next clause. 243 illustrates the use of -i:

(243) Mouga máikänì "hau hau" zän' kä-dar-i-ri,  
 two three yip yip just periph-bark-while-top  
 perì te nis-e'-ri,  
 dog quiet do-then-top

'Barking two or three times, the dog became quiet,...'

-e' 'then' indicates 'X and then Y' in both a logical and a temporal sense. With -e', in contrast to -i 'while,' the two events connected are more likely to involve a different subject, show temporal succession rather than overlap, and stand in a causal relationship. 244 illustrates -e' in a context that shows both temporal succession and a logical/causal relationship:

(244) Tigri änneki än-tšuz-a-' nar-e' nāngua-ri,  
jaguar cntr pt.ref-see-neg aux-then and-top

eigui keiwî tak-än zoža-na.  
also right.away look.for-impfv go-dist

'They didn't see the jaguar, and then (so) they  
went to look for it again.'

245 shows a case with **-e'** involving a change of subject between clauses:

(245) Eiki ri-žun-än nus-e'-ri nāngua-ri,  
still 3plS-go.down-impfv aux-then-top and-top

perî-ri in'gui eigui keiwî zoža-na.  
dog-top one also right.away go-dist

'They were still going down, and then one dog took off.'

**-e'** 'then' may also occur with **-nik** 'when' to mark a time conditional relationship, 'when you do X, then Y.' In 246 (talking about how cable cars operate in pairs), **-e'** indicates that the event indicated by the first clause temporally precedes that indicated by the second clause and **-nik** marks the first event as the condition under which the second event takes place:

(246) Eikî itšun-nik-ž-e'-ri,  
There go.up-when-med-then-top

iwa eim-ekî zanî än-žunä-ž-e'-ri,  
now that-loc from pt.ref-go.down-med-then-top

'When it goes up, the one up there comes down...'

**-adžu** 'immediate succession' indicates two events that follow immediately one after another (without temporal overlap), performed by the same subject:

(247) Du kaw-i a'tärì u-n-adžu nāngua-ri,  
 good seem-while skin aux-dist-imm.scc and-top

du kaw-i mantéki-se' isua aw-i,  
 good seem-while lard-loc cook aux-while

'As soon as she skinned it well, she fried it in lard well...'

In certain instances, a clause may have no clause connecting suffix yet be interpreted as part of a clause chain. Such cases involve one or more instances of the same verb (usually a motion verb), marked by **-na-ri** (distal-topic); the last verb followed by **guinti** 'finally' or **nāngua** 'and.' This combination of elements displays durativity, i.e., the action referred to took place over a span of time:

(248) Ri-žun-na-ri, žun-na-ri,  
 3plS-go.down-dist-top go.down-dist-top

žun-na-ri guinti, pér-i=se' k:a=dan=:an  
 go.down=dist=top finally dog=erg periph=bark=impfv

nuk=ž=ek-i m:atšéi k:atšar=e'=ri,  
 aux=med=loc near arrive=then=top

'They went down, down, down until finally they arrived near where the dog had barked at something...'

One verb alone may signal durativity in this way provided it carries **-na-ri guinti** (distal-topic finally):

(249) ingiti sekānar-i žun-na-ri guinti,  
 little stalk-while go.down-dist-top finally

"ingí zi'i tšu-ai" a'zar-e',  
 little red see-seems think-then

'He descended stalking carefully until finally he thought "I can see a little red."'

Frequently the two clauses joined in this way involve a motion verb followed by a verb indicating arrival:

(250) äm-win-igeis-i           än-žun-na-ri  
 pt.ref-3plS-carry-while   pt.ref-go.down-dist-top

nāngua-ri, uraki-sikā kātšar-i-ri,  
 and-top    house-loc   arrive-while-top

'They descended carrying it and arrived at the house...'

The conjunctions **pari** 'from' and **nāngua** 'and' may occur with **-i** 'while,' **-e** 'then,' and **-adžu** 'immediate succession.' **pari** 'from' indicates a change in episode or a turning point in a narrative. In a number of hunting stories, for example, if a hunter fails to find his quarry, gets scared, or does not know what to do, he leaves the scene, and this crucial point is marked by **pari**:

(251) Pedru-ri tšoutšo kānas-i, azi a-ukua ni  
 Pedro-top fear    have-while what aux-must cert

neki a'zan-u' gužn nar-e'   **pari-ri**,  
 cntr think-neg ?    aux-then from-top

tšoutšou kānas-e', kure nika u-na.  
 fear    have-then run do   aux-dist

'Pedro got scared and didn't know what to do, and from that point he got scared and he ran.'

## 7.2 Logical clause connectors.

**-ame** 'because' marks a clause as the reason for the next clause:

(252) *Semana Santa džuiá'-se' kánkánán nai-n*  
 week holy day-loc jungle walk-impfv

*zoža-na-ru-ame' zán' tigri perì mouga*  
 go-dist-1S-because just jaguar dog two

*nä-kä-gga au-' no.*  
 10-periph-eat aux-neg ig

'Because I went hunting in Holy Week, the jaguar  
 ate my two dogs, didn't it.'

**-ndi** 'if' marks a clause as a condition, as seen in 253:

(253) *Husiri nä-kä-na-ndi, tšaža ninza.*  
 shotgun 10-periph-cop-if shoot 1:would

'If I had my shotgun, I would shoot.'

A clause marked by **-ndi** may follow the clause to which it refers:

(254) *Witš-u' ki nán-nak-o, ändin zue-ndi?*  
 die-neg cntr aux-must-ig under go-if

'Would you die if you went underneath?'

Clause connectors that mark temporal relationships do not have this freedom because the order of the clauses is strictly iconic, i.e. determined by the order in which the events occurred.

### 7.3 Sentence introducers.

Independent clauses are not marked for their logical/temporal relationship to a following clause (as are medial clauses). Sentence "introducers," however, contain the clause connecting suffixes and conjunctions which show how the final, independent clause of the previous sentence is related to the first clause of the sentence the introducer initiates. Especially within narrative, sentence introducers

enable the speaker to break the grammatical clause-to-clause sequence while still indicating (by means of the sentence introducer) how the actions are related to one another. Example 255 is made up of three sentences (a, b, and c). The sentence introducer at the beginning of 255b indicates temporal overlap between 'went down chasing' and 'the puma climbed a tree.' The introducer at the beginning of 255c presents 'José shot' and 'he killed it' as a temporal sequence.

(255) a. ...in'gui-se' zǎn' eiki was-i žun-na.  
           one-erg just still chase-while go.down-dist

'One still went down chasing it.'

b. **Ei** aw-i nǎngua-ri, kǎn-se' keiwǐ  
       thus aux-while and-top tree-loc right.away

eigui an-itšon-ǎn nus-e' nǎngua-ri,  
       also pt.ref-go.up-impfv aux-then and-top

José-se' eigui tšei-na.  
       José-erg also shoot-dist

'(While it was chasing the puma,) the puma climbed  
 a tree, and then José shot.'

c. **Ei** u-ž-e' nǎngua, guako-u-na.  
       thus aux-med-then and kill-aux-dist

'(He shot it, and then) he killed it.'

Sentence introducers are made up of **ei** 'thus' (a sort of pro-verb), followed by an auxiliary verb carrying deictic aspect and clause-connecting suffixes, optionally followed in turn by one of the conjunctions **pari** 'from' or **nǎngua** 'and.'

A number of clause-chaining languages in Papua New Guinea also use the first element of a sentence to provide linkage with the prior sentence: "Commonly the function of the first base in such chaining



units is to refer back to the last base of the previous chain" (Longacre 1972:45; cf also Grimes 1972:521).

Occasionally, the first clause of a sentence will repeat the verb of the last clause of the previous sentence, but with different deictic aspect and with a clause connecting suffix. (This is in contrast to beginning the sentence with a sentence introducer.) The text of 255 continues as follows:

(256) a. Ei u-ž-e' nāngua, guako-u-na.  
 thus aux-med-then and kill-aux-dist

'And so he killed it.'

b. Guaka aw-i-ri, gasiro a'kui u-ž-e'-ri,  
 kill aux-while-top intestines cut.out aux-med-then-top

māndongu-se'-ri wimi áikāni sām̄mi k-ānikua-na.  
 stomach-loc-top meat apart lots periph-contain-dist

'Killing it, they gutted it, and there was a lot of  
 meat in its stomach.'

This repetition of the lexical verb indicates a significant break in the flow of a narrative, in this case the culmination of the hunt and the winding down of the story.

Kayapó of Brazil shows a similar phenomenon, "the verbatim repetition of a verb which is final in one sentence as the verb which leads into the succeeding action in the next sentence" (Stout and Thomson 1971:254). Note that one use of such verbatim repetition of a verb is to indicate the change from introduction to plot and plot to coda in Kayapó narrative.

## 8. SUBORDINATION.

Subordinate clauses in Ika fall into the following categories: relative clauses, locative nominalized clauses, clauses as complements to other verbs, and adverbial clauses.

### 8.1 Relative Clauses.

The basic strategy for forming relative clauses is to place a head noun in clause-initial position in a restricting clause having a non-finite verb, then to embed that restricting clause as one constituent of the matrix clause. There is no use of relative pronouns and no particular evidence of gapping, given that variation in word order in main, declarative clauses makes it impossible to fix an invariable position for major clause constituents. Thus, it is impossible to say that a noun phrase has been 'moved,' simply that it usually occurs in clause-initial position.

Most of the relative clauses encountered in text are relativizations into the subject position in the restricting clause, with the restricting clause following the head noun.<sup>1</sup> When topic and case markers occur with a relative clause, they occur on the end of the restricting clause rather than on the head noun itself, suggesting that the head noun is internal to the relative rather than external. Two examples in my corpus show relativization into the object position, one with a pre-nominal restricting clause and the other with a post-nominal

restricting clause. One additional example shows relativization into the locative/indirect object. The verb phrase in a relative clause is non-finite in that it lacks mood marking but is otherwise identical to the verb phrases of independent clauses.

Example 257 illustrates the most frequently occurring type of relative clause: relativization into the subject position. Notice the ergative and topic markers at the end of the relative clause (in parentheses). If the head noun were a constituent of the matrix clause, I would expect these markers to occur on the noun rather than at the end of the restricting clause.

(257) (Ik̄ in'gui Rísiu za'ki nuk-ža)-se'-ri ǎn-tšua-na.  
 man one Lisio name cop-med-erg-top pt.ref-see-dist

'A man named Lisio saw it.'

Not all examples of relative clauses show case or topic marking to help identify their status as a clause embedded within another clause, as in 258. In this example, however, note that the embedded clause occurs between a sentence-initial locative word and the verb at the end of the sentence, 'live.' The marker of declarative mood, *ni* 'certainty' pertains to *kuā-ža* (live-medial), while the verb of the restricting clause has no such mood marking.

(258) Džo'sägaka (per̄ guidžina wásä-ža) kuā-ža ni.  
 Yo'sägaka dog puma chase-med live-med cert

'A dog that chases pumas lives in Yo'sägaka.'

In addition to carrying no mood indicator, the verb of the restricting clause is also apparently limited to a choice between only *-ža* 'medial' or *-na* 'distal' deictic aspect.<sup>2</sup>

My corpus contains two clear cases of relativization into the object position, one with a post-nominal restricting clause and one with a pre-nominal restricting clause. In 259, **ga'kǎnami** 'word' is the head noun and the object of **guk** 'pick up' in the restricting clause:

(259) (**Eima ga'kǎnami** makina-se' guk-ǎn nuk-ža)-ri  
 this word machine-loc pick.up-impfv aux-med-top

riwi-ǎn nuk-ža na-' nǎn-no?  
 learn-impfv aux-med aux-neg aux-ig

'(They) are learning the words that they get  
 out of the machine (tape recorder), aren't they?'

Note that topic marking (-ri) comes at the end of the restricting clause rather than on the head noun itself.

The other example of relativization into the object position shows a pre-nominal restricting clause. SVO word order is quite rare in main clauses, but the most frequent pattern for forming relatives does not suggest gapping or movement of the head noun. Therefore I consider the head of the relative clause in 260 also to be internal to the restricting clause, except that here it occurs at the end of the restricting clause.

(260) (guiadžina-se' ga-na tšiva)-ri wanak-akí nuk-ž-aba'  
 puma-erg eat-dist goat-top bring-perf aux-med-loc

'where (they) had brought the goat that the puma ate'

When example 259 above is changed into a relativization into the locative/indirect object, **makina** 'machine' retains its case-marking according to its role in the restricting clause (marked by -se' 'locative'), and -ri 'topic' remains at the end of the restricting clause, but **makina** moves to initial position in the restricting clause:

(261) (**makina-se** ga'känamî guk-än nuk-ža)-ri  
 machine-loc word pick.up aux-med-top

grabadora auga ni.  
 tape.recorder rpt cert

'The machine that they get words out of is called a tape recorder.'

The fact that **makina** in 261 is case-marked for its role in the restricting clause while the topic marker occurs at the end of the restricting clause provides additional evidence that the head noun in such clauses is internal to the restricting clause.

To summarize briefly, most relative clauses in text are relativizations into the subject position with a subject-initial, internally-headed restricting clause. Case and topic marking on the end of the restricting clause rather than on the head noun itself support such an analysis. Two examples of relativization into the object position show both post-nominal and pre-nominal restricting clauses. The example of relativization into the locative, again, shows a post-nominal restricting clause with topic-marking on the end of the restricting clause.

## 8.2 Locative nominalized clauses.

The postpositions **-ekî** and **-aba'** may cliticize to verb final clauses with no mood marker to refer to a place where something takes or took place, e.g., **awion wa'nā-ž-ekî** (plane fall-med-loc) 'where the airplanes fall (the airport).' (See sections 4.4 and 4.5 for more on

these case markers.) 262 illustrates a locative clause within the context of the main clause.

(262) (Perì ză-džua papá zín-ekì) a'tšun-na-ri,  
dog gen-blood flat be-loc arrive-dist-top

'He arrived where there was dog blood on the ground...'

**-na** 'distal' deictic aspect is used in locative clauses to name a location where an event happened in the past:

(263) än-zoža-na (tšinu ga-n-ekì).  
pt.ref-go-dist pig eat-dist-loc

'He went to where (something) ate the pig.'

**-aba** 'locative' nominalizes a clause to name an area rather than a place or point. A number of examples involving **-aba** have motion verbs in the embedded clause resulting in something like 'along where it went,' as in 264:

(264) (än-zoža-n-aba') ta kingui eigui kusárì-ri  
pt.ref-go-dist-loc straight same also deer-top  
  
än-nak-än nu'-na.  
pt.ref-come-impfv aux-dist

'The deer came straight back by the same way it had gone.'

Locative nominalized clauses may occur between main clause constituents, as any other locative element does.

(265) Säbastian-di (kusarì kä-zagi-n-aba')  
Sebastian-top deer periph-pass-dist-loc  
  
itšon-än nus-e'-ri,  
go.up-impfv aux-then-top

'Sebastian went up to where the deer passed...'

### 8.3 Complementation.

There are several types of complementation in Ika, with a range of variation in how restricted the complement must be. That is, the complement may be completely unrestricted, as in a direct quotation where any valid utterance may serve as the complement to the quotative verb, while other main verbs require that their verbal complement carry a particular suffix, or no suffix at all. Some verbs of speaking and cognition take direct quotation complements, that is, the clauses which they take as complements could themselves stand as independent sentences. Other verbs take non-finite complements (having a verb with no mood marking). Indirect questions form another type of complement, combining some features of declarative marking and other features of interrogative marking. Motion verbs take a verbal complement indicating the purpose of the motion; the embedded verb in such clauses has a restricted grammatical form. Verbs with a particular suffix may show resultant state, serving as the complement to a copula (e.g., 'he is gone' vs. 'he went'). The verb a'džun 'want' takes the most restricted complement -- a verb which can not have any suffixes.

**8.3.1 Verbs with full sentence complements.** The verbs **a'zan** 'to think,' **ža** 'to say,' and **auga** 'reportative' take full sentences as quotative complements. There is no restriction on the complement: it may be one sentence or more; declarative, imperative, or interrogative. The quotation is direct in the sense that it does not change according to the person quoting or the time when the quotation is made. The quotation is usually a regular utterance but may be an onomatopoeic word or a 'pro-quote' such as **eimei** 'like this.' Example 266 has **ža** 'say' as the verb with its quotative complement:

(266) "Kānkānān nai-n            zei-kua," nā-kā-ža-n-ame',  
           jungle    walk-impfv go-must    10-periph-say-dist-because

'Because he said to me, "Let's go hunting" ...'

The next two examples illustrate complements which are interrogative and imperative, respectively.

(267) "Tšua me-'džun-o?" nā-ke-i-e'-ri,  
           see 20-want-ig 10-periph-say-then-top

'He said to me, "Do you want to see it?"...'

(268) "ān-gó-u!"            kā-ža-ri,  
           pt.ref-do-aux periph-say-top

'He said to him, "Do it!"...'

Although the complement of a verb like **ža** 'say' is usually an actual or possible utterance, it may also be an onomatopoeic word, or an adverb, **ei** 'thus' or **eimei** 'like this', which stands in for a quotation whose content is known. An example of an onomatopoeic quotation is the word **p̄i** imitating the sound of an angry puma:



- (269) Guidžina-ri "pì pì," keiwì ža-na.  
 puma-top right.away say-dist

'The puma said "pì pì."'

**Eimei** 'like this' may stand in for some actual quotation when the participants in the situation know what has been said, or the speaker is about to make a lengthy quotation, as when beginning to relate a story:

- (270) José eimei i-n.  
 José like.this say-wit

'José said it like this.'

**Auga** 'reportative' also takes full sentence complements but is never inflected for person:

- (271) "Tigri guákä-ža. Aná'nuga awän' kawa  
 jaguar kill-med animal big seem

guákä-ža," auga guin na-ndi,  
 kill-med rpt ? aux-since

'Since they say "It kills jaguars. It kills big animals."...'

**8.3.2 Verbs with complements not marked for mood.** The verbs **tšua** 'see,' **ža** 'say,' and **kawa** 'seem' take complements which are sentences lacking only mood indicators. The subject of the embedded verb is different from the subject of the main verb. Example 272 illustrates **tšua** 'see' with such an object complement:

- (272) (Džuia'-ri naž-än nuk-ža) neki tšu-' na-rua ni.  
 day-top walk-impfv aux-med cntr see-neg aux-1S cert

'I have not seen it walk around in the daytime.'

**Ža** 'say' with a complement not marked for mood means 'to make a sound like X' or 'it sounds like X.' The implication is that someone heard something happen, but **Ža** 'say' is always inflected for third person singular (i.e., unmarked), ruling out an interpretation as 'to hear X.'

- (273) Dže meina-kì kätšonä-ža ža-na.  
river stream-loc arrive-med say-dist

'It sounded as if it reached the stream.'

The arguments of the embedded sentence are case-marked for their role in the embedded sentence rather than the main sentence. In 274, **peri** 'dog' receives the ergative marking appropriate for the subject of the embedded verb 'to find.'

- (274) Peri-se' ka'tšonä-ža keiwì i  
dog-erg find-med right.away say:while

'It sounded like the dog found it...'

**Kawa** 'seem' takes a sentential complement as its only argument:

- (275) Mákärì-se' ga-na kaw-in.  
vulture-erg eat-dist seem-wit

'It seems that a vulture ate it.'

**Kawa** takes the mood marking of a regular verb but is not marked for person and is, in a sense, subjectless. Its usage shows that it means 'it seems to me,' but, grammatically, it is not marked for first person. **Kawa** is also used as a copula for constructing adjective and adverbial phrases. In 276, the first instance of **kawa** is copular while the second takes the preceding sentence as its complement. (The **na'** **no** is a tag expecting a positive reply.)

(276) Iwa peibu-se'-ri diwän kaw-i tutusoma isä-ža  
 now Kogi-erg-top different seem-while hat sew-med

kawa na-' no.  
 seem aux-neg ig

'Now it seems (to me) that the Kogis sew a different sort of hat.'

A second use of **kawa** means 'to have to X' and involves a complement marked by **-ikua** 'must,' with **kawa** taking an object prefix to refer to the person that has to do the action listed in the complement.

(277) Ribru mi-kä-ták-ikua nä-kaw-in.  
 book 20-periph-look.for-must 10-seem-wit

'I have to hunt a book for you.'

The subject of the embedded verb is the same as the referent of the object marker on **kawa**.

**8.3.3 Indirect questions.** The verbs **a'zan** 'to think (know),' **awan** 'to not be sure,' and **tšua** 'see' may take indirect question complements. There is no restriction on whether or not the subject of the indirect question is the same as the subject of the main verb. An indirect yes/no question has the same form as an independent yes/no question yet serves as the complement to a main verb which may take an indirect question complement:

(278) Džuia' kure nik-än-no awän-äkuei.  
 day run do-impfv-ig not.sure-able

'I am uncertain whether they run around in the daytime or not.'

Indirect content questions work somewhat differently. These complements have a question word yet take declarative mood marking (the particle **ni** 'certainty' or suffix **-in** 'witness'). **A'zan** 'think' frequently appears

with the negative to mean 'to not know,' with an indirect content question complement, as in 279:

(279) Inǝ ni neki wina-'za-' na.  
 what cert cntr 3plO-think-neg aux

'They didn't know what it was.'

Example 280 illustrates a'zan in the positive:

(280) Azi u-ni'-ku-e keiwǝ a'zan-ǎn nu'-n-adžu,  
 how aux-when-med-ig right.away think-impfv aux-dist-imm.scc

'As soon as she knew what she would do...'

I have encountered one example of tšua 'see' with an indirect question complement:

(281) Inǝ pa na keiwǝ win-tšu-ž-e' nǎngua,  
 what flat be right.away 3plS-see-med-then and

'They saw something lying down...'

**8.3.4 Motion verbs with purpose complements.** Verbs of motion may take a complement whose verb is marked only by -ǎn 'imperfective,' indicating 'go in order to X':

(282) Monu tšai-n ǎn-zoža-na.  
 monkey shoot-impfv pt.ref-go-dist

'He went (in order) to shoot monkeys.'

The subject of the embedded verb must be the same as the subject of the motion verb. The two actions are closely connected: in 282, the 'shooting' occurs at the place where the 'going' ends.

Purpose may also be expressed with two clauses when the two events involved are less closely related. In 283, the first clause expresses

the purpose, indicated by the modal **-nguasi** 'in order to,' and the second clause the event prompted by the purpose.

(283) Kāniḥ mus-än-guasi, mura än-kä-ta'-na.  
cane grind-impfv-in.order.to mule pt.ref-periph-look.for-dist

'He looked for the mule in order to grind sugar cane.'

Note that the 'grinding' does not take place where the mule is found: one action is the purpose for another, but there is no requirement that the one action take place where the other action ends.

**8.3.4.1 -ngua 'will' and purpose.** The modal **-ngua** 'will' and **-nguasi** 'in order to' take a purpose complement. (See section 5.5.1.5 for more on these modals.) Both constructions involve a verb marked by **-än** 'imperfective' followed by a 'verb' which is temporally prior to the first verb (i.e., in 'go to look for,' 'go' precedes 'look for in time,' and in 'will go,' the intention precedes the 'going'). Compare 284a and b:

(284) a. Kāniḥ mus-än nāngua ni.  
cane grind-impfv 10-will cert

'I will grind sugar cane.'

b. Kāniḥ mus-än zoža-na-rua ni.  
cane grind-impfv go-dist-1S cert

'I went (in order) to grind sugar cane.'

**8.3.4.2 Gua's 'cause' and purpose.** The causative verb **gua's** is also structurally similar to a motion verb with a purpose complement in that the embedded sentence has a verb marked only by **-än** 'imperfective.' The subject of **gua's** 'cause' and the subject of the embedded verb must be different, however, in contrast to purpose complements.

(285) Apau iniki-se' kã-nak-än neki  
owner anyone-erg periph-come-impfv cntr

gua's-u' neika.  
cause-neg NPfoc

'It does not let anything come near its owner.'

**8.3.5 Resultant state complements.** A verb marked only by **-na** 'distal' deictic aspect may serve as a complement to **zan**, a copular verb, to express the state resulting from an action. Example 286 illustrates a resultant state complement with the verb **zoža** 'go.'

(286) Guidžina-ri än-zoža-ná zin-na.  
puma-top pt.ref-go-dist cop-dist

'The puma was gone.'

With a transitive verb in the resultant state complement, the subject of the main clause is the object of the embedded clause.<sup>3</sup>

(287) Tšinu ga-ná zar-i-ri,  
pig eat-dist cop-while-top

'The pig was eaten...'

The resultant state complement differs both from a regular statement of an event in the past and from an anterior past (had done). Example 288 contrasts an event in the past, as a perfect (anterior past), and as a resultant state:

(288) Past	Guiadžina zoža-na. puma go-dist
	'The puma went.'
Perfect	Guidžina zož-akí nu'-na. puma go-perf aux-dist
	'The puma had gone.'
Resultant State	Guiadžina zoža-ná zín-na. puma go-dist cop-dist
	'The puma was gone.'

-na on the embedded verb also supports an analysis of this construction as a complement to the copula rather than as a compound tense: deictic aspect markers may occur only once in a verb phrase, and as 288 above shows, the copula may be marked for deictic aspect.

**8.3.6 A'džun 'want'.** The verb **a'džun** 'want' takes the most restricted complement of complement-taking verbs, namely a completely uninflected verb:

(289) Tšua na-'džun-ni.  
see 10-want-cert

'I want to see it.'

To negate the construction ('to not want to X'), **a'džun**, not the embedded verb, takes the negative suffix:

(290) Džo'-ri tšua a'džun-u' nžn-na ni.  
tail-top see want-neg aux-dist cert

'It didn't want to see the tail.'

The only element that may come between the two verbs is **aw**, apparently an uninflected auxiliary verb.

(291) Wa'ka aw me-'džun-o?  
look aux 2O-want-ig

'Do you want to look at it?'

Note that the participant referenced by the object prefixes on **a'džun** must be the same as the subject of the verb in the complement.<sup>4</sup>

#### 8.4 Adverbial clauses of simultaneous action.

Adverbial clauses with a verb marked by **-i** 'while' indicate a simultaneously-occurring action. The subject of the verb in the adverbial clause must be the same as the subject of the main verb; the subject noun phrase is case-marked for its role in the embedded clause.

(292) Peri-se'-ri win-was-i           žun-na.  
dog-erg-top 3plS-chase-while go.down-dist

'The dogs went down chasing it.'

Although the main verb is usually a motion verb, this is not a requirement. In 293, the main verb is **guak** 'to kill':

(293) Guiadžina zä gämmi peri-se' anä-kuss-i  
puma gen child dog-erg pt.ref-bite-while  
  
guak-akí nu'-na.  
kill-perf aux-dist

'The dog had killed the baby puma, biting it.'

Because **-i** 'while' is also used in clause chaining (to show that the actions in two successive clauses temporally overlap), it is sometimes difficult to determine whether a given case represents two clauses in sequence or an adverbial clause. Clear cases of adverbial clauses have nothing coming between the embedded verb and the main verb;



intervening material or the medial clause final clitic *-ri* 'topic' indicates two clauses in sequence. Example 294 shows a medial clause with *-i*. Note that the first clause ends in *-ri* 'topic' and a noun comes between the two verbs:

(294) Mouga máikāni "hau hau" zān' kā-dar-i-ri,  
two three yip yip just periph-bark-while-top

perĩ te nis-e'-ri,  
dog quiet do-then-top

'Barking at it two or three times, the dog got quiet...'

*-i* 'while' is also used to form a different sort of adverbial phrase or clause. Constructions of the form NOUN COPULA-*i* indicate 'like a NOUN'; for example *perĩ nar-i* (dog copula-while) 'like a dog' in 295:

(295) Perĩ nar-i o a'zina ni.  
dog cop-while mad think cert

'It gets mad like a dog (does).'

These adverbial clauses may serve as predicate adjectives, as in 296:

(296) Gei nar-i kawa nin uma'-ri.  
fire cop-while cop cert eye-top

'(When you shine a light on it,) the eyes are like  
(i.e., shine like) a fire.'

- 
1. The higher frequency of subject relatives is consistent with Comrie and Keenan's suggestion that, cross-linguistically, it is easier to relativize into the subject position: "in absolute terms subjects are the most relativizable of NP's" (Comrie and Keenan 1979:653). In this instance, the principle has a statistical rather than a categorical effect (i.e., both subject and object relatives occur, but subject relatives are more common).
  2. The other deictic aspect suffixes are used only with first and second person (section 5.6), and this probably accounts for the fact that I

have not observed them in relative clauses: It would be unusual for someone to say "I, who am ..." or "you, who are ..."

3. Comrie 1981:112-13 discusses the resultative construction as an instance of natural ergative-absolutive syntax. That is, in constructions involving resultant state, many languages show patterns in which the participant in focus is either the subject of an intransitive verb or the object of a transitive verb, irrespective of whether the language is considered to be basically nominative-accusative or ergative-absolutive.
4. The gloss 'want' for **a'džun** is actually somewhat misleading. The person 'wanting' is referenced as the object of the verb in the verb morphology, and the thing 'wanted' is presumably the subject. Thus a literal translation of **dže na-'džun-ni** (water 1O-want-certainty) is 'Water is desirable to me' or something of the like. This struck me as odd until Adolfo Constenla pointed out that this is parallel to Spanish verbs such as **gustar** 'to like' which reference the experiencer as the object of the verb (e.g. **El agua me gusta** 'I like the water' or 'The water pleases me'). A number of other verbs follow this pattern, e.g. **kanan** 'to own' (literally 'to pertain to') and **a'žun** 'to swallow' (literally 'to go down one's throat'). In all of these cases, the more animate participant is usually the object and the less animate participant is the subject.

## 9. PRAGMATICS.

This chapter discusses topics of a pragmatic nature: the handling of non-referential and impersonal subjects, the function of *-se* 'ergative' in reflecting the given-new distinction, two focus particles, and the pragmatic organization of clauses, including consideration of zero anaphora, the clitic *-ri* 'topic,' the linear order of clause constituents, the system of participant reference, and the use of optional auxiliary verbs.

### 9.1 Non-referential subjects.

A construction involving a verb plus the copula *zan* indicates that the subject is non-referential, that is, that no particular or specific entity is being referred to. In 297, the speaker indicates that "one can see" all of Bogotá from a certain vantage point:

(297) Bogotá eima urakí-ri kinki-ri žóu-kítšì zän' tšu zar-i.  
Bogotá this house-top really-top all-emph just see be-while

'You see all the houses in Bogotá.'

Although the speaker had the experience himself, he conveys the event as anyone would experience it. In 298, the same speaker discusses how people care for a garden. The scene is presented as not referring to any particular person:

(298) Dže dos-i átšu-ža zar-i.  
water spill-while care.for-med be-while

'Watering it, they care for it.'

The second person singular **ni-** object prefix is also sometimes used non-referentially. In 299, a hunter conveys that he cannot tell what it is that he is seeing, and uses a non-referential 'you':

(299) Inì ni neki me-'za-' nánn-äkua ka-u' no.  
 what cert cntr 20-think-neg aux-must seem-neg ig

'It seems that you can't tell what it is, doesn't it.'

## 9.2 Off-stage subjects.

The verb suffix **-kuma** 'impersonal' serves to indicate that the subject of a given clause, though referential, is not currently on-stage, in the sense of the participants in focus at a given point in time. Often, the subject in such clauses is not in the 'cast' of a narrative, but performs an action which affects one of the participants in the story. For example, 300 comes from a narrative at the height of the action and provides background: the shotgun shell, which fails to fire, is one that was given to the hunter previously by some unidentified party:

(300) In'gui kartutšu a'we-kuma-na gui nän-na.  
 one shell give-impers-dist also be-dist

'A shotgun shell had been given to him.'

The participant which **-kuma** references may be part of the cast of characters in a narrative but temporarily out of focus. In one story, some hunters split up into two groups, and one group becomes focal. During this part of the story, the non-focal group is referenced by **-kuma** when they perform actions, as in 301:

(301) "Amäse äw-in. Amäse äw-in,"  
get.up aux-wit get.up aux-wit

ke-i-kuma-ž-e'-ri,  
periph-say-impers-med-then-top

'"It got up. It got up," was being said to them, ...'

Native speakers sometimes use **-kuma** 'impersonal' for first or second person plural subject in elicited forms. For example, in response to a request for the equivalent of "we saw it," two forms may be given; 302a shows the first or second plural subject prefix while 302b has **-kuma** 'impersonal' instead:

(302) a. a-tšua u-ž-in  
12plS-see aux-med-wit

'we saw it'

b. tšua u-kuma-ž-in  
see aux-impers-med-wit

'we saw it' (or possibly 'it was seen')

**-kuma** 'impersonal,' then, makes reference to some unidentified, non-focal participant(s) as subject.

### 9.3 Ergative marking and the given-new distinction.

When the subject of a transitive clause is referential and known but lower on a scale of 'givenness' than the object, an explicit noun phrase reference is marked by **-se** 'ergative.' In terms of Givón 1983 on topic continuity, the object is more continuous than the subject with respect to the preceding discourse context (1983:9). For example, on one occasion I was talking to two Bántukwa men about a painting of some

pheasants. The birds were established as a discourse topic, and when I tried to explain that people eat pheasant, the men asked me the following:

(303) *Ik̩i gǎ-ža kua ikǎ-se' gǎ-za?*  
 man eat-med or man-erg eat-med

'they eat people or people eat them?'

With the bird as topic and given in the context, *-se'* 'ergative' indicates that *ik̩i* 'man' is subject but not given information.

First references, especially to minor characters, often show ergative marking. 304 illustrates an indefinite noun phrase reference to a participant that appears only in this clause in the narrative:

(304) *In'gui tšeirua-se'-ri wakuma-ri guako-u-na.*  
 one man-erg-top skunk-top kill-aux-dist

'A man killed a skunk.'

Reintroductions of participants also frequently show ergative marking. In one story, one of the major participants (José) is not in focus for a period of time as the speaker relates what another hunter, a puma, and the hunting dogs are doing. When José is next mentioned, the name takes *-se'*:

(305) *José-se' eigui keiw̩ tšei-na.*  
 José-erg also right.away shoot-dist

'José also shot it.'

Since the ergative marking is only relevant to transitive clauses, occasionally the first mention or the reintroduction of a participant shows no ergative marking because the participant enters the narrative as the subject of an intransitive verb; but a subsequent reference to the same character as the subject of a transitive verb may show *-se'*.

In 306, Sebastian is first mentioned by name in a story. The ergative marking occurs on the noun phrase in the third clause because that clause is the first reference to Sebastian as agent:

- (306) a. Säbastian-di kusarǝ kä-zagi-n-aba'  
 Sebastian-top deer periph-pass-dist-loc  
  
 itšon-än nus-e'-ri,  
 go.up-impfv aux-then-top  
  
 'Sebastian went up to where the deer passed by,'
- b. džirigakän-di i'ba täggǝ ände'risa-na.  
 mountainside-top together meet.together-dist  
  
 'then they met each other.'
- c. Ei u-ž-e' pari-ri, Säbastian-se'-ri tšaža u-na.  
 thus aux-med-then from-top Sebastian-erg-top shoot aux-dist  
  
 'At that point, Sebastian shot it.'

References to minor participants as agents usually have ergative marking. Thus humans who appear only once in a story or animals with a minor role (such as hunting dogs) usually are referenced by overt noun phrases with *-se'*.

Tracy and Levinsohn (1977) have investigated the function of *-se'* in expository discourse. Their analysis revolves around the concepts of grammatical paragraphs and the thematic participant of the paragraph (usually the central character of the discourse). When some participant other than the central character "occupies the subject role within the paragraph, he is, as it were, displacing the central character from that role, and as such has to be marked with the suffix *-se'* (change of role)" (Tracy and Levinsohn 1977:7). In the terms of my analysis, above, when the subject of a clause is not given information and

prominent in the preceding discourse (i.e., not the central character or thematic participant of the paragraph), the subject noun phrase is marked by *-se'*.

*-se'* 'ergative' occurs most frequently in contexts where an overt subject noun phrase is unexpected, in terms of frequency and position of occurrence. In one sample of (mostly narrative) text, three quarters of the transitive clauses had no overt subject noun phrase (177/238=74.37%). If one noun phrase occurred, it was more likely the object than the subject (117 clauses with one noun phrase; in 89, that noun phrase is object, 76.07%). Zero anaphora is one reflection of givenness in Ika discourse. The subject is usually absent and given in the discourse context. Thus, when the object is absent and the subject is present, the subject is less given than the object, and that subject is very likely to be marked as ergative (23 out of 28 subjects in SV transitive clauses, 82.14%). By contrast, when both subject and object noun phrases occur in a transitive clause, the subject is less likely to be marked as ergative (14 out of 33 clauses with both subject and object, 42.42% ergative marked).

For transitive clauses with overt subject noun phrases:

	<i>-se'</i>	no <i>-se'</i>	% <i>-se'</i>
only subject occurs	23	5	82.14
both subject and object occur	14	19	42.42

chi-square = 10.01    p less than .005

**Table 16 Ergative marking of subject noun phrases.**



Even in clauses in which both subject and object occur, subjects which follow objects are more likely to be ergative marked (see table 17). Recognizing a general principle that given precedes new in linear order, these results suggest that the subject, again, is ergative marked when it is less given than the object.

For transitive clauses with both subject and object noun phrases present:

	-se'	no -se'	% -se'
subject precedes object	7	19	26.92
object precedes subject	7	0	100

p is .0008 by Fisher's exact test

**Table 17 Ergative marking with both S and O present.**

An alternative explanation for the figures in the last two tables is that *-se'* serves to disambiguate subject from object in cases where the two might be confused -- when only one noun phrase occurs or object precedes subject, and in fact *-se'* may in part serve such a function. However, because of the high incidence of zero anaphora and the resulting potential ambiguity, I would judge that disambiguation is not a major concern of Ika grammar.

Comrie notes that languages frequently show differential case marking for agents which are low in animacy or definiteness (1981:122-123). The assumption is that information flow in transitive clauses from agent to patient is from high to low animacy and definiteness. The pattern, here, of ergative-marked agents which are lower in givenness than the patient is similar; the information flow



(308) "Tšei-wa" a'zar-e', neki husiri neki  
 shoot-about.to think-then cntr shotgun cntr

k-a'wi-u' nän-na.  
 periph-fire-neg aux-dist

'He thought "I'll shoot," but his shotgun didn't go off.'

The concept of 'contrary to expectation,' however, is not necessarily linked to negation. In some cases, two clauses are contrasted even when negation is not involved. For example, in 309, the first clause sets up an expectation that the hunter will go to see his shotgun-trap, but by contrast he gets scared and goes instead to ask for help in tracking his quarry:

(309) Asige' husiri tšu-än zor-iza, neki tšoutšo känas-e'  
 next.day shotgun see-impfv go-would cntr fear have-then

pari-ri, Džono'sui keiwë ga'-ž-än zoža-na.  
 from-top Donachui right.away message-say-impfv go-dist

'He wanted to go (would have gone) the next day to see the shotgun but instead he got scared and went to Donachui to talk about it.'

Just as **neki** 'contrary to expectation' may occur in the absence of the negative, so negation may occur in contexts not involving contrast. That is, the expectation may be that the event will not or did not happen. This is the case where the same event is mentioned twice, both with the negative. The first mention often involves **neki** while the second mention does not. In 310, the statement 'we did not eat it' occurs twice (with two clauses in between but not given here), the first time in a contrastive context and the second time merely as repetition, without **neki**:

(310) än-neki            an-a-g-u'-nän                    u-na.    ...eima  
 pt.ref-cntr   pt.ref-12plS-eat-neg-aux aux-dist    that

kusári-ri            an-a-g-u'-nän                    u-na    ni.  
 deer-top            pt.ref-12plS-eat-neg-aux aux-dist cert

'We did not eat it...we did not eat that deer.'

Another contrastive element (also sometimes occurring with the negative) is **neika** 'Noun Phrase focus.' **Neika** selects one item out of a set, either by way of contrasting two items or indicating which one is intended out of the available possibilities. In 311, **neika** occurs twice, in both cases to focus on certain dogs out of a pack:

(311) Perž umän re'masi neika-ri a'nž win-was-i,  
 dog more group NPfoc-top rock 3plS-chase-while

iwa mouga neika-se' nängua guiadžina win-was-i            zoža-na.  
 now two NPfoc-erg and puma            3plS-chase-while go-dist

'Most of the dogs chased the rocks (tumbling down the hillside), but two of them went chasing the puma.'

In some cases, **neika** occurs with the negative to set up a double contrast, i.e. 'item-1 verb' versus 'item-2 not-verb.' For instance, in 312, the double contrast is 'eats ripe things' versus 'does not eat raw things':

(312) Ku'nana gä-ža ni.            átššakai nar-i            g-u'  
 ripe eat-med cert raw cop-while eat-neg

gui neika ni.  
 also NPfoc cert

'It eats ripe fruit. It does not eat raw fruit.'

### 9.5 The pragmatics of clause organization.

Zero anaphora, linear order, the topic marker *-ri*, principles of participant reference, and optional auxiliary verbs are all bound up together in the pragmatic organization of the Ika clause. Zero anaphora — no overt noun phrase or pronoun reference to a participant in discourse — is statistically the most common means for referring to entities in connected speech. There tends to be relatively little variation in word order per se, with different combinations of present and absent clause constituents providing most of the variety in the linear organization of elements in clauses. Noun phrases that do occur, and clauses as a whole, may be marked by the clitic *-ri* 'topic' to indicate their special pragmatic status, with noun phrases marked in this way usually located in clause-initial position. Zero anaphora, unmarked noun phrases, and noun phrases marked by *-ri* provide the three basic choices in the system of participant reference in discourse. The pragmatic topic-comment structuring of clauses also interacts with optional auxiliary verbs such that when the comment portion of a clause consists of only the verb phrase, that phrase is more likely to contain an optional auxiliary verb, giving the phrase a pragmatically marked structure.

**9.5.1 Zero anaphora.** In text, zero anaphora is the most common means of participant reference, with the result that the majority of clauses lack an overt noun phrase reference to the subject and/or object. Thus, it is not uncommon to find clauses such as 313, in which neither the subject nor the object are referenced by overt noun phrases or pronouns.

(313) Guaka u-na.  
kill aux-dist

'He killed it.'

In one collection of narrative and expository text, the overall rate of zero anaphora is 64.95% (493 out of 759 instances of participant reference with no overt noun phrase or pronoun realization). Zero anaphora is significantly more common, however, with subjects than with objects. Table 18 compares zero anaphora for transitive subjects versus objects.

	Constituent:	
Constituent is:	Subject	Object
present	61	122
absent	177	116
% zero anaphora	74.37	48.74
chi-square = 33.0		

**Table 18 Zero anaphora for subjects vs. objects.**

The results in table 18 are not surprising, given that zero anaphora in general indicates the topicality of a participant, and the grammatical category subject, cross-linguistically, is often associated with the pragmatic category topic. Thus subjects, as 'naturally' more topical,

are more likely referenced by the topic indicating device of zero anaphora.

The rate of zero anaphora for subjects of transitives and of intransitives is not significantly different, as the figures in table 19 indicate.

	Type of clause:	
	Intransitive	Transitive
with subject	83	61
without subject	200	177
% zero anaphora	70.67	74.37
chi-square = 0.88    p greater than .10		

**Table 19 Zero anaphora, transitive vs. intransitive subjects.**

In general, zero anaphora represents the usual means of reference to a participant which figures in a series of clauses and may be treated as given information and topical.

**9.5.2 The linear order of clause constituents.** Figures on the linear order of clause constituents indicate that Ika is basically verb-final and that subject precedes object when both constituents occur, though only ten percent of the transitive clauses are SOV, strictly speaking. Table 20 gives information on the linear order of elements in intransitive and transitive clauses and also notes those clauses having only a verb phrase.

**Intransitive clauses:**

V	200
SV	83
Total	283

**Transitive clauses:**

V	88
OV	89
SV	28
SOV	23
OSV	3
SVO	3
OVS	4
Total	238

**Table 20 Word order statistics.**

Intransitive clauses are overwhelmingly subjectless, but all cases of noun phrase subjects occur pre-verbally. Only 6.6% of transitive clauses with a noun phrase subject show a post-verbal subject (4 out of 61). Indeed, only 2.5% of the object noun phrases are post-verbal (3 out of 122). Thus, Ika is strongly verb-final.

Due to the high rate of zero anaphora, only 33 transitive clauses out of 238 total provide evidence concerning the relative order of subject and object.<sup>1</sup> Two-thirds of these clauses show an SOV order (23/33=69.70%). About half of the instances of SOV clauses occur at beginnings, in the opening clauses of stories, where participants are first mentioned in a text or are reintroduced after an extended absence, and in isolated clauses in quoted speech. All of these circumstances show a great deal of discontinuity with the preceding context, requiring noun phrases to make reference clear.



The small number of clauses showing orders other than SOV offer little opportunity to investigate motivations for these alternative orders, but a number of the examples of post-verbal subjects occur in last mentions of a participant in a text.

**9.5.3 -ri 'topic'.** Tracy and Levinsohn (1977) list three functions for the clitic **-ri**, one of the most frequently occurring morphemes in Ika:

1. A signal of progression (1977:5):

The suffix **-ri** may occur as the last suffix in a non-final clause, signalling progression along the chronological or logical linkage axis of the backbone of the discourse . . . (**-ri** makes) the action of the following clauses a new and distinct event of the backbone. Its absence indicates lack of progression along the backbone, and a consequent bundling of the actions of the following clause(s) with the previous ones.

2. A signal of contrast when attached to adjectives

3. A signal of the Thematic Participant (1977:6):

One participant is selected to be the thematic participant of each paragraph. This is indicated by the suffix **-ri**, attached to the final word of the noun phrase which refers to the participant.

After reviewing these three functions, I will suggest that at the most general level, **-ri** serves to topicalize an element, to set off a clause, adjective, or noun phrase from surrounding material for pragmatic reasons.

**9.5.3.1 Clause-final -ri — separating distinct events.** Approximately two-thirds of the examples of **-ri** in my corpus occur at the end of non-final clauses. Tracy and Levinsohn mention this use of **-ri** as indicating progression along the backbone of a discourse. When **-ri** occurs at the end of a non-final clause, the next clause is interpreted as a new and distinct event on the backbone of the discourse. In this environment, **-ri** cliticizes to the last word in the verb phrase of a non-final clause or to the end of the sentence introducer which begins a new sentence (see section 7.3). The following two examples each contain one sentence, with the individual clauses within each one indicated by letters. 314a ends with **-ri**, indicating that 'the puma climbed a tree' and 'José fired again' are distinct events on the story line. The sentence introducer for the second sentence, however, does not carry **-ri**, indicating that 'José shot' and 'he killed it' would be bundled together, without progression along the event line.

(314) a. *Ei aw-i nāngua-ri, kǎn-se' eigui*  
 thus aux-while and-top tree-loc again

*an-itšon-än nus-e' nāngua-ri,*  
 pt.ref-go.up-impfv aux-then and-top

'(The puma) climbed a tree, and then'

b. *José eigui keiwǎ tšei-na.*  
 José again right.away shoot-dist

'José fired again.'

(315) a. *Ei u-ž-e' nāngua, guako-u-na.*  
 thus aux-then and kill-aux-dist

'And he killed it.'

Most cases in narrative involving *-ri* on the ends of clauses seem to serve this function of pragmatically separating two clauses which are to be considered distinct events. The clauses which are not separated by *-ri* likewise often show a lack of progression along the event line rather than distinct actions. Some clauses grouped together by the lack of *-ri* involve repetition, for example "He went to look for the puma. He went up to Tima'ka" and "He killed it. Having killed it." Other cases involve two aspects of a single event, such as "he went down. He arrived" and "José shot it. He killed it." Still other groups of clauses involve description rather than events: "Blood dripped out of its mouth, and it just stood there" and "its stomach had lots of meat in it. This they gave to the dogs."

Some aspects of the grouping or separating of clauses by *-ri* do not make as much sense in terms of this analysis, however. For example, the context for one of the examples given in the last paragraph contains three clauses which appear to be essentially all repetitions of the same event, yet the use of *-ri* at the end of the second clause groups the first two as separate from the third:

He went to look for the puma.  
He went up to Tima'ka.

He went up to where the goat that the puma had  
killed had just been brought.

Again, in the same hunting story in which "blood dripped out of its mouth" and "it just stood there" are grouped together, "the puma just stood there" and "its tongue was hanging down" are not. These apparent contradictions suggest that this use of *-ri* is not so much a rule of

grammar as a resource available to speakers to control the flow and pace of a narrative or other discourse. Thus the grouping of clauses not only reflects principles such as repetition, description, and stages in a single event but also reflects the speaker's choices, which cannot be wholly predicted.

**9.5.3.2 -ri and contrast.** Tracy and Levinsohn offer the following example of **-ri** on an adjective to show contrast:

(316) a. In'gui-ri péri-ri tikeki náža.  
one-top dog-top behind walk

'Certain dogs walk behind;'

b. Ei aw-e'-ri in'gui-ri perí umān sanusi  
thus aux-then-top one-top dog more ahead

"zei-n ná-ngua" a'zina.  
go-impfv 10-will think

'Other dogs want to go further ahead.'  
(Tracy and Levinsohn, example 2)

Similar examples occur in my corpus but are rare.

**9.5.3.3 -ri and topicality.** **-ri** on nouns sets a phrase apart within the clause, often in clause initial position, as topic, theme, or point of departure for what follows. Tracy and Levinsohn describe this function as marking the 'thematic participant' of the paragraph. Their analysis leans heavily on the notion of the grammatical paragraph, a concept that is problematic in practical terms, even if one subscribes to the notion that the paragraph is a grammatical unit. That is, the presence of **-ri** may help identify a stretch of talk that has coherence

around the topic so marked, but it is more doubtful that one could identify the paragraphs and then use that information to help determine the placement of **-ri**.

A less specific characterization of the function of **-ri** on noun phrases is that for cases involving overt noun phrase reference, **-ri** indicates that the participant concerned is topical within the clause and relatively more important in the context than a participant whose noun phrase reference is not marked by **-ri**. Zero anaphora is the usual indicator of topicality, but in situations where an explicit noun phrase is needed to make reference clear, **-ri** serves to indicate that the participant is being treated as the topic in the clause. The next section pursues the relationship between zero anaphora, **-ri**, and unmarked noun phrases within the system of participant reference.

**9.5.4 Participant reference.** Participant reference can be taken as the set of principles that govern or influence the choice of means by which entities are referred to in discourse. The term 'referred to' must be interpreted broadly enough to include zero anaphora -- cases in which an entity is not overtly mentioned in a clause but is part of the case frame of the verb. In Ika, there are essentially three choices for participant reference: (i) an unmarked noun phrase, (ii) a noun phrase marked by **-ri** 'topic,' and (iii) zero anaphora. After first summarizing Tracy and Levinsohn's observations concerning participant reference in expository discourse, I will present some quantitative data concerning the use of these three means of reference. I will conclude that

unmarked noun phrases are used for participants which are non-topical and which usually have a short-term presence in the discourse; that zero anaphora is the usual means for referring to topical and given participants; and that *-ri* marks noun phrases that refer to topical participants in cases where an overt noun phrase is needed to make reference clear.

Tracy and Levinsohn summarize the patterns of participant reference as follows. Participants are divided into two basic sets -- thematic and non-thematic within a given stretch of text. Thematic participants can only be ones that occupy a significant discourse role (usually the central character or some character related to the central character). The thematic participant is indicated by *-ri* attached to the end of the noun phrase which refers to the participant, in the opening sentence of each new paragraph (1977:8). Within the body of the paragraph, there is no overt reference to the thematic participant (zero anaphora). In the final sentence of a paragraph, all three means of referring to participants may be used with the thematic participant -- overt reference with or without *-ri*, or zero anaphora. Non-thematic participants are handled by means of overt noun phrases unmarked by *-ri*: "the presence of a nonthematic participant in a paragraph is indicated by his being overtly mentioned, but the reference carries no *-ri* marker" (1977:8).

**9.5.4.1 Topic continuity.** Givón has suggested that there are three types of main topics in thematic paragraphs ("a string of clauses whose **main/primary** topic remains the same" 1983:9) and relates these types to the degree to which the entity involved is relatively continuous or discontinuous with the preceding and following discourse context. The three types of main topics are (1983:9):

- (a) **Chain initial topic:**
  - (i) Characteristically a newly-introduced or newly-returned topic; thus
  - (ii) Characteristically a **discontinuous** topic in terms of the **preceding** discourse context; but
  - (iii) Potentially -- if an important topic -- a rather **persistent** topic in terms of the **succeeding** discourse context.
- (b) **Chain medial topic:**
  - (i) Characteristically a **continuing/continuous** topic in terms of the preceding discourse context; and also
  - (ii) Characteristically **persistent** -- but **not maximally** so -- in terms of the **succeeding** discourse context, even when an important topic.
- (c) **Chain final topic:**
  - (i) Characteristically a **continuing/continuous** topic in terms of the preceding discourse context; but
  - (ii) Characteristically a **non-persistent** topic in terms of the **succeeding** discourse context, even if an important topic.

Two tests which Givón suggests for measuring the continuity of topics in discourse involve referential distance back to the last reference to the topic, and the topic's persistence in the following discourse context. Givón describes referential distance as follows (1983:13):

This measurement assesses the gap between the previous occurrence in the discourse of a referent/topic and its current occurrence in a clause, where it is marked by a

particular grammatical coding device. The gap is thus expressed in terms of number of clauses to the left.

Topics which are more discontinuous with respect to the preceding discourse context have a higher referential distance. The measure that Givón suggests for persistence in the subsequent discourse involves (1983:15)

the number of clauses to the right -- i.e. in subsequent discourse from the measured clause -- in which the topic/participant continues an uninterrupted presence as a semantic argument of the clause, an argument of whatever role and marked by whatever grammatical means.

These measures help determine the relative (dis-)continuity of the available grammatical devices for coding topics and thus enable one to make conclusions regarding the function of the available devices in marking the different types of topics listed above.

**9.5.4.2 Topic continuity in Ika discourse.** In order to measure topic continuity in Ika discourse, I have examined noun phrases, noun phrases plus *-ri*, and zero anaphora in an eleven-clause window of text -- the preceding and succeeding five clauses around a given clause. I used a narrative and an expository text, totaling 113 clauses and 169 references to participants. For each participant identifiable as part of the case frame of a verb, I noted the grammatical means of referring to that participant and the participant's presence in the preceding and following five clauses. In the tables below, the grammatical means are given as NP (unmarked noun phrase), *-ri* (noun phrase plus *-ri* 'topic'), and  $\emptyset$  (zero anaphora). Table 21 gives the figures for the average number of clauses back to the last occurrence of the participant for the



three coding devices. Note that an unmarked noun phrase shows the most discontinuity with the previous context (highest average distance back to last occurrence), that zero anaphora shows the most continuity with the previous context (lowest average distance back to last occurrence), and that noun phrases marked by **-ri** stand in between the two.

NP	4.33 clauses
<b>-ri</b>	2.61 clauses
∅	1.43 clauses

**Table 21 Average distance back to last occurrence.**

Thus, zero anaphora occurs with topics that have usually been mentioned in the immediately prior discourse context, relative to topics referred to by noun phrases. In addition, **-ri** occurs on noun phrases in situations involving greater continuity with the previous context, relative to unmarked noun phrases

Table 22 gives the figures on the average number of clauses in which a participant has an uninterrupted presence in subsequent discourse, according to the grammatical coding device. Zero anaphora shows the greatest continuity in the following context, unmarked noun phrases show the least persistence, and, again, noun phrases marked by **-ri** show an intermediate amount of persistence.

NP	.98 clauses
-ri	1.41 clauses
∅	2.18 clauses

**Table 22 Persistence of topics in subsequent discourse.**

The figures from these two tables give support to Tracy and Levinsohn's observations on participant reference. The minor role of participants referenced by unmarked noun phrases is seen in the relatively long distance back to a last reference and the short amount of uninterrupted presence in the following discourse.<sup>2</sup> The evidence concerning *-ri* is not conclusive with regard to the concept of marking the thematic participant of a paragraph, but the figures do show that noun phrases marked by *-ri* have a greater degree of continuity with respect to the following discourse. The data also show that zero anaphora codes established topics, as seen in the high degree of continuity both in the preceding and following discourse.

In relation to Givón's types of main topics, above, zero anaphora is the preferred coding device for chain-medial topics, having a relatively high amount of continuity with both the prior and following context. *-ri* would seem to be the coding device for chain-initial topics, showing a greater discontinuity with the prior context than zero anaphora but more persistence than unmarked noun phrases. Unmarked noun phrases would seem to be the means for coding minor topics rather than major ones. On the whole, they show relatively little continuity in text, which is an indication of their minor pragmatic status. This

study does not shed light on the matter of chain-final topics, but it appears that this is one area in which word order interacts with topic continuity. I commented above that post-verbal subjects often involve participants that are moving off a scene (section 9.5.2, on word order). In particular, chain-final topics appear to be ones that are both postposed and marked by *-ri*.

**9.5.5 Optional auxiliary verbs and pragmatic structuring.** In the discussion of optional auxiliary verbs in the verb phrase above (section 5.1.2), I suggested that optional auxiliaries serve a pragmatic function of highlighting the lexical verb. This analysis rests in part on a conception of the pragmatic structuring of Ika clauses. In the last section, I used the term 'topic' in a very general sense -- any entity which plays a role in a clause. One may also speak of the topic of a clause as a particular item around which the clause revolves, the item that the clause is 'about.' Topics in this sense are usually considered to be given information and definite. I stated above that zero anaphora is the usual means for referring to topics, with *-ri* specifically marking noun phrases as topical for those cases in which an overt noun phrase is needed. In this sense, a starting point for considering the pragmatic structure of Ika clauses is to recognize topic versus comment, and marked topics (*-ri*) versus unmarked topics (zero anaphora). My conclusion concerning optional auxiliary verbs is that they produce a marked structure in the comment portion of a clause, highlighting the lexical verb itself.

Dooley 1982 investigates the tendency to use constituent structure in Guaraní to show pragmatic structure and suggests that all languages will similarly have some indication of pragmatic structure. He holds that in pragmatic terms, Guaraní sentences may be divided up into various constituents such as connectives, settings, topic, and a pragmatic nucleus (the only obligatory part of the utterance). Dooley's discussion of pragmatically marked structures in Guaraní shows parallels to the Ika use of optional auxiliary verbs (1982:312):

Marked pragmatic structuring can be produced in Guaraní in several ways. By far the most common means is a marked expression: an expression becomes marked when (a final segment of) the pragmatic nucleus is given a binary constituent structure which highlights that expression. This binary constituent structure is prominently indicated by marked word-order, intonation, or other special features, with the marked expression as one constituent. I will call the other, non-highlighted constituent the remainder constituent. The marked expression always precedes the remainder constituent; and this may be the general rule for languages in which marked expressions occur.

My analysis of optional auxiliary verbs in Ika is that they serve to produce pragmatically marked expressions having a binary constituent structure, with the lexical verb as the marked expression and the optional auxiliary verb and the rest of the verb phrase as the non-highlighted, remainder constituent.

Dooley notes that for Guaraní the usual pragmatic nucleus is an unmarked topic plus core, the core being "roughly described as the most informative pragmatic component" (1982:310). I suggest that a similar situation holds with Ika clauses. A noun phrase marked by *-ri* serves as a marked topic and participants referenced by zero anaphora serve as unmarked topics, with the rest of the clause serving as the core. Verb

phrases with optional auxiliaries represent a marked core, highlighting the verb as the most informative part of the clause, leaving auxiliary verb(s) with the rest of the information in the clause as the "remainder constituent." Much remains to be done in this area, but an example will help indicate the direction in which this analysis is pointing.

Example 317 contains three clauses in two sentences. The first clause has a  $\emptyset$  subject as unmarked topic and otherwise only a verb phrase. The verb phrase contains an optional auxiliary, highlighting the verb as the informationally most important element in the clause. The second and third clauses, in the second sentence, each contain a marked topic noun phrase followed by an unmarked core. Note that in each of these clauses, it is not the verb but the locative word that is informationally most important, and the verb phrase does not contain an optional auxiliary. The marked noun phrases focus on the contrast in participants involved, and the rest of each clause gives the details concerning the participant in focus. The parentheses indicate my conception of the pragmatic constituency of each clause.

(317) a. (TOPIC (MARKED-CORE REMAINDER)  
 ( ∅ (zoža u-na. )  
 (they) go aux-dist

'They went.'

b. (MARKED TOPIC (CORE )  
 (a-ri (meina keiwì zori-e'-ri,) )  
 he-top stream right.away go-then-top

'He went along a stream,'

c. (MARKED TOPIC (CORE )  
 (mouga-ri (awa'rei zoža-na.) )  
 two-top below go-dist

'and the other two went along below.'

Optional auxiliaries are found most frequently in clauses containing only a verb phrase -- clear cases of the verb being the informationally most important part of the proposition. This marked structure is found less often with verb phrases which already have an obligatory auxiliary verb, possibly because such a phrase already has the lexical verb separated toward the left and the rest of the grammatical material to the right on an obligatory auxiliary verb. There would be less need in such cases to create a marked structure in order to highlight the lexical verb. Firmer conclusions concerning optional auxiliary verbs and pragmatic structuring will have to await a separate study.

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1. The lower rate of verb-only clauses among transitives as opposed to intransitives is presumably due to the greater potential for confusion when both subject and object of a transitive clause are absent. Since zero anaphora for subjects is approximately the same for transitives and intransitives, while for objects it is lower, it may be that objects are chosen more often for explicit noun phrase reference in order to prevent this confusion over the identity of the subject versus the object.
2. The higher figure for referential distance with unmarked noun phrases is partly due to the fact that first introductions of participants

yield the highest amount of distance (with 6 as the maximum number in my study) and unmarked noun phrases are the basic choice for the first mention of a participant.

## 10. CONCLUSION.

No language has ever been completely described, and relatively few have been described in any detail when one considers the total number of languages in the world. This grammar of Ika is intended not to give the final word on the language but to offer the first broad treatment of grammatical phenomena in Ika. All the conclusions in the preceding chapters should be treated as suggestive and in need of further investigation, though I have always attempted to be as accurate and complete as possible within the constraints of my data base and an imperfect grasp of the language. I hope that further research by myself and others will result in the correction of any errors in this study and shed further light on the many fascinating phenomena that I have seen without yet being able to understand. Several major areas definitely warrant further investigation. The morphophonemic system is one of these areas, and the adequate analysis of Ika morphophonemics will necessitate compiling data on the alternative forms of a large number of roots and the majority of the affixes, to enable generalizations concerning the patterns of interaction between morphemes in combination.

There are a number of details concerning the clause-level that will need additional work. Chief among these matters, in my mind, are the pragmatic factors concerning zero anaphora, the ubiquitous clitic *-ri*, word order, and optional auxiliary verbs. The observations in the chapter on pragmatics are only a beginning in this rich area. Clearly, much of the work in this area will have to be discourse-based and would



benefit from observation of language in use by the B́ntukwa in everyday interaction.

Complex sentence structures form another area in which much more work is needed. My intention has been to present at least the basics of Ika syntax with a view to creating an interest among syntacticians in the syntax of relatively little-known languages. Specialized techniques will be necessary to secure the evidence needed from otherwise infrequently-occurring structures such as verbal complements and relative clauses.

I have given no systematic attention in this study to the whole question of discourse genre and ways of speaking. There is firm evidence that the type of discourse and the social setting for talk have a definite effect on the grammatical structures that will be found in the data (for example, cf. Schieffelin 1979). Thus, perhaps the greatest need, in order to make further progress in understanding Ika grammar, is to supplement the data base so as to ensure a corpus that is representative of the way that Ika is used in a wide range of social circumstances, including, especially, observations of language in use in situations where language itself is not in focus (cf. Labov 1975 on the limitations of the normal procedures used in descriptive fieldwork).

The Ika language deserves the additional research that I have outlined here as well as in other areas. I hope that this study will serve as a foundation for such research and will stimulate corrections as well as extensions into new areas of the grammar.

## 11. ABBREVIATIONS.

1	first person singular
2	second person singular
3	third person singular
1pl	first person plural
2pl	second person plural
3pl	third person plural
12pl	first or second person plural
O	object
S	subject
1:would	first person singular for the modal 'would'
3D	three dimensional noun class indicator
aux	auxiliary verb
ben	benefactive
cert	certainty
cntr	contrary to expectation
compar	comparative
cop	copula
dist	distal deictic aspect
emph	emphatic
erg	ergative
excl	exclusive
gen	genitive
ig	interrogative
imm.scc	immediate succession
impers	impersonal
impfv	imperfective
incep	inceptive
lim	limitative
loc	locative
med	medial deictic aspect
neg	negative
NPfoc	Noun Phrase focus
perf	perfect
periph	peripheral participant
pro	pronoun
prox	proximal deictic aspect
pt.ref	point of reference
recip	reciprocal/reflexive
rpt	reportative
top	topic
wit	witness

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