

Biak

Description of an Austronesian language of Papua

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VRIJE UNIVERSITEIT

Biak

Description of an Austronesian language of Papua

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad Doctor aan
de Vrije Universiteit Amsterdam,
op gezag van de rector magnificus
prof.dr. L.M. Bouter,
in het openbaar te verdedigen
ten overstaan van de promotiecommissie
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door

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geboren te Sliedrecht

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dr. G.P. Reesink

*Faro karyer veve asusr aya
fa veve rarwas wósnana,
mankun vena wós inensya*

*To all those who have shared with me
the riches of their language*

*Kepada semua
yang telah berbagi dengan saya
kekayaan bahasa mereka*

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CODES AND ABBREVIATIONS

code	meaning	explained in section
AN	animate	3.3.3.3
ANAPH	anaphoric	8.5.5.4
CONS	consecutive	10.5.1
DOUBT	doubt	3.11
DU	dual	3.2.1
el.	elicitation	---
EX	exclusive	3.2.1
FOC	focus	10.3.5
GEN	generic	8.5.3
GIV	given	5.3.1
INAN	inanimate	3.3.3.3
INC	inclusive	3.2.1
INDEF	indefinite	3.2.3
INSTR	instrument	10.12
iPROP	<i>i</i> after some proper nouns	3.3.3.1
IRR	irrealis	10.2.5, 3.7.3
k.o.	kind of	
LNK	linker	3.3.2.1.3 (cf. NUM.LNK)
LOC	locative	3.6.1
nonSP	nonspecific	5.2
NUM.LNK	numeral linker	3.9.1
O	'filler'	3.13
PAS	passive	8.3.3
PATH	path	9.4.2
PC	paucal	3.2.1
PL	plural	3.3.3.2, 3.2.1
POS	possessive marker	6.1, 6.2
PRED	predicate / predicative	8.5
PROHIB	prohibitive	3.7.5
QST	question	3.11
RECIPR	reciproke	3.2.5
RED	reduplicant	7.3
REL	relativiser	10.3.1
SEP	separator	10.3.3
SG	singular	3.3.3.2, 3.2.1
SIM	simultaneous	10.8.1
SM	subject marker	3.7, 8.3
SPC	specific	5.2
THEM	theme	3.8, 10.6.1
TOP	topic	3.8
U	'filler'	3.13
VBLZ	verbaliser	4.3.1.5
VOC	vocative	---

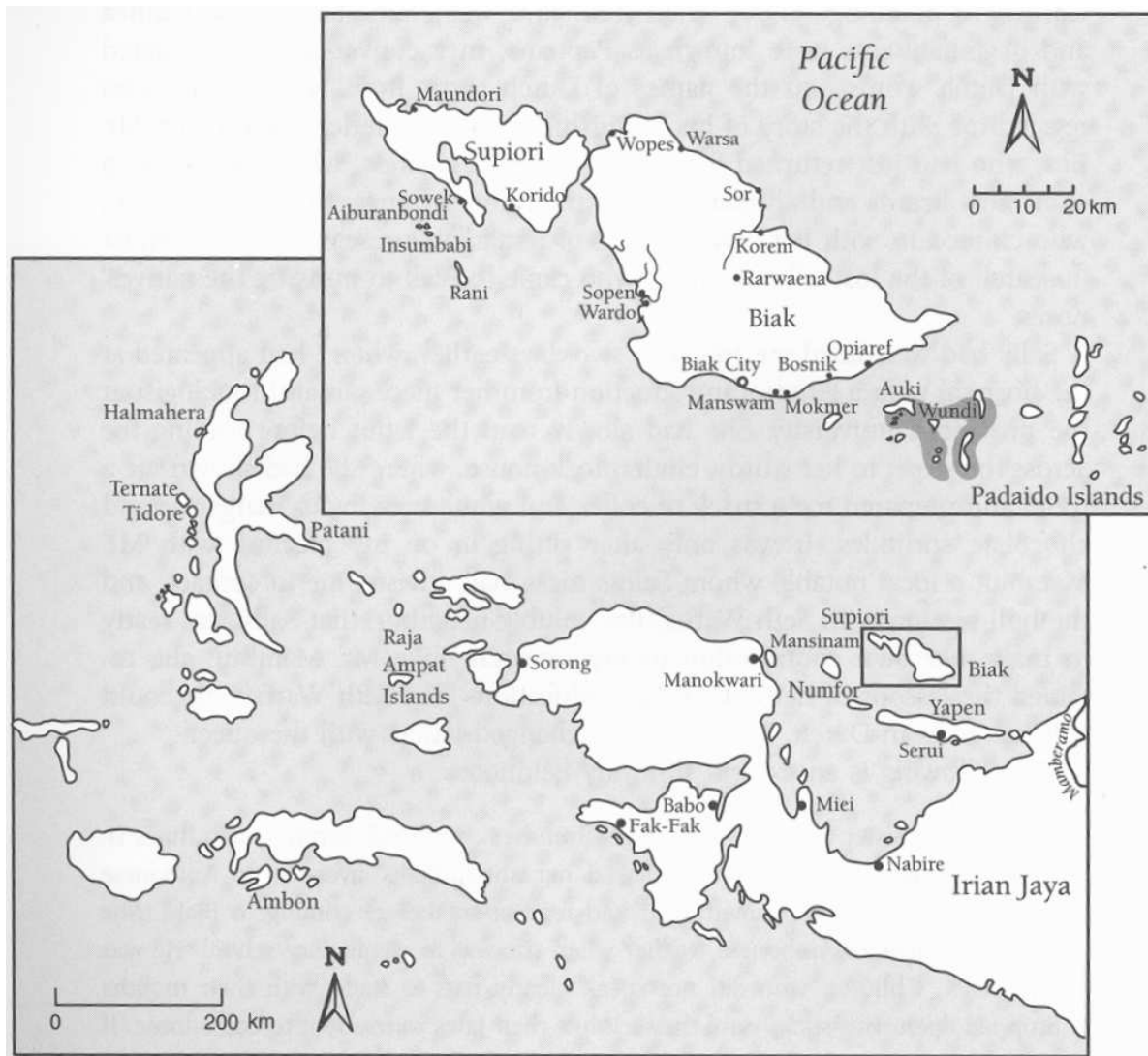
1 INTRODUCTION

Biak is an Austronesian language of Papua (formerly Irian Jaya), Indonesia, classified by Blust (1978, 1993) as a member of the South Halmahera Western New Guinea subgroup of Eastern Malayo-Polynesian languages. In the literature, the language is also referred to as (Biak-)Nu(m)foors(ch), Noefoors(ch), Mafoors(ch), or Myfoorsch. The terms either refer to the language as a whole, or to one of the dialects (Numfor/Dore) spoken on the island Numfor (described by the Van Hasselts, see 1.5 below). The speakers refer to their own language as *wós Vyak* 'Biak language' (named after the island Biak), *wós kovedi* 'our language', or they use the Indonesian *bahasa Biak* 'Biak language'. The name 'Biak' or *Vyak* might be historically related to proto-Austronesian *bat 'ground under one's feet, land', as is suggested in an unpublished writing by the former controller J.H.F. Sollewijn.¹

The language is spoken, in different dialects, on the islands Biak, Supiori, Numfor, on the smaller islands around, and in a number of settlements along the coast of Yapen. The language is also used in several settlements and on several smaller islands along the north coast of the Bird's Head peninsula, on West Waigeo, Salawati, and further on smaller islands in the Raja Ampat archipelago (cf. Wurm and Hattori 1982, maps 2 and 45.) Finally, the larger towns in the province, like Manokwari, Jayapura, Sorong and Merauke, also contain sizeable numbers of Biak speakers. The following maps show the location of the island Biak and surrounding islands in the Eastern Part of Indonesia.

¹ In his writing 'some notes on Biak', J.H.F. Sollewijn writes: "the toponym *Biák* or *Wiák* is the local pronunciation in the Schouten Islands of austr. *bat (the ground under one's feet, land), as in *Batantá* and *Bantaan*, in the ancient but newly introduced name *Batan Mé* for *Misoöl* and in *Matbat* (people from the land) as the inhabitants of *Batan Mé* call themselves. In the same manner, *fiak* from austr. *fat 'four'." As is also pointed out in 2.1.1, the shift from *t to (Numfor-)Biak k is systematic, while the language also contains other examples of diphthongization of an initial consonant, like Biak *kyor* 'three' compared to Buli *tol* (from Proto Austronesian *telu, cf. Blust 1978: 195).

Figure 1 The island Biak in Eastern Indonesia (source: Rutherford 2003: xiv)



This description focuses on the dialect spoken in Wardo, West Biak, and the neighboring village Yomdori, although it also contains data from other villages in the area.

1.1 The setting and the speakers of the language

From at least the beginning of the eighteenth century, there have been Biak settlements along the north coast and north-west coast of the Bird's Head (Miedema 1984: 3), and at least from that period on, Biak people have played a prominent role in trade. According to Miedema, in the 19th century the Numforese had a monopolist position along the north-coast of New Guinea, forcing inland people to provide them not only with products like rice and tobacco, but also with slaves, which they paid to the sultan of Tidore as tribute, or sold to others (for a more detailed overview, compare Kamma 1977, Miedema 1984, Huizinga 1998). Both the Tidorese and western traders provided Biak heads – functioning as intermediaries - with titles, which nowadays are still found as clan names or alternative names for village chiefs (Mayor, Kaptarau, Koranu). Since the beginning of the 20th century, after their conversion to

Christianity, the Biak people have come to play a prominent role in Christian mission, and nowadays they take many high positions in church and society within the province Papua.²

The largest number of Biak speakers is found on the islands Biak, Supiori, Numfor and surrounding islands. The island Biak measures approximately 70 by 35 km (my own estimate; according to Mansoben 2003 the island measures 1832 km², according to le Roux (1959) 2500km²) and is separated from the neighboring island Supiori by a small strait. Supiori measures 434 km², while Numfor measures 324 km² (Mansoben 2003). The larger part of the island Biak is relatively flat, the only mountains being found in the North-West part of the island. The highest mountain on the island reaches approximately 740 meter above sea level (Van Bemmelen 1953:266, cited in Mansoben 2003). Like Biak, the island Numfor is relatively flat, the highest mountain not reaching above 225 m. The island Supiori, on the other hand, is dominated by a high mountain, the highest top reaching 1034m above sea level.

The average maximum temperature on the island is around 30 degrees Celsius. According to my language helpers, in former times the months April through September were quiet, 'so that people could go out to Ternate / Tidore', while especially the period from November to March was dangerous. Nowadays, however, things seem to be less predictable, and it can be windy at any time.³

According to a 1999 count, the total number of inhabitants of the regency Biak Numfor amounted to 115.134 people (*Biak Numfor dalam Angka*, cited in Mansoben 2003). Mansoben (2003) estimates the number of Biak speakers in Biak to be around 70.000. More detailed research is needed, however, to make more precise claims of the number of speakers and of their degree of fluency in the language (compare, however, 1.2.1 below). Especially in Biak town, many people are of non-Biak origin.

The island Biak nowadays is well-connected to the rest of Indonesia. The island is called at on a nearly daily basis by airplanes from Jakarta to Jayapura and vice versa. From the airport, there are a few flights per week to Manokwari or Numfor, offering place for approximately 12 people. Apart from the plane, the island is also visited once or twice a week by ferries from Jakarta to Jayapura, some of them also calling at Numfor and Manokwari. The ferry to Jayapura also stops in Sentani on the island Yapen.

Approximately half of all inhabitants of Biak live in or close to Biak town, while the others live in the villages outside, which on average have a few hundred inhabitants. Transport on the island Biak largely takes place by public buses and mini-buses. Even in town, few people possess a car, while the possession of a car in villages is highly exceptional. At the time of my fieldwork, there were roads to all ends of the island. The north-west could only be reached via Korem, as there was no road from the South-West to the North. The ride (by bus) from Biak town to the village Wardo, where I spent most of my fieldwork, took about one and a half hours.

² One of the signs of their influence is the fact that quite a number of place-names and names of larger areas are of Biak origin. Thus, the name of the town *Manokwari* is Biak for 'old village', the name of the island *Mansinam* is Biak for a certain kind of bird, while the designations of the areas *Doberai* and *Bomberai* are of Biak origin too. *Bomberai* can be analyzed as *bon ve-rai* 'spear REL-stabs'-> 'spear that stabs', while *doberai* can be analyzed as *do-ve-rai* 'inside-ve-stab' -> '?inside/bay that is stabbed' (for the use of *ve* in compounds cf. 3.3.2.1.2).

³ My language helper Chris Padwa wrote me that Biak people nowadays say: *duniaya vye mansar kwar ja wamna no naso famfnome* 'the world has become old, so the wind also blows just when it wants'.

While the north of Supiori is connected to Biak by a bridge, the south can only be reached by boat. The travel from Biak town to the North-West of Supiori takes three to four hours, travel to the east of Biak a little more than an hour. The usual way to travel to the south of Supiori is to take a bus from town, and then take a motor-boat to Supiori. The journey from Wardo to Soweik at Supiori takes approximately 2 hours. If there is too much wind, however, one may have to wait for days, until the sea is quiet enough to depart. The port of the village Wardo, then, is a place where one will often find people from the villages of southern Supiori, like Soweik or Korido.

In the villages, the dominant means of existence are fishery or work on the land, dependent on whether the village is coastal or not. Families are self-supporting, and use the surplus of the crop or catch to sell on the local market or the market in Biak town. The most commonly cultivated products are different sorts of taro, cassava and sweet potatoes. In addition, people plant coconut trees, banana trees and betelnut trees, and several sorts of vegetables. In the wetter areas, one also finds sago trees, the product of which is popular throughout the island. Most of the products can be planted and harvested throughout the year. On the island Numfor, however, one also finds cultivation of mung beans, which my language helpers mentioned as the only product that could be planted and harvested at specific times of the year only.

The land is cultivated according to a system of shifting cultivation; as soon as the soil is not fertile any more, the land is abandoned and not used again for a number of years, until it is ready to be 'cleaned' again. This 'cleaning' involves the cutting of small trees and bushes, and is a task that is usually reserved for men. Other tasks on the land seem to be more or less equally divided between men and women.

With respect to the further division of labor between the sexes, cooking seems to be a task reserved for women. Both men and women may go out fishing. At the market, it was mostly women that were selling, although one would usually find some men hanging around.

Biak families are exogamous, which means that they marry outside their own group, often also outside their own village (for detailed discussion on kinship and marriage, the reader is referred to the descriptions and analyses given in Rutherford 1998, 2003). Traditionally, the bridegroom has to pay a dowry to the bride's parents and family. Although nowadays couples often start a household before the dowry has been paid, the tradition is still very much alive. As described by Rutherford, marriage leads to a life-long mutual relationship of taking and giving between two families. (ibid. 1998: 265f.). The Biak system is patrilineal, which implies that people bear the family (*kéret*) name of their father. Women, however, keep their own family name, also after they are married.⁴ Traditionally, a married couple usually moved to a place close to the bridegroom's parents (patrilocality, Kamma 1977:68), but nowadays this traditional pattern seems just one of the options to choose from.

Virtually all Biak people consider themselves Christians. The church plays an important role in social life, organizing bible study groups, markets or festivities for funding, building activities and the like. The church also is an important place for the distribution of information. It is not unusual for a church service to be followed by a 20 minutes summing up of announcements.

⁴ More on the Biak *kéret* 'clan' can be found in Rutherford 2003:37f.

1.2 Sociolinguistic overview

1.2.1 The use of the language

Although the number of Biak speakers is relatively high compared to other languages in the area, the language is in serious danger of disappearing. In Biak town, the language is actively used by the generation of approximately 50 years old and older, and even this generation frequently code-switches to local Malay. The generation of approximately twenty up to fifty has passive knowledge of the language, and hardly ever uses the language actively. Younger people do not even have a passive knowledge of the language. Outside Biak town, generally the further a village is remote from town, the better is the fluency in Biak.⁵ In the village Wardo, where I did most of my research, the generation from thirty upwards was still more or less fluent, while the generation below ten only obtained a passive knowledge of the language. In villages further away from town, however, I met children who were still fluent in Biak. Virtually all Biak speakers are (also) fluent in local Malay, but only some of them have a good knowledge of the official standard language Indonesian.

In church, the liturgy has long since been in Indonesian. Although several people have written Biak liturgies, there is no standard Biak liturgy (yet), and there are few if any churches that use a Biak liturgy on a weekly basis. In the villages, however, it is not uncommon for the sermon to be held in Biak, or for the sermon in standard Indonesian to be followed by a summary in Biak. The announcements after the service are usually in Indonesian, but people may shift to Biak to enlarge the impact.⁶ In Biak town, there has been a tradition for a service in Biak to be held at Christmas, and for approximately one year, at least one church in town is reported to have a Biak church service once a month.

A translation of the New Testament was published in 1990, but it is not very widely used. It is considered difficult to read, partly because of the spelling of /b/ and /v/, partly because of the relatively high number of unknown words, partly because people are not used to reading their own language anyway (cf. the remarks on /b/ in 2.1.1). I was told by one of my language helpers that in recent years contests were held to prove one's skill in reading the New Testament aloud. Both in and outside the town, during the service there is usually a small chorus singing one or two songs, which are either in Biak or in Indonesian.

Biak songs are very popular not only in church services, but also outside. At feasts or other happenings, young people like to sit together and sing songs, being accompanied by contrabass, ukelele, guitar or drum, and using handwritten notes to sing from. Although most adolescents in town do not even have a passive knowledge of the language, among them the Biak songs remain popular. I have met several groups of people that regularly come together

⁵ Of course, distance from the town should not be seen in a literal, physical sense, but mainly has to do with how well-connected the village is to town, and how much contact there is between the town and the village. A good illustration is given by the difference between Wardo / Yomdori and the village Kababur. In Kababur, which is closer to town, young children are still relatively fluent in the language compared to the children in Wardo and Yomdori. One of the reasons for this difference is the worse connection to town. As Wardo is the end point of the larger buses from town, it is relatively well-connected to the town. These buses either take a route not leading via Kababur, and if they do, they are often full and do not stop. Kababur, then, is less well-connected to town, although it is physically closer.

⁶ I have attended (by estimation) approximately 35 church services in various villages, most of them in Wardo and the neighboring village Yomdori. In about 5 services, people shifted to Biak during the announcements. This shift in language was accompanied by a clear shift in style, less 'formal', more direct and lively. It was clear that the Biak language was used to discuss those topics that were somehow sensitive or delicate, and which needed to be discussed with care and nuance.

to practice songs and once observed the director teaching the singers the meaning of the song. In West Biak, the traditional *wor*-song is sung only by very old people, while in North Biak the dances seem to be more popular.⁷

Various attempts have been undertaken to promote the use of the language. Apart from the liturgies described above, several people have made (translations of) song books, or have written teaching books.⁸ There is one Biak spoken radio program, which uses quite an artificial form of language, however. Items like the use of the language and the importance of the language as bearer of culture were discussed at several conferences, and possibly still are. For a few years, there have been attempts to introduce the teaching of Biak in the regular school curriculum. I was told that the formal decision to teach Biak at schools was taken during a conference at 2nd May 2002, a conference I only heard about afterwards.⁹ Within the framework of plans to teach Biak at school, a preliminary version of a grammar was 'published' in 2001, along with a book containing narratives taken from earlier sources (Fautngil, Christ and Frans Rumbrawer 2001 a,b). At the time of writing this thesis, however, the teaching of Biak at schools has only been talked about, but not yet been brought into practice.

1.2.2 Dialect variation

A description of dialect variation still awaits further investigation. Up till now, no dialect survey has been undertaken, and the various sources reporting on the number of dialects all have different estimates, while few of them are specific about the types of differences that define the boundaries between the several dialects.¹⁰ My own impression is that dialect differences within the Biak-Numfor regency are small, which is what people told me and is in line with my own observations. The only differences noted by me were some regular sound changes in the vowels in certain parts of the lexicon (like *ma* -> *me* 'to.here'), the use of a glottal stop instead of [k] for /k/ (or vice versa, cf. the remarks on /k/ in 2.1.1), or some minor lexical differences, including differences in vowel length. In addition, each different region seems to adopt slightly different intonational patterns. Some more remarkable differences were found in the speech of some people from the village Soweik at South Supiori, which has also been described by Steinhauer (2005). Thus, the Soweik dialect has metathesis of word-final Ce to eC compared to the other dialects, while the structure of spatial adverbs also shows

⁷ An interesting CD was brought out in 1996 by Smithsonian Folkways, as part of the series 'music of Indonesia'. It is entitled *music of Biak, Irian Jaya: wor, church songs, yospan* and was recorded and compiled by Philip Yampolsky. Annotations to the songs were written by Philip Yampolsky and the anthropologist Danilyn Rutherford, who lived in northern Biak for quite a while during her stay of 17 months at Biak in 1992-1994). The focus of the CD is on different types of traditional *wor*, but it also contains some church songs, and a *yospan*-dance, which is a type of dance that is popular throughout the province Papua.

⁸ One example that I came across is a series of books entitled *farkarkor wos Biak* [learning the Biak language] by Enos Korwa, published in between 1998 and 2000.

⁹ At the time of writing this thesis, it is still possible to find a remarkable article on the internet, taken from the newspaper *Kompas* of 19 July 2002, (<http://www.papuanews.com/article51.html>), stating that the Biak language is not only going to be taught at schools in the Biak/Numfor regency, but that it is 'in the process of becoming the local language of entire Papua'.

¹⁰ Here are some examples of different estimates. Steinhauer, basing himself on the observation of his informant, lists 10 different dialects, and refers to Kamma (1972:8), who distinguishes nine dialect groups in the Schouten islands [Biak, Supiori + surrounding islands] and Numfor, and three in the immigration areas Roon, Dore, and West-Waigeo. The recent grammar by Fautngil and Rumbrawer poses the existence of six major dialect groups and a total of 22 sub dialects (2001a: 7-12). The authors mention several criteria to distinguish between the dialects, which can all be understood as minor differences in pronunciation (more or less regular sound changes) or lexical differences. The SIL ethnologue on the web, finally, gives not less than 29 different dialects (<http://www.ethnologue.com>).

some deviations.¹¹ Finally, dialects seem to differ with respect to the classification of entities as animate or inanimate (cf. 3.3.3.3).

I was told that a number of villages at Numfor use the *Numfor-Dore* dialect, which also formed the basis for the grammar by F.J.F. van Hasselt in 1905, and the dictionary by L.J. van Hasselt in 1947 (which, however, also makes reference to other dialects). This dialect is said to be quite deviant from the other dialects, although still mutually understandable. Comparison of the 1905 grammar and the 1947 dictionary to my own corpus did not reveal many differences outside the lexical field, apart from some deviation in the field of demonstrative pronouns. It should be noted, however, that at many points the information in the 1905 grammar is insufficient to draw any conclusions about further differences. Another dialect that seems to show remarkable deviation from the other dialects is the so-called *Betew* or *Beser*-dialect, spoken on Waigeo and in the Raja Ampat region, which is said to have (retained) /t/ where Biak has /s/.

1.3 Typological sketch, genetic classification, and relation to languages in the area

Section 1.3.1 first gives a typological sketch of the language by presenting a summary of the book. Section 1.3.2 then discusses the genetic classification of the language, while 1.3.3 discusses the relations to other languages from an areal perspective.

1.3.1 Typological sketch; summary of the book

Generally, Biak can be classified as a language with basic SVO order, where the subject is expressed by subject prefixes or infixes on the verb, optionally accompanied by a coreferent NP in preverbal position. The object canonically follows the verb, the relation to the verb being clear from its position only. Other arguments as well as certain adverbials are expressed by prepositional phrases following the object.

The rest of this section combines a more detailed typological overview of the language with a summary of the present book. Following this introductory Chapter 1, the book continues with Chapter 2 on **phonology**. The language has a phoneme inventory of 13 consonants (the phoneme /t/ being very marginal) and 10 vowels, consisting of 5 short vowels (a, e, i, u, o) with their long counterparts. The language has a remarkable set of syllable-final and syllable-final consonant clusters, the latter clusters being broken up by [e] in prepausal position, so that a word like *ifn* is realized as [i'fen]. Epenthesis of [e] is not only used to avoid a prepausal sequence of a vowel and two consonants (VCC), but also to avoid the prepausal sequence of a long vowel plus a consonant, so that a word like *wáw* 'turtle' is realized as ['wa:we]. It is tentatively argued that Biak words are not lexically specified for stress, but that stress follows from the interaction of vowel length and a rhythmic pattern that is assigned postlexically within a domain that is larger than that of the word.

An introduction to the morphological notions of word, stem, root, affix, bound morpheme and clitic is given at the outset of Chapter 3, which further presents an elaborate discussion on Biak **word classes**. In general, the boundaries between word classes are clear. Verbs are bound roots that have to be marked with a person marking subject prefix before they can

¹¹ Thus, speakers from Soweke say *mu-ndan-da* 'PATH-to.over.there-sea'-'> 'seawards', where speakers of the Wardo dialect would say *mu-n-da* 'PATH-to.over.there-sea'. The analysis of *ndan* 'to.over.there' is just a guess, and more research would be needed to find out whether this analysis is right. Remarkably, the forms provided by Steinhauer (2005:818) are similar to the data I found for the Wardo dialect, although his main informant is from Soweke.

function as predicates. Nouns, on the other hand, cannot be prefixed with subject prefixes, and usually function as heads of noun phrases, which again function as verbal arguments or complements of prepositions. The language lacks a class of adjectives, as the great majority of adjectival notions are expressed by verbs. Biak has a number of prepositions, some of which are clearly related to verbs. In addition to the just mentioned word classes, the chapter also discusses different types of pronouns, along with adverbs, conjunctions, numerals, quantifiers, question words, topic markers, some interjections and exclamations.

Biak **verbs** are discussed in Chapter 4. In addition to their obligatory combining with a subject prefix (or infix), verbs can also be characterized by their possibility to reduplicate according to one of the reduplication patterns described in Chapter 7. Syntactically, a basic division can be made between transitive, S=O ambitransitive and intransitive verbs. Some of the transitive verbs can be passivized. Morphologically, a number of verbs contain petrified derivational prefixes (*m(a),f(a),k(a)*), while the number of productive prefixes is small. There is one verbalizing prefix, *ve-*, which can be combined with stems from different classes, a prefix *ák-* 'also', a prefix *far-* expressing affectedness of the subject or reciprocity, and an instrumental prefix *k-*. The latter prefix is historically related to the verb *vuk* 'give' by a grammaticalization path that is still synchronically visible and discussed in Chapter 10. In addition to the just mentioned prefixes, the language makes use of 'postverbs' following the verbal stem, which may be more or less tightly bound to the verb. These postverbs together with the verb form a verbal complex and may change the valency of the verb. Thus, the postverb *wark* 'block' can turn an intransitive verb like *kain* 'sit' into the transitive verbal complex *kain wark* 'guard by sitting'.

Chapter 5 contains a discussion on the Biak **noun phrase** and focuses on a number of categories expressed by the NP-final article. It discusses both the formal expression and function of specificity and givenness. It is set out how specificity in the Biak language should be seen as 'existing as an identifiable entity within the world of discourse', and it is shown how this concept of identifiability interacts with interrogative, imperative and negative mood. The chapter also pays attention to the embedding of clauses in an NP and to NP coordination.

Chapter 6, discussing the expression of **possessive relations**, is a fascinating chapter for those who are interested in the position of the Biak language with respect to other languages in the area, more on which will be said in the following section (1.3.3). A basic division is made between alienable and inalienable possession. Alienable possession is usually expressed by juxtaposition of the possessor-NP and the possessed-NP. The latter NP is closed off by a complex possessive determiner expressing person, number and gender of the possessor as well as of the possessed. Although the order possessor-possessed is the most common, the opposite order is also found. Inalienable possession is reserved for some bodypart terms, kinship nouns and locational nouns, and expressed by affixes on the possessed, each of the three groups having slightly different inflectional paradigms.

Chapter 7 discusses **reduplication**, focusing on the patterns of verbal reduplication and discussing both their form and their function. Verbal reduplication can roughly be characterized as partial Ca(C)-reduplication, copying part of the final syllable of the base. It is suggested, however, that this pattern has developed from a former system of base-initial copying. It serves to nominalize verbal stems, or to give them a durative-iterative meaning. As set out at the end of the chapter, the iterativity/ durativity may go along with a decrease in transitivity.

Chapter 8 deals with **clause structure** and **grammatical relations**. The chapter discusses both verbal and nominal clauses. The first part, devoted to the verbal clause, discusses the grammatical roles of subject and object and the manifestation of several semantic roles like destination and beneficiary. Following the presentation of verbal clause structure, attention is given to the status of the optional preverbal NP. This preverbal NP is usually coreferential with the subject, but can also be coreferential with the object. In the latter case, the object is usually but not necessarily also expressed in its canonical position following the verb. The preverbal NP under discussion is argued to occupy a clause-internal topic position, which is distinct from the preceding extraclausal frame-position. The latter position can be taken not only by noun phrases, but also by clauses, which is the reason that it is further dealt with in Chapter 10 (section 10.1). The second part of the chapter focuses on several types of nominal clauses. Whereas nominal clauses can be formed by asyndetic juxtaposition of two noun phrases, nominal clauses are usually formed by use of a copula, or by use of copula-derived predicative pronouns. The chapter closes with an excursus on locative-existential predicates, which are closely related in form to the just mentioned predicative pronouns.

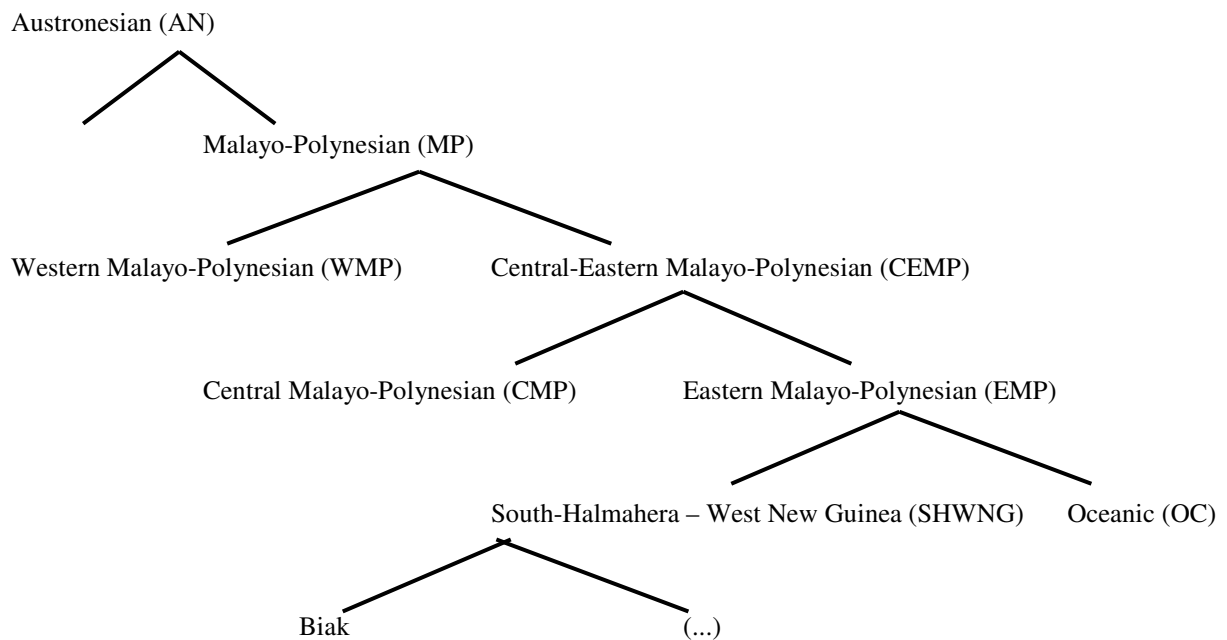
Approximately every second Biak sentence contains references to physical space, reflecting an intriguing system of reference to the absolute or relative position of entities and the direction into which they are moving. This alone is more than enough ground to devote an entire chapter (Chapter 9) to the expression of physical **space**. Moreover, the expression of space is very much tied to the structure of the noun phrase; demonstratives, motion markers and directionals are used not only as part of adverbials, but also as part of the NP-final complex articles.

The book closes with chapter 10, which surveys different types of **clause combinations**. One of the remarkable features of Biak in this respect is the frequent use of conjunctions, as well as the positions in which they are found. Quite a number of conjunctions are found in both clause-initial and clause-final position, while some conjunctions are used in clause-final position only. The chapter gives different types of clause combinations, and presents them in the order of most to least integrated. Some of the types discussed are complement clauses, relative clauses, adverbial clauses. Special attention is given to causative constructions, while the chapter closes with a discussion on 'instrumental constructions'. It is shown by means of elaborate examples how the verb *vuk* 'give', used as part of a two-clausal instrumental construction, has grammaticalized into an instrumental prefix *k-* 'use'.

1.3.2 Genetic classification

As stated above, the Biak language is classified by Blust (1978, 2003) as a member of the South-Halmahera –West New Guinea (SHWNG) subgroup of Eastern Malayo Polynesian languages. Blust gives several arguments both for the existence of both the SHWNG subgroup, as well as for the inclusion of Numfor into this group. The classification of Biak and SHWNG according to Blust is presented in Figure 2:

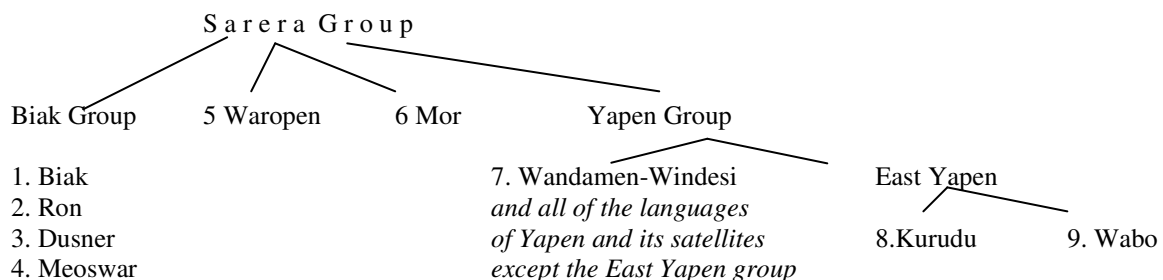
Figure 2 Biak as an Austronesian language, part of the South-Halmahera Western New Guinea subgroup



A good description of the Biak language is of importance not only to get a better view of the (contact) relations between the languages in the area, on which see 1.3.3 below – but also for the study of Oceanic languages. As Ross argues, unlike other proto-languages, proto-EMP did not diversify before part of the speakers moved away to another area and the language split up. (Ross 1995:84-85). He hypothesizes that the ancestors of proto-OC-speakers and the ancestors of proto-SHWNG spoke a virtually undifferentiated form of proto-EMP, and locates them either in Southern Halmahera, or in Cenderawasih Bay. Around 2000 BC, the ancestors of proto-OC-speakers moved away from the area via the off shore islands of Irian Jaya and Papua New Guinea towards the Bismarck Archipelago. After this group had left, the language of the left-behind underwent a series of phonological innovations to become proto-SHWNG before its speakers moved from Halmahera to Cenderawasih Bay or vice versa.

Ross agrees with Blust in that the proto-SHWNG split up into a proto-Southern Halmahera group and a proto-West New Guinea group (Ross 1995:85). As to the further subgrouping of the WNG languages, the most recent source again is Blust (1978), who discusses subclassifications proposed by Anceaux (1961) and Dyen (1965). The subclassification proposed by Anceaux is given here. His Sarera group (named after Sarera Bay, an alternative name for the Geelvink Bay or Cenderawasih Bay mentioned above) seems to coincide more or less with the just-mentioned West New Guinea Group.

Figure 3 Subclassification of West New Guinea languages after Anceaux (1961), as cited in Blust (1978:205)



On most of the above mentioned languages there are no or very few data available. The only published descriptive grammars are the one on Ambai (spoken at the island Yapen) by Silzer (1983) and the grammar of Waropen by Held (1942a). Information on the other Austronesian languages in the area seems to be restricted to word lists or preliminary surveys (Held (1942b) on Waropen, Anceaux 1961, Grimes 1990 and Stokhof 1982 containing word lists of several languages). The latter publication also contains two word lists compiled by Van Hasselt on Numfor and Biak, and a list on 'Mafor' from an unknown collector in 1895.

1.3.3 Relations to languages in the same area

According to Himmelmann, the Austronesian languages can be divided into a group of symmetrical voice languages on the one hand, and a group of preposed possessor languages on the other hand. As Himmelmann stresses, this division should be seen as a typological classification, rather than a genetic one (Adelaar and Himmelmann 2005:114). The following table lists the characteristic features of symmetrical voice and preposed possessor languages:

Table 1 Characteristic features of symmetrical voice and preposed possessor languages (after Adelaar and Himmelmann 2005:175)

Symmetrical voice languages	Preposed possessor languages
symmetrical voice alternations	no or asymmetrical voice alternations
postposed possessor	preposed possessor
no alienable / inalienable distinction	alienable / inalienable distinction
few or no differences between narrative and equational clauses	clear-cut differences between narrative and equational clauses
person marking only sporadically attested	person marking prefixes or proclitics for S/A arguments
numerals / quantifiers precede head	numerals / quantifiers follow head
negators in pre-predicate position	clause-final negators
V-initial or SVX	V-second or final

Checking the Biak language for the characteristics given above, the language qualifies as a preposed possessor language in virtually every respect. There is only a marginal voice alternation, in that only some transitive verbs can be passivized (8.3.3). Possessors are usually preposed, although occasionally one finds the order possessed-possessor. As described in chapter 6, the language makes a clear distinction between alienable and inalienable possession. Equational clauses, described in 8.5, are clearly distinguished from what Himmelmann calls 'narrative clauses'. The verb is obligatorily marked for (number, gender and) person by prefixes on the verb, referring to S/A arguments (3.2.1, 9.3.1.1). Numerals and quantifiers follow the head (3.9, 3.10), while negators are clause-final (3.7.4). Basic Biak word order, finally, is SVO.

In their discussion of Eastern Indonesia as a linguistic area, Klamer et al. (to appear) discuss the occurrence of five of the above mentioned linguistic features in a number of both Austronesian and non-Austronesian (Papuan) languages scattered over the Eastern part of Indonesia, with the inclusion of Biak. They argue that some of the features are of non-Austronesian origin, having diffused into Austronesian languages, while others have diffused from Austronesian into Papuan. Austronesian features having diffused into Papuan languages are SVO order, and the inclusive / exclusive opposition in the pronominal paradigm. Papuan features having diffused into Austronesian are the possessor-possesum order in adnominal possession, overt marking of the inalienable-alienable distinction and clause-final negation.

Focusing on mutual influences between Biak and the languages of the Bird's Head, the following similarities have been noted. Reesink (1998:611-613) points to a number of lexical borrowings from Biak into several languages of the Bird's Head, as well as to a number of possible sound correspondences. In addition, he points towards the placement of aspect markers in sentence-final position (in Biak: *kwar* 'already', discussed in 3.7.4), and to the use of postnominal spatial nouns, which the present book discusses in 6.2.3. In his comparison of Eastern Bird's Head languages, Reesink (2002d) points towards the formal similarity between the form of the verbaliser (*e*)*be* across several languages, including Biak *ve*, which the present book discusses in 4.3.1.5. Some other features pointing towards contact with Biak are the use of forms derived from *an(-i)*, which functions as a marker of givenness in Biak (5.3.1), the use of 'verbal adjuncts' similar to *wark* 'block' and *epn* 'push.tight' (discussed in 4.3.2 of the present book and also mentioned in Miedema and Reesink 2004:39), and the use of a question marker *e* (cf. 3.11).

1.4 Fieldwork, corpus, aims and methodology

1.4.1 Fieldwork trips

The data for this thesis were collected during three periods of field work, with a total duration of 15 months. My first stay at Biak, from February till October 2001, was preceded by a one-month period of arranging visas in Jakarta. I also used this period to improve my skill in Indonesian by attending a language course in Yogyakarta. Having arranged all visas for my wife Talitha and myself, we left for Biak at 17 February.

The first weeks on the island we spent at a guest family in Biak town. During this period, we learned some local Malay, and tried to find out what was the best place to do my fieldwork. After quite a few difficulties to find a place to live, we eventually ended up in Wardo, a village in West-Biak, where we came to live together with a young female vicar of Moluccan origin. We made good contacts with the inhabitants of the village, and the fact that we had come together gave us good opportunities to build up contacts with both men and women. During this first field work period I collected many hours of spoken Biak, and transcribed approximately 5 hours of text.

From April to September 2002, I visited Biak for the second time, this time without my wife (and child-to-come). I had decided to move to the neighboring village Yomdori, the main reason being that -unlike Wardo- the village Yomdori had electricity, so that I could use my laptop on a regular basis. This time I stayed with a guest family, and lived in very comfortable conditions compared to the year before: there was electricity, water from a well instead of from a drum, a family cooking for me, a cooler house, and people speaking Biak around, which was a great advantage in learning to speak the language. During my second stay, I collected quite a number of other texts, transcribed another 5 hours of text (see 1.4.2), while I discussed many of the questions that had arisen while analyzing the data collected during my first stay.

As for practical reasons a third trip to Biak was not possible, I decided to invite one of my language helpers, Chris Padwa from Biak town, to come over to the Netherlands for a three-month period, from November 2004 until February 2005. My choice of him was motivated not only by his skill in Biak, but also because he had been to the Netherlands before, had a sister with whom he could stay, had a passport etc. Although from a linguistic point of view it

would have been better to invite someone from Wardo instead of from town, this would have been much more complicated and probably even impossible. During this last 'fieldwork period' I tried to get answered most of the remaining questions that had risen in the years before, checked the examples that I had taken up into my thesis, and checked a word list of about 2400 entries.¹²

1.4.2 Collection of the data and corpus

Throughout my fieldwork, I was very much focused on the elicitation of data in their natural setting. In addition, I have tried to obtain data from as many different genres as possible. The high priority given to the naturalness of data and diversification of genres has led to a certain compromise with respect to the dialect choice. As dialect variation still awaits further investigation (cf. 1.2.2), it would have been safer to restrict my data to spoken language from one or two villages only. From the perspective of naturalness of speech and diversification of genres, however, it appeared more logical or economical to include texts from other villages also. Thus I recorded our spontaneous introduction to the attendants of a meeting in Sopen, people spontaneously telling each other jokes at the island of Myosbefondi (a small island north of Supiori), or speeches by inhabitants from other villages at a wedding in Wardo. As I could not find any singers of traditional *wor*-songs in Wardo, I recorded one in Karnindi and one in Sopen, and the best narrators of the Manarmaker myth were said not to be found in Wardo, but in Biak town (Efraim Mariën) and in the village Sopen (Marinus Wanma). As can be seen in the overview of recordings in the appendix, however, relatively most recordings are from Yomdori and the neighboring village Wardo (40 out of 90 recordings). Moreover, the great majority of texts have been checked by speakers of the Wardo dialect, and dialect differences appeared to be marginal (compare 1.2.2 above).

A good effort was made to obtain data from speakers of different ages, education level and sex. While my data show a successful spreading of age and education level, it is highly biased towards male speakers. Although it was possible to obtain some expository discourse and short stories from women (like KA, KS, MW, MY,) it appeared very difficult to record women's conversation or other types of women's speech in its natural setting.

During the first fieldwork period, most speech was recorded with a Sony cassette recorder, type TCS-580V, and a Sony microphone ((ECM MS907). Later on, I shifted to the use of a Sony digital video camera (DCR TRV15E), using either the built-in microphone or the just-mentioned one. A handful of recordings were done with a hidden recorder, but in most cases I informed people beforehand that I planned to record them. In the few cases that I had used a hidden recorder, I informed people afterwards.

The recorded texts were transcribed with the help of a number of people. While a few texts were transcribed with the help of Chris Padwa in town, by far the great majority of texts were transcribed together with inhabitants of the neighboring villages Wardo and Yomdori. I spent hundreds of hours with Timo Yembise (†) in Wardo, a retired teacher, who was born in Wardo but had lived at different places at Biak or the surrounding islands. Later on, I also worked with Yoel Awak from Yomdori, a man of around forty, and Pontinatus Womsiwor, who was approximately 35 years old. Other people that need to be mentioned are Yafet Ap (approximately 50 years old), with whom I also checked a number of texts, and Thomas Padwa (17 years of age), who helped me to transcribe a conversation in local Malay. We always used local Malay and sometimes Indonesian as the intermediary language.

¹² This word list will be published in a later version of this book.

Different methods were adopted to come to a transcription. In the beginning, I prepared a transcription at home and checked this with my informant, by listening over the tape together with him again. During the last months of my second stay, however, I did not always prepare a transcription at home any more, because I was so trained in listening to the tapes that I could note a transcription immediately while checking it with my informant. For a number of texts, I asked an informant to write a transcription, which I then checked at home, and rechecked with an informant again. For each transcribed sentence, I asked for a free translation, except when I was sure about the intended meaning. The aim of a transcription was not only to come to a free translation, but also to a morpheme-by-morpheme gloss of the transcribed text. In practice, I noted glosses (or translations of words given by my informant) predominantly at those places where I had not met these glosses before. Already in the field I entered these transcribed texts into Shoebox, (using the spelling also adopted in this publication), printed them out and had them all read over by at least one informant.

The program Shoebox into which the texts were entered allows one to produce interlinear texts and an interactive lexicon. For the great majority of texts, new morphemes were entered into the Shoebox lexicon, which resulted in a lexicon of approximately 2300 entries.¹³ Approximately 30 to 40 percent of the texts were fully interlinearized with help of the program.

Although the data in this thesis are based primarily on the collection of transcribed texts, elicitation was used to complete the paradigms, or to test hypotheses based on the data found in the texts. Throughout this thesis, examples based on elicitation are marked with *el* instead of a code referring to the text. One of the trickiest aspects of elicitation is possible interference from the intermediary language, in this case local Malay or Indonesian. I always tried to avoid, therefore, to ask for translations of Malay into Biak. A very fruitful way to elicit data without too much influencing the naturalness of speech has been to use the elicitation materials provided by the Max Planck Institute for Psycholinguistics, Language and Cognition in Nijmegen, the Netherlands. Thus I used two books with pictures, designed by Melissa Bowerman (unknown date and 1999) for research on topological relations and positional verbs, and asked people (in their own language) for each picture to give a description of what they were watching. In addition, I used several series of films, asking people for a description of the scenes. In this way, I elicited data on causative constructions, on cut and break verbs, and on descriptions of complex events, the latter providing me with interesting data on relative constructions.¹⁴ For elicitation on deixis, I made use of a test designed by Wilkins (1999). Finally, I made use of the picture book *Frog, where are you* (Mayer, 1994) showing pictures of a story about a boy looking for his run-away frog, and asked four people to tell the story with the help of the picture book.

A complete overview of all transcribed texts can be found in Appendix C. This section is restricted to a summary and a short discussion of certain biases. A summary of the recordings ordered by genre is given in Table 2. The division into genres has been made by the

¹³ I cannot give more precise data, as a number of entries were polymorphemic, created only to facilitate interlinearizing (like *is* '3SG.PRED', which if not existing as an entry, would be interpreted as *is* 'creep'). At the present state of research, I have not yet filtered out these entries from the total of 2650 entries.

¹⁴ The films that I made use of were provided by the Max Planck Institute for Psycholinguistics Language and Cognition, in Nijmegen. Specifically, I used the films grouped as 'Caused Positions', the films grouped as 'Cut&Break', and those grouped as 'Staged Events', all part of the 'CD-Manuel for the field season 2001 [2 discs]' (Steve Levinson and Nick Enfield 2001).

researcher, and is (at certain points) open to discussion. Thus, the division between short stories and jokes may in future prove to be gradual, while it is also questionable whether animal stories and short stories indeed constitute different genres. In the table below, the numbers in the second column in general refer to the number of texts recorded. The penultimate row of this column, however, gives the number of informants and the number of pictures or film scenes described, so that an expression like '3 informants x 68 pictures' should be read as '68 pictures each described by 3 different informants'.

Table 2 Overview of transcribed texts, ordered by genre

<i>genre</i>	<i>quantity</i>	<i>time (min)</i>
narrative: short story – non-animal	6	15
short story – animal	8	39
origin story	5	59
Manarmaker myth	2	66
<i>(narrative total)</i>	<i>21</i>	<i>201</i>
exposition	15	72
performative	3	31
jokes	7	19
speeches	5	60
radio program	1	8
prayer	1	4
song, non-wor	6	19
wor-song	2	7
conversation	3/2	39/19
sayings	<i>12 sayings</i>	<i>few minutes</i>
description (of pictures, film scenes)	<i>3 informants x 68 pictures</i> <i>3 informants x 71 pictures</i> <i>3 informants x 46 scenes</i> <i>2 informants x 46 scenes</i> <i>1 informant x 105 scenes</i>	<i>few hours</i>
TOTAL	64 <i>+ 763 descriptions</i>	478 (± 8 hours) <i>+ few hours</i>

Most texts are narratives, which are relatively easy to obtain. While most of the narratives were obtained in a setting of the researcher asking one person to tell a story, I sometimes asked a number of people to sit together with the narrator and listen to the story. The genre 'myth' consists of two versions of the Manarmaker myth, one told in town, the other told at mountain *Yamnaibori* in Sopen, which is the village where the initial part of the story takes place. I choose to have this narrative told twice, because I was interested whether the narration of the story from the place where the story took place would influence the way in which the story was told, which indeed seems to be the case. In addition, people said that the first version of the story was incomplete. Although this narrative seems incomparable with other narratives in its length and in its lasting cultural importance, it is clear that many passages of the Manarmaker myth are also found in origin stories.

I have collected different types of expository and performative discourse, serving a number of different aims. Both types of discourse are relatively easy to transcribe, and provide the researcher with well-formed sentences. In addition, they provide valuable information about cultural practices, often accompanied by lexical information not attested elsewhere in the corpus. While expository discourse tells about practices that are generally not visible at the moment of speaking, in my definition performative discourse tells about practices that are

being performed at the very moment of speaking, like people telling while they are cutting sago, or working the land. Some expository discourse was recorded with rather specific aims in mind. Thus I asked for descriptions of fictive journeys around the island to test systematic references to space (RS and RW),¹⁵ while I asked for the description of a past and a future visit to town to find out how that would influence the use of specificity markers. A showing around in the gardens (AT) provided me with a large amount of equational clauses, clauses expressing proper inclusion and additional data on deixis. A showing around at the shore, on the other hand, revealed interesting data on the role of reduplication in reference to inherently durative activities, and again provided useful data on reference to space (WS).

All but two of the jokes were told in a rather natural setting of men telling each other jokes, once even ignorant of their being recorded. The label 'speech' covers two speeches held at a traditional wedding party, speeches held during a village meeting on land problems, a speech introducing my wife and me to the inhabitants of the village Sopen, and speeches held when a bridegroom's relatives asked his parents in law for the hand of their daughter. The corpus contains two radio recordings that were handed over to the researcher by the announcer. Although these were transcribed and analyzed, because of the artificiality of the speeches I have not made any further reference to these texts in this thesis. Both the prayers and the sermons were recorded during church services. While one of the sermons is read from paper, the other two are spontaneous summaries following the Indonesian sermon. The songs are either religiously inspired or not. Some of them are recorded by the researcher, while two have been taken from a CD recorded and compiled by Philip Yampolsky, with permission of the compiler and the singers (or their relatives).

Despite my efforts to collect as much conversational discourse as possible, the amount of conversational discourse is relatively small, and future research would very much benefit from a more thorough study of conversations. Two remarks are in place, however. First, although the corpus contains relatively few texts that can be qualified as discourse, quite a few texts from other genres contain conversational discourse. The Manarmaker myth in Sopen, for example, was told among a group of people regularly interrupting and discussing the story, while the story was told in a very lively manner, often citing conversation between participants in the story. The same is true for the exposition on the earthquake in Wardo, which is also interrupted by questions and short discussions. Second, during my first stay at the island, I could understand the language to quite an extent and always took my notebook with me. I have listened to quite a lot of conversations, and made very useful notes especially about aspects of the language like mood, topicality and focus.

1.4.3 Framework, aims and methodology

The aim of this study is to present the main aspects of Biak grammar to a general public of linguists. The study is written as part of Pieter Muysken's Spinoza research program 'Lexicon and Syntax: areal studies in Eastern Indonesia'. This program mentions the Biak language and culture as a key to the areal linguistics of Eastern Indonesia.

In writing up this grammar my aim has been to attempt a description that is:

¹⁵ The two-capital codes in this section refer to the codes used for the narratives as shown in the overview of recordings (appendix B). Throughout this thesis, examples of Biak sentences are followed by a code in which the first two capitals correspond to the code of the text, while the following two letters reflect the place of the sentence within this text. Thus, a code like 'RAaa' refers to the first sentence (usually corresponding to a record in the Shoebox file) in the text coded RA.

- text based,
- data oriented,
- accessible for a wide public of interested linguists,
- and answers questions that have risen during earlier research in the area, as formulated in the program mentioned above.

In my original proposal to NWO (Nederlands Wetenschappelijk Onderzoeksinstituut), the organization that financed the research, I hoped to produce not only a reference grammar like the present one, but also 'to provide extensive wordlists in which wordlists of earlier sources are integrated', and 'to produce a collection of extensively annotated texts of various genres in multimedia format'. Although I have been working at the creation of a website, and have worked to produce an extensive wordlist, limitations of time forced me to focus on the writing up of the grammar. I will postpone the publication of word lists to a later version of this book, which will be accompanied by a CD-rom containing texts in multimedia-format, or linked to a website containing the texts and recordings. Ideally this site will be accessible not only for linguists, but also for Biak people that are interested in their language and culture.

This study has not been written within an all-encompassing theoretical framework. Rather, insights from various traditions were used eclectically. These insights were used both as a heuristic tool and as a framework for presenting the data. An important criterion whether or not to make use of a certain theoretical approach or theoretical concept has been the question whether it gave a clearer systematic account of the data than when the use of the concept was avoided.¹⁶ More importantly, this work intends to be as data-oriented as possible, and avoids answering those theoretically driven questions that do not help to give a better account of the data. To give an example, in Chapter 2, I use the term 'bound morpheme' to avoid an endless discussion on the - theoretically driven- question whether we have to do with clitics or affixes. Another example is my description of reduplication in Chapter 7, where I do make short references to optimality theory (OT), but have chosen not to use OT as an all-encompassing framework. In my view, this would make the work less accessible to both present and future linguists, and would probably raise a number of theoretically driven questions that do not rise in the present work and can therefore remain unanswered.

Not only have I been inspired by insights from several traditions, I have also made use of several descriptive works on individual languages or groups of languages and of a number of typological works. During my studies in 1993 through 1997, I was schooled in government and binding theory, but also developed an interest in typological variation, reading through most of the work of Shopen (1985), and works like Comrie (1981). As for phonology, I took some courses in Optimality Theory. In later years, I read (parts of) Jackendoff's *Foundations of language* (Jackendoff 2002), Bresnan (2001) and Kroeger (2004) on lexical functional grammar, Simon Dik on functional grammar (Dik 1997), Goldberg's *Constructions* (Goldberg 1995), and Croft's cognitive linguistics (Croft 2004). Insights from these works can be found throughout this study. Some descriptive works of great value were Van Enk and De Vries (1997) on Korowai, Bowden (2001) on Taba, and shorter grammars like Reesink (1999) on Hatam or De Vries (2004) on Inanwatan. In an initial stage of the research, Van Hasselt (1905)

¹⁶ It should be noted that it is principally impossible to make a distinction between theoretical concepts and non-theoretical concepts. Even at the 'lowest level' of language description, one has to make use of theoretical concepts like phonemes to come to a systematic description of data. Every term, in other words, is 'solidified theory' (cf. Booij 'een web van woorden', inaugural lecture of 8th September 2005, University of Leiden, which can be found on the internet: http://www.letteren.leidenuniv.nl/forum/content_docs/oratie/oratie_gbooiij.pdf).

and Steinhauer (1985) were of value to get an initial grip on the data. To relate the present language description to research questions concerning the relations between languages in the area, I benefited from descriptions like Foley (1986), Foley (1998), Reesink (1996), (1998), the sketches and overview article in Reesink (2002a), from Klamer (2002) and Adelaar and Himmelmann 2005. For a typological classification of Biak data I made use of works like Foley (1997) on anthropological linguistics, Haspelmath (2001) and Lynch, Ross and Crowley (2002) on Oceanic languages.

1.5 Earlier literature in and on the Biak language

Compared to other languages in Papua, Biak has a long tradition both of publishing in the language, and publishing about the language. Especially the former tradition has led to an impressive amount of publications. Here I just mention the main publications.

After the first missionaries had arrived in Papua (Nederlands Nieuw Guinea) in 1855, they immediately started to publish in and about the language of the people they met in Mansinam, who originated from Numfor. According to Kamma (1977: 96), the first missionaries Ottow and Geissler made their first word list in 1857, which had grown into a list of a thousand words in 1858 (Ottow and Croockewit Hz. 1862). Geissler published several bible stories and Christian songs in the sixties and seventies, while the first translation of a bible portion (Gospel of Mark) was published in 1871. A first dictionary of 'Noefoorsch' was finished by J.L. van Hasselt in 1876, containing wordlists Noefoorsch-Dutch and Dutch-Noefoorsch, while the same year saw a publication of a very short grammar of the language from the same author. An improved version of the Noefoorsch-Dutch part was published in 1893. Translations of other bible portions followed in the years after, a larger collection being the collection of Old Testament stories translated by F.J.F. van Hasselt in 1932. The same author, son of J.L. van Hasselt, published a more elaborate grammar than the 1876 one in 1905, while an impressive dictionary of the language was published by his son J.L. van Hasselt in 1947. This dictionary contains a few thousand entries and contains valuable information on words linked to cultural practices that have now become extinct. In addition to the grammar, F.J.F. van Hasselt published a book with 'Nuforic fables (Dutch: fabels) and narratives' in 1908, containing 47 narratives in Numfor translated into Dutch. Another collection of stories was collected / translated by an unknown collector / translator in 1911. A peculiar publication is the learning book on Insulinde, written in Biak and published in 1900. A collection of folk songs by Sam Kapisa was published in 1977, while August Kafiar finished a book on Biak sayings in 1983, which discusses 100 Biak sayings in Indonesian. At present, Zacharias Sawor and Hein Steinhauer are preparing the publication of a number of Biak narratives collected by the missionary F.C. Kamma.

The earliest books for the teaching of Biak (or Numforic) at school were published in 1867 (unknown author), while W.L. Jens wrote a series of three books in 1885. A more recent teaching book is *surat wasya*, a 2-volume book for learning Biak written by I.S. Kijne in 1950. As mentioned above, the last decade has seen a number of new initiatives to have the language be taught at schools, leading to a number of small books by Enos Korwa, a more elaborate pre-publication by Fautngil and Rumbrawer in 2001, and possibly a number of other initiatives.

In addition to the 1947 dictionary, the following post-war linguistic literature needs to be mentioned. Suparno published a Biak-Indonesian dictionary of the language in 1975, largely based on Van Hasselt 1947, but also containing a number of new entries, and accompanied by sentences showing the use of words in context. The same author wrote a grammar of the

language published in 1983, while Fautngil and others wrote a syntax of the language published in 1994. The first English publications in recent linguistic literature are Patz (1978) and Steinhauer (1985), only the latter of which comes up with new data. Recently, a short description of the language by the same author was published in Adelaar and Himmelmann 2005. Finally, the Biak student Suriel Mofu has written a short Biak morphosyntax as his M.A. thesis in Oxford.¹⁷

¹⁷ Suriel Mofu is a young man of Biak origin, and still relatively fluent in the Biak language. Our first contact, by mail, dates from spring 2004, when as a student in linguistics in Oxford he asked for some suggestions for a paper on Biak. I then made some suggestions, and sent him a preliminary version of the chapter on word classes. We were in contact again in October 2005, when he appeared to have written his M.A. thesis on Biak morphosyntax. I have decided not to read his work until the publication of this book, in order to protect the independence of my findings, and in order not to be confused by his possibly different approach.

2 PHONOLOGY

This chapter discusses the most important phonological aspects of the Biak language. Section 2.1 discusses the phonemic inventory. Section 2.2 serves as a kind of intermezzo, introducing several concepts that are needed to describe the rest of the phonology. It gives a definition of the intonational phrase, and shows how the right boundary of the intonational phrase forms the domain for epenthesis of *e* in cluster-final words and in words ending in a long vowel plus a consonant. Section 2.3 discusses glides and gives arguments for the vocalic character of the offglide *i* and the consonantal character of the offglide *w*. Section 2.4 gives an elaborate account of Biak phonotactics, which are remarkable in allowing for complex onsets and for coda clusters. Section 2.5 discusses stress-related phenomena and vowel length. The section gives an overview of attested stress patterns in words, and uses the concepts of floating morae and long vowels to give an account of the system. It will be argued that the language lacks lexical stress, but that the concept of long vowels suffices to describe the attested patterns. Short attention will be given to the concept of the intonational phrase as domain for intonational contours. Section 2.6 gives a number of phonological regularities. Section 2.7 gives some aspects of the special phonology used in songs, and section 2.8 motivates the adopted spelling.

2.1 Phonemic inventory

2.1.1 Consonants

The consonant inventory of Biak is shown in Table 1. The loan phoneme /l/ is shown in bold, and the orthographic representation is given between parentheses.

Table 1 Biak consonants

		Bilabial	Labio-dental	Alveolar	Palatal	Velar
Stop	Voiced	b (b)		d (d)		
	Voiceless	p (p)		t (t) ¹		k (k)
Nasal		m (m)		n (n)		
Fricative	Voiced	β (v)				
	Voiceless		f (f)	s (s)		
Lateral				l (l)		
Trill				r (r)		
Approximant		w (w)			j (y)	

1: the /t/ is very infrequent, however, and some older people still realize /t/ in loanwords as [s]. Compare the end of this section.

Most consonants are attested in word-initial, word-medial and word-final position. The only exceptions are the consonants /b/, /d/ and /y/, which are not found in codas.¹The following list sums up the consonants and gives their realization as well as their distribution.

- /b/: [b], a voiced unaspirated bilabial plosive. /b/ is not found in codas.
- /d/: [d], a voiced unaspirated alveolar plosive. /d/ is not found in codas.
- /p/: [p], a voiceless unaspirated bilabial plosive. /p/ is usually released lightly before a pause.
- /k/: [k], a voiceless unaspirated velar stop. /k/ is usually released lightly before a pause.

¹ For /y/, this depends on the analysis of a sequence of /VI/ (where I can be /i/ or /j/) as /Vi#/ rather than /Vy/, cf. section 2.2 on glides.

/k/ can also be realized as [ʔ], a voiceless unaspirated glottal plosive, also released lightly before a pause. The use of [k] versus [ʔ] seems to depend on several factors. Some dialects, like the dialects of Northern Biak, show a strong preference for [ʔ], whereas others, like the Wardo dialect described in this paper, show preference for [k]. I found some Wardo speakers, however, using [ʔ] from time to time, and others, who used [k] in sermons or prayers, whereas they showed a preference for [ʔ] in other genres. Whereas the distribution of [k] versus [ʔ] definitely depends partly on dialect and genre, the rules for their exact distribution remain unclear.

/k/ is voiced after nasals in the same intonational phrase, as in /wonkor/ [wɔŋ¹gor] 'crocodile'.

- /t/ [t], an unvoiced unaspirated alveolar plosive. /t/ is usually released lightly before a pause. The phoneme /t/ is very infrequent, on which more will be said at the end of this section.
- /m/ [m], a voiced bilabial nasal.
- /n/ [n], a voiced alveolar nasal. /n/ is realized as [ŋ] when preceding /k/ in the same word, as in /wonkor/ [wɔŋgor] 'crocodile' (compare section 2.6.2.3). /n/ may be realized as [m] preceding /p/, /b/, or /v/ in the same intonational phrase.
- /v/ [β], a voiced bilabial fricative. /v/ is realized as [b] after nasals within the same intonational phrase, as in *su-raswan βoi* '3DU-go.fishing while', which is realized as [sura'swamboi].² The difference in realization between /w/ and /v/ may be very small, and seems to be neutralized for several speakers; one of my consultants realized both /v/ and /w/ as [w].³ The realization of /v/ can also come very close to the realization of [b], which is probably one of the reasons why children have difficulties in producing the sound as [β], and often use [b] instead.⁴ (The main problem for these children, however, is that [β] is not part of the phonetic inventory of their mother tongue, which is local Malay or Indonesian).
- /f/ [f], a voiceless labiodental fricative. It is in free variation with bilabial [ϕ].
- /s/ [s], a voiceless alveolar fricative.
- /l/ [l], a voiced alveolar lateral approximant. Whereas originally the /l/ is not found in the Biak language and should be considered a loan phoneme, nowadays it is found in a sort of 'popular speech' as an alternative to /r/ in certain contexts, discussed at the end of this section.
- /r/ [r], a voiced alveolar trill. In fast speech /r/ may be realized as

² Although the phonemic status of /b/, /v/ and /w/ is clear in present-day Biak, the phonemic difference between /b/ and /v/ is not recognized in the earlier sources by Van Hasselt on Numfor, but is given in Steinhauer (1985), (2005), who describes the dialect of Korido. This may imply that the dialect described by Van Hasselt did not make a phonemic difference. It is more probable, however, that Van Hasselt did not make use of the concept 'phoneme', and therefore did not recognize the different functions of /b/ and /v/ in the phonemic system.

³ This may explain why J.L. Van Hasselt speaks about 'inconsistent pronunciation of 'b' and 'w', where words starting with 'b' are pronounced with /w/' (J.L. Van Hasselt 1876a, introduction, J.L. Van Hasselt 1876b, 6-7³). F.J.J. Van Hasselt speaks about 'alternation between 'b' and 'v'. ' (1905:6)

⁴ The ambiguous character of /v/ in terms of pronunciation has led to a number of spelling problems. Because the Van Hasselts did not recognize a phonemic difference between /b/ and /v/, they used 'b' for both (or sometimes 'w' if this would, according to them, fit the pronunciation better). For the Biak New Testament produced in 1990, the choice was made to spell /v/ as an underscored v. Unfortunately, however, some words are spelled wrongly, which sometimes leads to serious differences in meaning. One example of such a mistake is the word *rovebor* 'crowd, 'which is consistently spelled as *rovevor* 'bad things.' (Not surprisingly, people have difficulties in reading the New Testament at this point.) The spelling chosen in this thesis is given and motivated in section 2.8.

the alveolar flap [r]. It may be realized as [d] when preceded by another /r/ (cf. section 2.6.3). A sequence of a /n/ and /r/ is realized as [ndr], while /mr/ is realized as [mbr].

/w/ [w] bilabial voiced labio-velar approximant.

/y/ [y] voiced palatal approximant. It is neither attested in word-final position, nor in final clusters.

The following tables give contrasts between the phonemes in word-initial, root-medial intervocalic and word-final position in identical environments. All the consonants are contrasted with more or less similar consonants.

Table 2 Consonant contrasts in word-initial position

Bilabials and labiodental: /b/-/p/-/m/-/v/-/w/-/f/

<i>ban</i>	2SG.wash	<i>man</i>	bird
<i>w-an</i>	2SG.eat	<i>fan</i>	2SG.feed
<i>pan</i>	2SG.touch	<i>var</i>	side
<i>barbor</i>	quantity	<i>varvor</i>	badness

Alveolars and palatal: /d/-/t/-/n/-/s/-/r/-/y/

<i>d-as</i>	3SG-swim	<i>ras</i>	day
<i>n-as</i>	3PL.INAN-swim	<i>s-as</i>	3PL.AN-swim
<i>y-as</i>	1SG-swim	<i>tas</i>	bag (loan)

Voiced stops: /b/-/d/

<i>bo</i>	upside	<i>do</i>	inside
<i>bark</i>	2SG.stay	<i>d-ark</i>	3SG-bite

Voiceless stops: /p/-/k/-/t/

<i>pas</i>	2SG.pluck	<i>k^μ-as⁵</i>	1PL.INC-swim
<i>tas</i>	bag (loanword)		

Nasals: /n/-/m/

<i>n-an</i>	they (inan) eat	<i>man</i>	bird
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Fricatives, trill and approximants: /f/-/s/-/r/-/w/-/y/

<i>fan</i>	2SG.feed	<i>w-an</i>	2SG-eat
<i>s-an</i>	3PL.AN-eat	<i>y-an</i>	1SG-eat
<i>ran</i>	fly		

Table 3 lists the contrasts in root-medial intervocalic position. When minimal or semi-minimal pairs could not be found, another word containing an intervocalic consonant has been given.

Table 3 Consonant contrasts in root-internal intervocalic position

Bilabials: /b/-/v/-/p/-/w/-/m/-/f/

<i>fába⁶</i>	2SG.greedy	<i>kavasá</i>	<type.of.canoe>
<i>k<y>apaf</i>	<3SG>fall	<i>kawasa</i>	inhabitants
<i>i-kámar</i>	3SG-carry.on.shoulder	<i>fafayaf</i>	ferocity

⁵ The sign μ indicates a floating mora, to which we will come back later on in this chapter.

⁶ The accent on top of a vowel is used to indicate vowel length. For the relation between vowel length and stress, see section 2.5.4.

Alveolars: /d/-/n/-/s/-/r/-/t/

<i>kodon</i>	buttocks	<i>konor</i>	<title>
<i>i-susu</i>	3SG-withdraw	<i>man-sórom</i>	bird-heron
<i>oto</i>	car (loan)		

Stops: /b/-/d/-/k/-/p/-/t/

<i>babo</i>	2SG.new	<i>adáf</i>	bridge
<i>kaku</i>	true	<i>kapu</i>	defecate
<i>útin</i>	hundred		

Nasals, fricatives, trill and approximants: /m/-/n/-/v/-/f/-/s/-/r/-/w/-/y/

<i>samom</i>	comb (of bird)	<i>manora</i>	fish spear
<i>v<y>avur</i>	<3sg>expel	<i>mafu</i>	dream
<i>kasun</i>	small (n)	<i>karui</i>	stone
<i>káwán</i>	long	<i>káyám</i>	together

Table 4 lists contrasts in word-final position. As indicated above, /y/ is not attested in word-final position. We will come back to the analysis of /w/ and /y/ in 2.2 below.

Table 4 Consonant contrasts in word-final position

Bilabials: /p/-/m/-/v/-/w/-/f/ (/b/ is not attested in word-final position)

<i>sop</i>	bottom	<i>d-om</i>	3SG-cut.forest.or.grass
<i>d-ov</i>	3SG-bark	<i>d-of</i>	3SG-hide
<i>d-ow</i>	3SG-lift		

Alveolars: /t/-/n/-/s/-/r/ (/d/ is not attested in word-final position)

<i>d-as</i>	3SG-swim	<i>d-an</i>	3SG-eat
<i>i-mar</i>	3SG-die	<i>kéret</i>	clan

Voiceless stops, nasals, fricatives: /p/-/k/-/t/, /m/-/n/, /f/-/s/

<i>d-ap</i>	3SG-call	<i>rák</i>	group (in war)
<i>kéret</i>	clan	<i>rám</i>	leaf
<i>ran</i>	fly	<i>swáf</i>	distance
<i>ras</i>	day		

As indicated in Table 1 above, the phoneme /t/ is very infrequent in the language, while the phoneme /l/ is mentioned as a loan phoneme. Some remarks need to be made about both of these phonemes.

First consider the phoneme /t/. On the one hand, there are several indications that the phoneme /t/ used not to be part of the language. One of the clearest proofs of the former absence of /t/ is the systematic relation between /t/ in neighboring languages or the proto-language and /k/ in the Biak language. Thus, Biak *kans* 'weep' is related to PAN *tangis, Biak *kyor* 'three' is related to PAN *telu, Biak *kukr* 'with' is related to Windesi *tutār* (Van Hasselt 1905: 58), Biak *fik* 'seven' is related to PAN *pitu and the petrified prefix *k(a)-* is clearly a reflex of PAN *t(a) which is reflected as *ta* in Taba, for example (Bowden, 2001: 218v). An interesting article about the shift of *t to k is Blust (2004), which discusses the shift in a number of Oceanic languages and languages of Indonesia, including Biak.

Another sign that /t/ used not to be part of the phonemic inventory is the speech of some older people who realize the /t/ in loanwords as [s]. One older woman in the village where I lived,

for example, would refer to my wife /talita/ with [sa'risa]. Likewise, a consultant of mine spontaneously gave [saun] as a possible realization of the Indonesian *tahun* 'year'.

On the other hand, several phenomena show that /t/ has become part of the phonemic inventory. First, all of my consultants realize the /t/ in loanwords as [t], which is not surprising given the fact that they are all fluent in Indonesian, which has /t/ as a phoneme. Since at least the thirties of the preceding century, people have been given Western names that may contain a /t/, like *Timo* or *Maurits*.

Second, several words in the corpus contain a /t/. Although it is clear that many of them are of foreign origin, the fact that /t/ is realized as [t] shows that /t/ has become incorporated into the system of phonemic sounds.⁷

Concluding, the systematic relation between PAN *t and Biak *k* and the fact that several older people use [s] for /t/ in loanwords shows that /t/ used not to be part of the phoneme inventory in earlier stages of the language. However, /t/ has by now become part of the phonemic inventory, though it is still very infrequent.⁸

The other phoneme to be discussed is /l/. Neither in the corpus, nor in the dictionaries by the Van Hasselts (1876, 1893, 1947) and Suparno (1977) have any forms with /l/ been attested, except in some loan words explicitly marked as such (Van Hasselt 1947:131). This makes the status slightly different from that of /t/, which is also found in some words that have become part of the language. Although some older people realize /l/ as [r] in loanwords (like one older person who realized *kapal* 'ship' as [kapar]), the great majority of speakers realize /l/ in loan words simply as [l].

The realization [l] is not only found in loan words, but also found as an alternative realization of the phoneme /r/. This alternative realization is possible in a number of words and is used for special pragmatic effects.⁹ Although no examples were attested in the corpus of spontaneous speech, my consultants provided expressions like the following.

⁷ The following words in the corpus contain /t/: *tatawai* 'earth quake', *batawe* 'cassava', *tabea* '<greeting>', *mantar* 'extremely', *kéret* 'clan', *utin* 'hundred', *atam* 'roof on canoe', *ka(s)tera* 'maize'. For most of the words in the corpus containing /t/, a foreign origin can be settled. This is true for *tatawai* 'earth quake' – in the Numfor dialect of 1947 *tatewai* –, which according to F.J.F. Van Hasselt & J.L. Van Hasselt (1947:231) is a loan from Windesi (or Wandamen). *Batawe* 'cassava' may be related to Portuguese *batata* 'sweet potato', with lexical shift from 'sweet potato' to 'cassava', both non-endemic types of food. *Tabea* is a greeting from local Malay, which I have not heard being used by non-Biak speakers of Malay, which suggests that it is not part of the local Malay used nowadays. The origin of the word *kéret* is unclear. As to *mantar*, Reesink suggested (p.c.) a link between Hatam *ntig~ndig* 'big', which would be *mantar* in Mansim, as Hatam *-ig* corresponds with Mansim *-ar* (cf. Reesink 2002, 298). The origin of the word *utin* 'hundred', finally, remains unclear, although it is clear that it is a local SHWNG-word; it is found in Taba (*utin*), and related forms are found in Papuan languages of the Bird's head like Sougb (*huntun*), Meyah (*wutin*), Hatam (*untin*) and Mpur (*untin*) (Reesink 2002d:36).

⁸ This thesis describes just one of the many Biak dialects. The dialects do not exist in total isolation, but Biak people have a long tradition of traveling. This means that it is perfectly possible that certain words containing /t/ have been taken over from other dialects. Several consultants told me that there is at least one dialect in which the /t/ is used more frequently. This is the 'Betew' or 'Beser' dialect, spoken in the Raja Ampat region: on the Ayaw islands, Kafiau and some settlements at Waigeo island.

⁹ A comparable effect can be reached by the (probably less frequent) alternation of /s/ and /t/. Examples are *kanantur* 'tackle' as a variant of *kansur* 'tackle', and *troms* 'strike.hard' as a variant of *sroms* 'knead'.

- *frúr* 'make' vs. *flúr* 'strike hard' as in *wa-flúr i* '2SG-strike.hard 3SG' -> '(you) strike him hard.'
- *pram* 'strike hard' vs. *plam* 'strike hard' as in *wa-plam i* '2SG-strike.hard 3SG' -> 'you strike him hard'
- *pláf* 'blind' as variant of *práf* 'rust(y)', as in *pan pláf i* '2SG.touch blind 3SG' -> 'make him blind'
- *plef* 'scrape off' as a variant of *pref* 'scrape off', as in *wa-plef i* '2SG-srape.off 3SG' -> 'scrape him off' -> 'conquer him / knock him down'

The contexts depicted by my consultants, in which expressions like the ones given are used, were either situations of playing (football), or allusions to sexual intercourse (in the sense of 'take this girl'). Although the realization of /r/ as [l] instead of [r] brings about some difference in meaning, this meaning difference is more of a pragmatic nature than of a semantic nature. The difference between *pram* and *plam* is clearly of a different nature than the difference between, for example, the difference between *sam* 'hot' and *sar* 'sharp'.

Concluding, it is clear that both /l/ and /t/ have a certain phonemic status within the language, because speakers simply realize the phonemes in loan words as [l] and [t], respectively. The incorporation of /l/ within the phonemic system, however, seems of a more recent nature than that of /t/, because [l] is only found in loan words and in certain pragmatic contexts, whereas [t] is also found in several words that are not recognized as loans.

2.1.2 Vowels

The Biak vowel phonemes are shown in Table 5. They can be short or long. Throughout the thesis, long vowels are spelled with an accent.

Table 5 Biak vowels

	+front, -back	-front, -back	-front, +back
+high, -low	i / í		u / ú
-high, -low	e / é		o / ó
-high, +low		a / á	

High vowels

/i/ [i] High unrounded front vowel.

[ɪ] Near-high unrounded front vowel. This realization is found in unstressed closed syllables, as in the first syllable of *i-m.ki.ker* '3SG-shiver'.

/u/ [u] High rounded back vowel.

Mid vowels

/e/ [e] Mid unrounded front vowel.

/o/ [o] Mid unrounded back vowel.

Low vowel

/a/ [a] Low unrounded central vowel.

The following table illustrates the contrasts between vowels in identical environments.

Table 6 Vowel contrasts in identical environments

<i>/a/-e/-i/-o/</i>	<i>fas</i>	2SG.write	<i>fes</i>	2SG.tie
			<i>fis</i>	how much
			<i>fos</i>	2SG.stretch.out
<i>/u/-o/</i>	<i>i-wur</i>	3SG-wear	<i>i-wor</i>	3SG-dance

Long vowels are realized with higher pitch and are usually phonetically longer than short vowels. The language has several minimal pairs in which long and short vowels can be contrasted, like the following:

Table 7 Minimal pairs illustrating contrast between long and short vowels

<i>mas</i> 'dance'	vs.	<i>más</i> 'clever'
<i>mam</i> 'chew'	vs.	<i>mám</i> 'see'
<i>kor</i> 'count'	vs.	<i>kór</i> 'cut'
<i>kris</i> 'type of tree'	vs.	<i>krís</i> 'roll'
<i>sun</i> 'enter'	vs.	<i>sún</i> 'flood'

All of the words in the right column cause epenthesis of *e* in final position of an intonational phrase, more on which can be found in the following section. A discussion on long vowels can be found in 2.5.1, while 2.5.5 discusses the relation between vowel length and stress.

2.2 Intonational phrase: long vowels, final clusters and epenthesis

The intonational phrase (*I*) can be defined as a unit preceded and followed by a pause. At the end of an intonational phrase, two groups of words have a different realization than in other positions. First, all words ending in CC have an epenthetic [e] in *I*-final position. This group is illustrated in Table 8. Note that the final [e] is stressed:¹⁰

Table 8 Words ending in VCC or VCeC, dependent on position in the intonational phrase (*I*)

	<i>I</i> -final position	not <i>I</i> -final position
<i>ifn</i> '<k.o.tuber>'	[i'fɛn]	[ifn]
<i>bakn</i> 'body'	[ba'kɛn]	[bakn]

The second group consists of words ending in a long vowel (spelled with an accent) plus a consonant. They have a final *e* when uttered in *I*-final position, but end in a consonant when uttered in other positions. Note that stress is on the long vowel, and not on the epenthetic *e*:

Table 9 Words ending in V_{long}C or V_{long}Ce dependent on position in the intonational phrase (*I*)

	<i>I</i> -final position	not <i>I</i> -final position
<i>dokór</i> 'back'	[do'kóre]	[dokór]
<i>swán</i> 'palm wine'	['swáne]	[swán]
<i>syór</i> 'release'	['syóre]	[syór]

That the stressed vowel in these words is long is clear from the fact that its pitch is always higher than that of short vowels in directly neighboring syllables. In this respect the words in Table 9 differ from minimally different words like *swan* 'sea' and *syor* 'low tide', with a short vowel as their nucleus. This is clear from the following examples: where *syor* 'low tide' is less

¹⁰ Throughout this chapter, I will use the term stress as a descriptive term for 'accent at word level'. I will later argue that the language has no lexical stress.

prominent in terms of pitch and length than the following *wer* 'again', this is not true for *syór* 'release oneself', where capitals express prominence in terms of pitch and length.¹¹

- (1) ***I-syor*** *wer* *va.* Realized as [isyorWERva]
 3SG-low.tide again not
 'It is not low tide any more.' [e]
- (2) ***I-syór*** *wer* *va.* Realized as [iSYORwerva]
 3SG-release.oneself again not
 '(S)he will not release (himself/herself) anymore.' [e]

Observation of the data in the two tables above leads to the following questions:

- 1) What is the lexical form of the words? Is [e] found in *I*-final position epenthesized, as I suggested, or is it part of the lexical form and elided in all other positions?
- 2) If [e] is elided, what causes it to be elided for some of the words ending in VCeC or V_{long}Ce, but not in others?
- 3) If /e/ is epenthesized, what is it that motivates the epenthesis, and is it possible to come to a unified account of both phenomena?

In the rest of this section I will argue that the base forms end in VCC / V_{long}C, and that [e] is epenthesized rather than elided. Section 2.2.1 argues for epenthesis in the case of words ending in VCC, while section 2.2.2 does the same for words ending in a long vowel plus a consonant. Finally, section 2.2.3 will give a unified account of both phenomena of epenthesis (question 3), by introducing the constraint that Biak intonational phrases cannot end in a syllable consisting of three morae, thus ruling out both the sequence of a long vowel plus a consonant and the sequence VCC.

2.2.1 Epenthesized e in words ending in a consonantal cluster

This section argues that the alternative realizations given in Table 8 above and repeated here as Table 10, can best be explained by stating that the base form of these words ends in VCC, and that [e] is epenthesized in *I*-final position.

Table 10 Words ending in VCC or VCeC, dependent on position in the intonational phrase (*I*)

	<i>I</i> -final position	not <i>I</i> -final position
<i>ifn</i> '<k.o. tuber>'	[i'fen]	[ifn]
<i>bakn</i> 'body'	[ba'ken]	[bakn]

¹¹ In other contexts, however, the vowels in both words may be equally prominent in terms of pitch and length, as in the following two sentences, which have the same realization:

- a) ***i-*** ***syor*** *va.* Realized as [iSYOR va]
 3SG-low.tide not
 'it's not low tide'
- b) ***i-syór*** *va.* Realized as [iSYOR va]
 3SG-release.oneself not
 'he/she will not release himself/herself'

Consider the realization of the following three types of words: those ending in a short vowel *e* followed by consonant, like *farem* 'send', those ending in a long vowel *e* plus a consonant, like *darés* 'radiation', and those ending in a cluster, like *karm* 'answer'. Their realization in *I*-final and other positions is given in the following table:

Table 11 Realization of words ending in VCC, VCéC, VCeC compared

	<i>I</i> -final position	not <i>I</i> -final position
<i>farem</i> 'send'	[fa'rem]	[farem] ¹²
<i>darés</i> 'radiation'	[da'resé]	[da'rés]
<i>karm</i> 'answer'	[ka'rem]	[karm]

A strong argument for the analysis that the vowel is epenthesized is the existence of words like *farem*, which have a lexical CeC-sequence. In such words, the /e/ is always realized, irrespective of the position in the intonational phrase. It is possible to stipulate that /e/ elides in certain (classes of) words (like *karm* 'answer' in Table 11 above) but not in others (like *farem* 'send'). It is more economical, however, to assume that the language has a lexical *e*, which cannot be elided, and on the other hand has clusters that require epenthesis at intonation boundaries.¹³

Additional evidence for the non-lexical character of [e] comes from the reduplication pattern of the language. As will be further shown in Chapter 7 on reduplication, it is usually the last syllable (or (C) CV(C)(C) sequence) of the root that is taken as the basis for reduplication. This is clear from the following examples, where the reduplicative base has an underscore:

Table 12: reduplication of (part of) the last syllable: base and reduplicated form

<i>émír</i> 'alone'	<i>é~ma~mír</i> 'loneliness' ¹⁴
<i>farkor</i> 'learn'	<i>far~kar~kor</i> 'learning'
<i>fasos</i> 'prepare'	<i>fa~sa~sos</i> 'preparation'

Turning now to VC(e)C-final words, the examples below show that the reduplicative base, having an underscore, is not CeC, but CVCC (where the final C is not copied in the reduplicant).

Table 13 VC(e)C-final words: base and reduplicated form

<i>fukn</i> 'ask'	<i>fak~fukn</i> 'question'
<i>mewr</i> 'refuse'	<i>maw~mewr</i> 'refusal'
<i>marm</i> 'ripe'	<i>ma~marm</i> 'ripeness'
<i>vors</i> 'row'	<i>va~vors</i> 'go for a rowing trip'

¹² As mentioned in 2.5.4, lexical stress is easily overruled by phrasal stress in other than *I*-final position.

¹³ Although I would like to keep to the analysis given above, some remarks are necessary to clarify the situation. First, the number of (what has been analyzed as) CC-final words is much larger than that of CeC-final words. All CC-final words are either nouns or verbs. The number of words ending in VCeC is small. Of all words ending in VCeC, most are polymorphemic, in which the last CeC-is a root. This is true, for example, for the words formed by reduplication of roots containing lexical *e*, like *kakes* 'gift of food' from the root *kes* 'divide'. This is probably also true for *farem* 'send', which contains the (petrified) prefix *fa-* (Cf. section 4.3.1.3), and for the adverb *kaker* 'still', which is a reduplicated form of *ker* 'continually'. Having discussed these polymorphemic words, we are left with one numeral *oser / eser* 'one' and two words with stress on the prefinal syllable: the loan *kéret* 'clan' and the root *dáwen* '<type of fish>'.

¹⁴ The reduplicant may have the form Ca or CaC, cf. section 7.3.

In this respect, the cluster final verbs differ from words ending in CeC or Céc, where it is indeed the final CeC-sequence that is taken as the base for reduplication, as is illustrated by the following examples:

Table 14 VCeC and VCéC-final words: base and reduplicated form

<i>farem</i> 'send'	fa~ ram ~rem 'sending'
<i>darés</i> 'radiation'	da~ ras ~rés 'radiation'

In sum, word-final consonant clusters are broken up by epenthesis of [e] in *I*-final position.

2.2.2 Epenthesized *e* in words ending in long vowel plus consonant

This section argues that the *e* found after words ending in a long vowel plus a consonant is also epenthesized in *I*-final position, rather than elided in other positions. As will be presented below, the Biak language has a set of four verbal pronominal prefixes that lengthen the following verb-initial vowel. When these prefixes combine with verbs of the form VC, then, the result is a verb that ends in a sequence of a long vowel plus a consonant. I have analyzed these prefixes as ending in a floating mora (μ). The mora docks on the first vowel of the verb and makes it bimoraic or long.¹⁵ Interestingly, the prefixation with one of these prefixes leads both to the lengthening of the following vowel and to epenthesis in *I*-final position. The point is illustrated by means of the verb *an* 'eat'. The following table shows the verbal paradigm for the word *an* 'eat', and illustrates how the prefixes of 3PC through 1PL.INC lead to epenthesis in *I*-final position.

Table 15 The verb *an* 'eat' with pronominal prefixes; realization in *I*-final position and other positions

		not <i>I</i> -final position	<i>I</i> -final position
1sg	<i>y-an</i>	[yan]	[yan]
2sg	<i>w-an</i>	[wan]	[wan]
3sg	<i>d-an</i>	[dan]	[dan]
1du excl	<i>nuy-an</i>	[nuyan]	[nuyan]
1du inc	<i>kuy-an</i>	[kuyan]	[kuyan]
2du	<i>muy-an</i>	[muyan]	[muyan]
3du	<i>suy-an</i>	[suyan]	[suyan]
3pc	<i>sk^μ-an</i>	[skán]	['skáne]
1plexcl	<i>nk^μ-an</i>	[nkán]	['nkáne]
1plinc	<i>k^μ-an</i>	[kán]	['káne]
2pl	<i>mk^μ-an</i>	[mkán]	['mkáne]
3pl.an	<i>s-an</i>	[san]	[san]
3pl.inan	<i>n-an</i>	[nan]	[nan]

That the first vowel in the bold words is indeed long, is again clear from the fact that it always has higher pitch (and usually is longer) than neighboring short vowels. In this respect these words differ from the other prefixed forms, as is illustrated by the difference in prominence between *dan* in (3) and *kán* in (4):

¹⁵ That these prefixes cause lengthening of the vowel to which they attach is also clear from the influence they have on the stress pattern of words of the form VCC. Thus, in *I*-final *d-ors* '3Sg-stand' is realized as [do'res], while prefixation of *ors* 'stand' with one of the four prefixes causes stress shift to the penultimate, so that *sk^μ-ors* is realized as ['skóres].

- (3) *D-an* *wer* *va* realized as [dan 'wer va]
 3PL-eat again not
 'He does not eat any more.' [el]
- (4) *K-an* (k^h-an) *wer* *va* realized as ['ka(:)n wer va]
 1PL.INC-eat again not
 'We do not eat any more.' [el]

Given that the *e* is only attested in combination with one of the four prefixes that lengthen the following vowel, it is clear that this *e* is epenthesized as a consequence of the long character of the preceding vowel. Conclusively, the *e* is not lexically present in the verbal root (and elided in certain positions), but epenthesized in *I*-final position. This is not only true for the verbs of the form VC, but also for other words ending in a long vowel plus a consonant.

What exactly motivates the epenthesis of [e]? The following section will answer this question by stating that the epenthesis is motivated by the fact that *I*-final consonants have to be made part of a syllable.

2.2.3 No trimoraic syllable at the end of intonational phrase

The epenthesis found in final position of an intonational phrase can be seen as a means to avoid violation of one of the following prosodic constraints.

constraint 1: no VCC in *I*-final position

constraint 2: no sequence of a long vowel plus a consonant in *I*-final position

Note that we have analyzed the long vowels above as vowels linked to two morae. If we assume that consonants in word-final position also count as morae (with respect to the phenomenon described here), it is possible to generalize over the two constraints as follows:

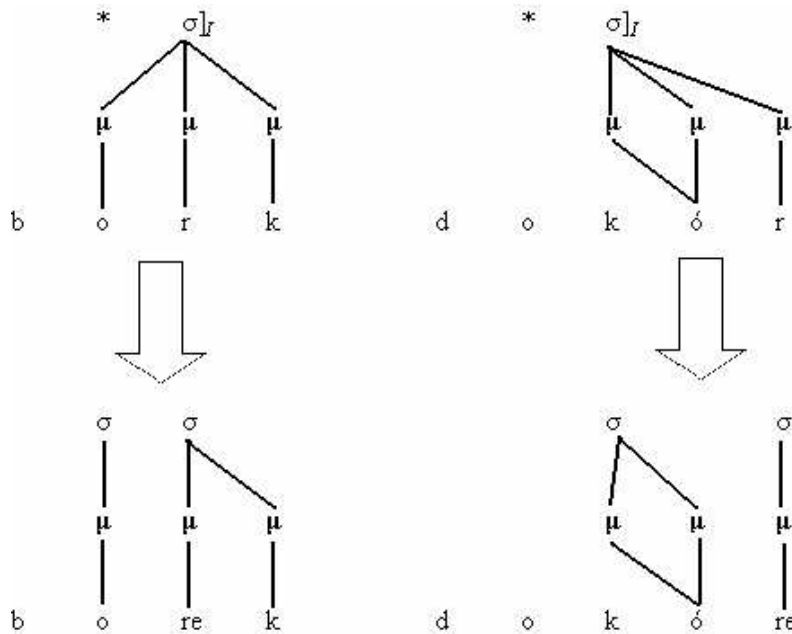
* $\sigma^{[m\mu]_I}$ - No trimoraic syllables at the end of an intonational phrase¹⁶

¹⁶ In order for this constraint to be valid, we should assume that all word-final clusters are part of the coda, also those that do not obey the Sonority Sequencing Principle (SSP, cf. section 2.4.2). A survey of all word-final clusters is given in Table 22, where all clusters right of the bold line do not obey the SSP. An alternative analysis to that given above is the following. First, we assume that syllables are maximally bimoraic (i.e. ending in VC or VV), be it in *I*-final, be it in *I*-medial position. In words ending in VCC or V_{long}C, then, the final C is lexically not part of the syllable-structure, but extrametrical. (Again another option is that syllable structure plays no or only a marginal role in the make-up of words in the lexicon.) When these words are used in other than *I*-final position, the final consonant often remains extrametrical, but can in some contexts also be adjoined to the onset of the following syllable. In *I*-final position, however, the language has the following constraint: no stray (i.e. unsyllabified) consonants in *I*-final position. To avoid this constraint, the language uses epenthesis, which creates the possibility for the final consonant to be syllabified. The cluster-final C becomes part of the preceding syllable, as in *ifn* -> *i.fen* 'k.o.tuber', while C after a long vowel forms the onset of the following syllable, as in *yór* -> *yó.re* 'anchor'. I think that both the analyses given above as the alternative presented here can be defended.

For both analyses, it is important to note that word-final clusters behave the same, irrespective of the question whether the CC-sequence satisfies the SSP or not. They do not only behave the same with respect to epenthesis, but also with respect to the following phenomenon. As described in 2.2.2, long vowels are more prominent than neighboring short vowels. The following sentences show several minimal pairs, which differ in the place of the most prominent syllable. Note that the sequence /rs/ in *ors* 'stand' answers the SSP, while *pr* in *opr* 'jump' does not:

Epenthesis of *e* results in the constraint banning trimoraic syllables from the end of *I* not being violated. The following figure illustrates the epenthesis for both the cluster-final *bork* 'thorn' and the $V_{\text{long}}C$ -final *dokór* 'back:'

Figure 1 Epenthesis of *e* avoids trimoraic syllables in CC-final *bork* 'thorn' and $V_{\text{long}}C$ -final *dokór*



An account for the place of epenthesis - i.e. for the question why *e* breaks up the cluster but follows the final consonant - is outside the scope of this thesis. It is important to note,

(1a)	<i>d-ors</i>	<i>wer</i>	<i>va</i>	(1b)	<i>k^u-ors</i>	<i>wer</i>	<i>va</i>
	[dors'WERva]				['KORSwerva]		
	3SG-stand	again	not		1PL.INC-stand	again	not
	'he does not stand again'				'we do not stand again'		
(2a)	<i>d-opr</i>	<i>wer</i>	<i>va</i>	(2b)	<i>k^u-opr</i>	<i>wer</i>	<i>va</i>
	[doprWERva]				['KOPrwerwa]		
	3SG-jump	again	not		1PL.INC-jum	again	not
	'he does not jump again'				'we do not jump again'		

Analogous to what was shown for *an* 'eat' in 2.2.2 above, it can be observed that the syllable prefixed with *k* makes it impossible for the phrasal stress of the utterance to be on *wer*. We have stated above that a long vowel must be more prominent than a *directly neighboring* syllable with a short vowel as its nucleus. This is the reason why *wer* 'again' cannot bear phrasal stress. In case the long vowel does not directly neighbor *wer*, this *wer* can bear phrasal stress, as in the following example, where the more prominent syllables are capitalized:

<i>d-ado</i>	<i>wer</i>	<i>va</i>	b	<i>d-ankar</i>	<i>wer</i>	<i>va</i>
[DAdoWERva]				[DANgarWERva]		
3SG-go.down	again	not		3SG-deceive	again	not

Given this, we must conclude that *kopr* and *wer* in 2b are neighboring syllables. This means that /r/ in *kopr* does not form a syllable on its own, and behaves similar to the final /s/ in *kors*.

however, that the SoweK / Korido dialect systematically epenthesizes [e] in the position before the final vowel, where most other dialects have epenthesis after the final consonant:¹⁷

Table 16 Realization of words ending in long vowel plus consonant in *I*-final position; the SoweK dialect contrasted to other dialects

	Wardo and other dialects	SoweK (and other dialects?)
<i>bín</i> 'woman'	['bíne]	['bíen]
<i>kám</i> 'all'	['káme]	['káem]
<i>pyár</i> 'float'	['pyáre]	['pyáer]

2.3 Approximants

While in many languages a phonemic difference between the vowels /i/ and /u/ and the consonants /y/ and /w/ needs to be made, it is sometimes possible to assume the existence of more abstract 'archiphonemes'. These 'archiphonemes' generalize over [u] and [w] on the one hand, and [i] and [y] on the other hand. In such an analysis, the realization of the archiphoneme as a vowel or an approximant is the consequence of the phonological environment in which it is used.

This section has two aims. First, it is argued that a phonemic difference between vowels and approximants needs to be made. Second, it presents the distribution of /u/, /w/, /i/ and /y/ in the last position of the Rhyme and in the Coda. In these positions, we find a sort of neutralization between /u/ and /w/, in the sense that the two cannot be contrasted, while the same is true for /i/ and /y/. Although the vowels and the consonants cannot be contrasted, I will show that the phonemes under discussion should be analyzed as the consonant /w/ and the vowel /i/. The arguments for this analysis are given in section 2.3.2. The description here makes use of the signs I and U to refer to 'either /i/ or /y/' and 'either /w/ or /u/', respectively.

2.3.1 Phonemic difference between approximants and vowels

In many languages, syllable structure makes clear whether U / I should be analyzed as an approximant or a vowel. In a language that only has CV-syllables, for example, the phonetic sequence [ia] must be interpreted as /ya/, as [i] must be a consonant, not a vowel. In the Biak language, however, syllable structure does not always help in the decision, as in many cases it allows both an analysis of I/U as vowels and an analysis of I/U as approximants. This is most clear in case we have a sequence of I/U, as in the following examples. Table 17 gives five words and presents them as if I and U are not specified for their status as either a vowel or a

¹⁷ This observation is important because it shows that the dialect is sensitive to the same constraints as the other dialects, but adopts a slightly different avoidance strategy. Like the Wardo dialect, it avoids the sequence of a long vowel plus a consonant in *I*-final position. However, while the Wardo dialect epenthesizes [e] after the final consonant, the SoweK / Korido dialect epenthesizes [e] before the final consonant. The difference between the dialects can be accounted for in Optimality Theoretical terms, by a different ranking of two constraints:

ALIGN-R The right edge of a Grammatical Word coincides with the right edge of a syllable. (Kager 1999:113).

ONSET Syllables must have onsets (Kager 1999: 93).

The Wardo dialect ranks ONSET above ALIGN-R, thus avoiding the formation of Onset-less syllables as in the last syllable of *bí.en*. The Korido / SoweK dialect, on the other hand, has the opposite ranking, avoiding epenthesis at the right edge of the grammatical word, but accepting violation of ONSET.

consonant (approximant). If I and U were unspecified, the sequences of I and U would allow for all of the syllabifications given in the second column. The column 'expected realization' gives the possible set of realizations corresponding to a certain syllabification.

Table 17 Hypothetical realizations of words containing I and U in sequence

	Syllabification						expected realization	attested set	lexical specification
	C	C	V	V	C	C			
SIU		s	i	u			[siu], [siw], ?[syu]		
		s	i		w		[siu], [siw] *[syu]	✓	(<i>siu</i> /) <i>siw</i> 'nine'
	s	y	u				[syu] *[siw], *[siu]		
AMIU	m	y	u				[amyu], *[amiw], *[amiu]	✓	<i>amyu</i> 'rose-apple'
		m	i	u			[amiu], [amiw], [a'mwi]		
		m	i		w		[amiw], [amiu] *[amyu]		
SUI		s	u	i			[sui], [suy] ?[swi]		
		s	u		y		[sui], [suy] *[swi]	✓	(<i>suy</i> /) <i>sui</i> 'sago porridge'
	s	w	i				[swi], *[sui], *[suy]		
NUIR		n	u	i	r		[nuir], [nwir] [nuyr]		
		n	u		y	r	[nuyr], *[nuir] *[nwir]		
	n	w	i		r		[nwir], *[nuir], *[nuyr]	✓	<i>n<w>ir</i> <2SG>call

If neither U nor I were specified for their status as a vowel or a consonant, we would expect all possible realizations (unless there are rules governing the realization). What we do see, however, is that each word only allows for a limited set of realizations, ruling out others. This is shown in the column titled 'attested set'. Thus, for the hypothetical SIU, [siu] and [siw] are possible realizations, while *[syu] is ruled out. The fact that we find only a limited set of possible realization proves that in these words at least one of the two 'archiphonemes' must be specified for its status as a vowel or a consonant. In SIU, for example, specification of I as vowel would be enough to let the right syllabification come out, as well as its corresponding set of possible realizations, but specification of U as a consonant would also work. Whatever choice is made, it is clear that a specification of either of the two needs to be there, which shows that the language makes use of a phonemic difference between approximants (consonants) and vowels.

The last column shows the lexical form of the words, which can be concluded on the basis of the possible realizations, assuming that the language specifies both I and U for their status as vowel or consonant. The phonetic realization is not sufficient to decide upon the status of final U and final I in *siw* and *sui*, respectively. In the next section, I will argue that final U in positions like these should be analyzed as a consonant, while final I should be analyzed as a vowel.

2.3.2 Vocalic character of I and the consonantal character of U in position V_C#

This section discusses the status of U and I in the context V_(C)#. In the position V_(C)#, that is: phonetically following a vowel and possibly followed by a consonant, the difference between vowels and approximants is neutralized, in the sense that we do not find minimal pairs, in which /w/ and /u/ or /y/ and /i/ can be contrasted. This section will show that U in this position is best analyzed as /w/, while I is more like a vowel. This will be made clear by presenting the difference in behavior with respect to several phonological rules sensitive to the difference between vowels and consonants.

Before presenting the arguments in favor of the analysis just mentioned, however, it is necessary first to give the realization of I and U in the position under discussion. Both U and I do not receive main stress, and seem phonetically part of the preceding syllable in that they do not have their own intensity peak (cf. section 2.4.2). Some examples are given here:

wai ['way] 'canoe', *aw* ['aw] '2SG', *inoi* [i'noy] 'knife', *row* [row] 'fathom' *bei* ['bey] 'empty'

Both I and U, then, are realized as off-glides. In the rest of this section it will be argued that, although both I and U are phonetically realized as glides, I should be analyzed as /i/ (and not as /y/), whereas U should be analyzed as /w/ (and not as /u/).

The first phenomenon relevant for the analysis of I and U is that several morphemes have a special allomorph used in the environment V__#. One of these morphemes is the marker of givenness *an* 'GIV' with the allomorph *nan*. *An* is used after consonants, while *nan* is used after words ending in a vowel. The following examples illustrate the pattern, with *rum* ending in a consonant and *kpu* ending in a vowel:

- (5) *rum an=ya* 'house GIV=3SG.SPC'
kpu nan=ya 'grandparent GIV=3SG.SPC'

In the environment under consideration I behaves like a vowel, but U like a consonant, in that I is followed by the n-initial variant of the morpheme, but U is not:

- (6) *wáw an=ya* 'turtle GIV=3SG.SPC' (**waw nanya*)
iko(i) nan=ya 'spear GIV=3SG.SPC' (usually realized as [iko'nanya],
not: *iko(i) anya* [ikoianya])

The use of *an* after *wáw* 'turtle' proves the consonantal character of the final /w/ in *wáw*. For the use of *nan* following *iko(i)* however, the situation is less straightforward. Note that the glide-final noun *iko(i)* is usually realized as *iko* when preceding the marker of givenness *nan* (cf. 2.6.4). It is perfectly possible, then, that the use of *nan* instead of *an* is due to the vocalic character of *o* rather than to the vocalic character of *i*. The use of *nan* following *iko(i)*, then, is insufficient proof of the vocalic character of final *i* in *iko(i)*.

Another relevant phenomenon is that of e-epenthesis. As stated above, the epenthetic *e* breaks up consonantal clusters at the end of an intonation unit. The pattern is illustrated in Table 18.

Table 18 Epenthesis of *e* at end of intonation unit (*I*)

	<i>gloss</i>	<i>realization at end of I</i>
<i>ifn</i>	<k.o. tuber>	i'fen
<i>d-opr</i>	3SG-jump	do'per

In the environment under consideration, U behaves like a consonant in that the cluster is broken up, whereas I behaves like a vowel and does block epenthesis of /e/:

Table 19 Epenthesis of [e] at end of (*I*) for words ending in VwC, but not for words ending in ViC.

	<i>gloss</i>	<i>realization at end of I</i>
<i>i-dawr</i>	3SG-be.left.over	[idawer]
<i>k<y>ain</i>	<3SG>sit	[kyain] *[kyaieɪn]

In conclusion, this section has made clear that we find /i/ and not /y/ in the position V_(C)#, and /w/ rather than /u/. This motivates the choice to write 'i' and 'w' in these positions, thus reflecting that /i/ and /w/ exhibit different behavior with respect to the rules sensitive to the consonant-vowel distinction.

2.4 Phonotactics

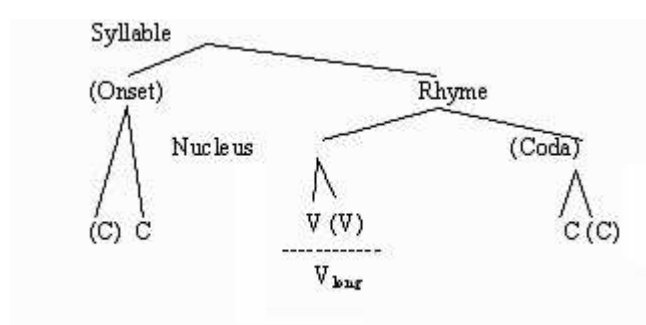
2.4.1 Syllables

The structure of the syllable is as follows:

(C)(C)V(V)(C)(C)¹⁸

Following the traditional division of the syllable into an onset and a rhyme, the structure of the syllable can be represented as in Figure 2:

Figure 2 The structure of the syllable



As both the onset and the coda are optional, a syllable may consist of only a nucleus. As the nucleus may consist of only one vowel, the minimal syllable is simply V, as in the 3SG pronoun *i*. The maximum rhyme is VVC, V_{long}C, or VCC. Rhymes of the form V_{long}CC or VVCC are not attested in the lexicon.¹⁹

Both the onset and the rhyme may be simple or complex. Within a complex rhyme, both the nucleus and the coda again may be either simple or complex. In the remainder of this section, the constituents of the syllable will be dealt with.

¹⁸ An alternative analysis would be that the syllable structure is (C)(C)V(V) or (C)(C)V(C). In this analysis, Biak would not allow for cluster-final syllables, this being the reason for epenthesis in *I*-final position, cf. footnote 16. A seeming advantage of this analysis is the relative straightforward and universally less exceptional account for epenthesis in *I*-final position. The analysis does not account, however, for the many non *I*-final contexts where we do find final word-final consonant cluster realized as part of the coda (as in slowly spoken *d-ark wer* '3SG-bite again', realized as [dark.wer]). In my view, this makes this analysis a little artificial.

¹⁹ The sequence V_{long}CC, however, is found in polymorphemic words when words of the form VCC are prefixed with a vowel-lengthening prefix, as when *ors* 'stand' is prefixed with *k^u*-, leading to *k-órs*. For the vowel-lengthening prefixes compare 2.2.2.

2.4.2 Onset clusters and word-initial clusters

This section discusses consonantal clusters that are found in root-initial and word-initial position. A distinction is made between monomorphemic and polymorphemic clusters. Polymorphemic clusters are divided into clusters formed by derivation and clusters formed by inflection. At the end of this section, we will come back shortly to the question which of these root-initial and word-initial clusters can be analyzed as onset clusters.

First consider the following table, which lists all the attested root-initial clusters and divides them into those that do obey the Sonority Sequencing Principle (Kenstowicz 1994:254) and those that do not, to which we will come back below. The table is followed by a list of words that contain the presented clusters.

Table 20 Sequence of two *root-internal* consonants in root-initial position; the bold line distinguishes those clusters that obey the SSP if part of the onset (at the right) from those that do not

	obstruents							nasal		r	glides	
	b	p	d	k	f	v	s	m	n	r	w	y
obstruents	b									br		
	p			pd			ps		pn	pr		py
	d										dw	dy
	k	kb	kp					km	kn	kr	kw	ky
	f							fm	fn	fr		fy
	v									vr		vy
	s	sb				sf	sv		sm	sn	sr	sw
Nasals	m			mk ²⁰					mn			my
	n			(nk) ²¹								ny
r	r							rm			rw	ry
glides	w											
	y											

Obstruent-initial

- /br/ *brawn* 'gold'
- /pd/ *pdef* 'onwards'
- /ps/ *psara* 'back part of canoe'
- /pn/ *pnór* 'egg'
- /pr/ *praf* 'type of stone'
- /py/ *pyum* 'good' (adverb, verb)
- /dw/ *in dwar* 'fish <type of fish>'
- /dy/ *dyapan* 'taro'
- /kb/ *kbor* 'adolescent'
- /kp/ *kpu* 'ancestor'
- /km/ *kma* 'father'
- /kn/ *knam* 'tree'
- /kr/ *kraf* 'flesh'
- /kw/ *kwar* 'already', 'old' (adv, v)
- /ky/ *kyum* 'sago cake'
- /fm/ *fmei* 'hazy'
- /fn/ *fno* '< child.of.cross.sibling >'

²⁰ Realized as [mg]

²¹ The only monomorphemic word where *nk* is attested is the pronoun *nko* 'IPL.EXC'. This pronoun is in free variation with a longer variant *inko*.

/fy/	<i>fyom</i> 'jar'
/vr/	<i>vramin</i> 'hand'
/vy/	<i>vyak</i> 'Biak'
/sb/	<i>sbawr</i> 'overflow'
/sf/	<i>sfu</i> 'wipe'
/sv/	<i>svadon</i> 'mouth'
/sn/	<i>snon</i> 'male'
/sw/	<i>swán</i> 'palm wine'
/sr/	<i>srai</i> 'coconut'
/sy/	<i>syap</i> 'letter'

Nasal-initial

/mk/	<i>mkun</i> 'little', realized as [mɡun].
/mn/	<i>mnu</i> 'village'
/my/	<i>myós</i> 'island'
/mr/	<i>mrúr</i> 'jungle', realized as [mbrur]
/nk/	<i>nko</i> 1PL.EXC', realized as [ŋgo], cf. footnote 21.
/ny/	<i>nyan</i> 'road', realized as [nyan]

Liquid-or r-initial

/rm/	<i>i-rmomn</i> '3SG-angry'
/rw/	<i>rwa</i> 'edge'

Phonologists in general agree that speech sounds can be scaled in terms of degree of sonority and that relative sonority rises towards the nucleus of a syllable and then falls away towards the right edge, a principle that is often referred to as the Sonority Sequencing Principle (Kenstowicz 1994: 254). Obstruents are considered as the least sonorant segments, followed by nasals, followed by liquids, followed by glides, followed by vowels, which are the most sonorant and form the Nucleus of the syllable. In the Biak language, many clusters do not obey this Principle. Assuming that all clusters in Table 20 above are part of the Onset, the clusters to the left of the bold line do not obey the SSP. Although initial consonantal clusters are a less preferred pattern in both the Non-Austronesian languages of the Bird's Head and the Austronesian languages in general, unusual initial consonantal clusters are also attested in Taba. This language belongs, like Biak, to the Southern Halmahera Western New Guinea subgroup of Austronesian languages (Hajek 1999 and Bowden, Bowden 2001).

Table 21 adds both derivational and inflectional prefixes. The derivational prefixes are in italics, while the inflectional prefixes are separated from the root by a hyphen. Examples are given below the table:

Table 21 Word-initial clusters, with inclusion of derivational and inflectional prefixes; the bold line distinguishes those clusters that obey the SSP if part of the onset from those that do not

	obstruents							nasal		r	glides		
	b	p	d	k	f	v	s	m	n	r	w	y	
obstruents	b									br		b-y-	
	p			pd			ps		pn	pr		py	
	d										dw	dy	
	k	kb	kp	<i>kd</i>		<i>kf</i>	<i>kv</i>	<i>ks</i>	km	kn	kr	kw	ky
	f								fm	fn	fr		fy
	v										vr		vy
	s	sb	s-p		s-k	sf	sv	s-s	sm	sn	sr	sw	sy
Nasals	m			mk ²²			<i>ms</i>		mn	<i>mr</i> ²³		my	
	n	n-b	n-p		n-k	n-f	n-v ²⁴	n-s	n-m	n-n	n-r ²⁵	n-w-	ny
r	r	<i>rb</i>							rm			rw	ry
glides	w												
	y												

The clusters in italics are those that are formed by prefixation with one of the following petrified derivational prefixes: *k-*, *m-* and *r-*. In the present-day language, the prefixes are fossilized and not productive any more. The first two prefixes are related to Proto Austronesian **ka* and **ma*, respectively. The origin of the prefix *r-* is not clear. For a discussion on the form and function of these prefixes, see section 4.3.

Root + (petrified) derivational prefixes

kpéf 'burst'

kvás 'fall apart'

kpár 'tossed aside'

mkák 'afraid', realized as [mgák]

msór 'angry'

mrús 'sink', realized as [mbrús]

rbór 'satisfied'

The clusters in bold writing are the result of prefixation with one of the inflectional affixes *s-* '3PL.AN', *n-* '3PL.INAN', <*w*> '2SG' or <*y*> '3SG'. They are found in combination with certain CV-initial stems, as is further discussed in section 4.1.

Root + inflectional prefix / infix

s-pon '3PL.AN-first'

s-káf '3PL.AN-hang'

s-suni '3PL.AN-enter'

n-babo '3PL.INAN-new', realized as [nbabo]

n-pon '3PL.INAN-first', realized as [npon]

n-káf '3PL.INAN-hang', realized as [ŋgáf]

n-fo '3PL.INAN-full', realized as [nfo]

n-vark '3PL.INAN-stay', realized as [nbark] (cf. 2.6.2.2)

n-so '3PL.INAN-throw', realized as [nso]

n-mun '3PL.INAN-hit', realized as [nmun]

²² Realized as [mg]

²³ Realized as [mbr]

²⁴ Realized as [nb],

²⁵ Realized as [ndr]

n-na '3PL.INAN-have', realized as [nna]
n-ra '3PL.INAN-go', realized as [ndra] (cf.2.6.2.1)
n<w>a <2SG>have, realized as [nwa]
b<y>abo <3SG>new

The tables above also illustrate how a sequence of two bilabials is avoided. Two types of geminates are attested in the Onset: *ss* and *nn*. Both sequences are not found in monomorphemic words, but are the result of verbal prefixation.

Finally, one root has been attested that starts with a sequence of three consonants: *fnder* 'forget'. It is used in alternation with *farander* 'forget', without any difference in meaning.

This section, then, has shown that the language allows an extensive set of root-initial and word-initial biconsonantal clusters, many of which are uncommon sequences in terms of the SSP.

To close, some remarks need to be made about the question whether the described root-initial and word-initial should be considered as onset clusters. Phonetically, it is clear that those clusters that obey the SSP form a syllable-initial cluster when uttered in isolation. For these clusters, it can safely be assumed that they are phonologically part of the onset. Now consider the sequences not obeying the SSP. For some of them, the cluster must phonetically be part of two syllables. This is true for clusters in which an initial /r/ or an initial nasal is (phonetically) followed by a stop. In these cases, when the words are uttered in isolation, the initial /r/ or nasal form a syllable on their own. Whereas /n/ and /r/ survive as 'phonetic syllables' at the surface, there is no reason to assume that the language structurally allows for syllables consisting of a nasal or *r* only.²⁶ As will be seen in Chapter 7 on reduplication, clusters obeying the SSP and those not obeying the SSP behave alike with respect to the phonological copying process in reduplication. Phonologically, then, there is no reason to make a difference between different types of root-initial clusters; all root-initial clusters can be considered onset clusters.

2.4.3 Coda clusters and word-final clusters

This section discusses consonantal clusters that are found in word-final position. In context, the second consonant may form the onset of the following syllable, as in *d-amk i* 3SG-grasp 3SG, where *k* may form the onset of the syllable (ki). As described in 2.2.1, in prepausal position all of these clusters have an epenthetic *e* that breaks up the cluster. The following table lists all consonantal clusters that are attested in word-final position.

²⁶ If we stated that the language phonemically has syllables containing of a nasal only, nothing would be won. It does not account for the remarkable set of initial clusters, because we are still left with many non-nasal initial clusters that ask for an explanation. Second, in the analysis of final clusters, it is clear that nasal-final and /r/-final clusters behave exactly the same as other clusters. Just like other clusters, they are broken up by epenthesis, as discussed in 2.2.1 and 2.2.3. If final nasals and final /r/ phonemically formed a syllable on their own, there would be no explanation for the epenthesis of [e].

Table 22 Sequences of consonants in root-final position (all broken up by [e] in *I*-final position); the bold line divides clusters that obey the SSP if part of the coda from those that do not

	stops				fricatives			nasals		R	glides	
	b	p	d	k	f	v	s	m	n	r	w	y
stops	b											
	p				pk		ps		pn	pr		
	d											
	k					kf	kv	-	km	kn	kr	
fricatives	f				fk		-		fn	fr		
	v				vk		vs	-	vn	vr		
	s		-		-	sf	-	-	sm	sn	sr	
nasals	m		-	-	mk	-	-	ms	-	mn	-	
	n				nk	nf	-	ns	nm			
R	r		rp		rk	rf	rv	rs	rm	rn		
glides	w				wk			ws	-	wn	wr	
	y											

The consonant pairs attested in root-final position are illustrated in the list below. They are attested as such, i.e. without epenthesis of *e*, in other positions than the end of an intonation unit.

Obstruent-final

/pk/ *i-srepk* '3SG-short'

Other dialects have *i-yokf*

/fk/ *i-yofk* '3SG-hide'

/vk/ *i-fnovk* '3SG-help'

/mk/ *d-amk* '3SG-grasp'

/nk/ *i-pnunk* '3SG-cold'

/rk/ *v<y>ark* '<3SG>lie'

/wk/ *i-msawk* '3SG-tear'

/rp/ *wa-sorp* '2SG-taste'

Variant of *k-y-efk*

/kf/ *k<y>ekf* '3SG-throw'

/sf/ *s<y>osf* '<3SG>-cover'

/nf/ *d-enf* '3SG-sleep'

/rf/ *i-kmorf* '3SG-flat'

/kv/ *ekv* '<k.o. bamboo'

/rv/ *wekurv* 'heel'

/ps/ *p<y>ups* '<3SG>last'

/vs/ *k<y>ovs* '<3SG>buy'

/ms/ *i-doms* '3SG-perspire'

/ns/ *k<y>ans* '<3SG>weep'

/rs/ *d-ors* '3SG-stand'

/ws/ *i-frows* '3SG-deceive'

Nasal-final

/pn/ *i-swar-epn* '3SG-remember-push.tight'

/km/ *i-pokm* '3SG-able'

/kn/ *i-fukn* '3SG-ask'

/sm/ *k<y>ain-pyesm* '<3SG>sit-sit.with.bottom.on.floor'

/sn/ *i-marisn* '3SG-happy'

/vn/ *s<y>evn* '<3SG>open'

/fn/ *i-kofn* '3SG-say'

/nm/ *d-inm* '3SG-drink'
 /rm/ *k<y>arm* '<3SG>answer'
 /rn/ *i-dwarn* '3SG-awake'
 /mn/ *i-rmomn* '3SG-angry'
 /wn/ *d-áyawn* '3SG-row.fast.with.small.canoe'

r-final

/pr/ *d-opr* '3SG-jump'
 /kr/ *i-mkikr* '3SG-shiver'
 /fr/ *s<y>ofr* '<3SG>gather'
 /sr/ *p<y>esr* '<3SG>defecate'
 /vr/ *k<y>avr* '<3SG>return'
 /wr/ *r<y>owr* '<3SG>hear'

Note that neither /b/ nor /d/ is attested in root-final position, which is consistent with the rule that they are never attested in the coda. Sequences of two bilabial consonants are not found.

If we assumed that both consonants are part of the coda, the language would allow a remarkable amount of deviations from the Sonority Sequencing Principle. In 2.2.3 above I assumed that all root-final clusters are indeed part of the coda, as this allowed me to generalize over VCC-final and V_{long}C-final words as being trimoraic. Another analysis would be to state that syllable structure only plays an indirect role in the make-up of words in the Biak lexicon, as syllabification takes place on the surface, as is suggested in footnote 16 and 18 above. Irrespective of the question whether both root-final consonants are part of the coda, the large number of root-final consonantal clusters remains remarkable.

2.4.4 Nucleus and root-internal vowel sequences

Apart from the sequence *Vi* described in section 2.3.2 on glides above, vowel sequences are extremely rare. The only other vowel sequences attested are *ae* and *ea*, the latter only as part of a greeting (*tavéa / tabéa*), in which it is not uncommon to find special phonotactics. The sequence *ae* is attested in word final position and in the environment *_C#*. In the corpus, the following words have *ae* in final position: *koryae* 'mock', *sae* 'go out', *yae* 'REC'. All of these have main stress on *á* in isolation, while the last word can have stress on the vowel *e*, when uttered in context, as in the sentence *si-pram yae-si* '3PL.AN-hit REC-3PL.AN' -> 'they hit each other', realized as [sipramya'esi]. Stressed *e* is also found in the noun *vae* 'poor,' which always combines with a following pronoun, as in *vae-mko* 'poor-you', realized as [va'emgo].

The following words have *ae* in the environment *_C#*: *naek* 'parallel sibling', *saer* 'bowl'. For these words, main stress can be either on *a*, or on *e*, depending on the phonotactic context.

Both /*Vi*/ and the vowel sequences described here differ from single short vowels on the one hand, and long vowels on the other hand. They differ from short vowels, in that they are realized with longer duration in *I*-final position. Thus, the sequence *ui* in *karui* 'stone' has longer duration than single *u* in *fadu* 'middle'. On the other hand, long vowels lead to epenthesis in the environment *_C], while VV does not: in *I*-final position *kón* 'sit' is realized as [kóne], while the synonym *kain* 'sit' is realized as [kain]. While long vowels have prominent pitch in context, this is not true for VV-sequences, as is clear from the difference between the realization of *ya-kain wer va* '1SG-sit again not' and *ya-kón wer va* '1SG-sit again not'. In the former utterance, the highest pitch must be on *wer*, while in the latter it must be on *kón*.*

Sequences of root-internal vowels can be realized as part of one and the same syllable, or as part of different syllables. Their realization is dependent on several factors, not all of which are clear. While the (realization of) glides has been discussed in 2.2.3 above, the rest of this section discusses the realization of other root-internal vowel sequences.

2.5 Floating mora, long vowels and the absence of lexical stress

This section argues that Biak words are not lexically specified for stress, but rather that stress is a consequence of the interaction between vowel length and a rhythmic stress assignment. It should be noted from the outset that the proposals in this section should be seen as an initial attempt to describe the data and as a hypothesis to be tested in further research. The section opens with a discussion on long vowels in 2.5.1, while 2.5.2 presents the phenomenon of words starting with a floating mora. Readers who are only interested in a survey of attested stress patterns and do not want to be bothered with floating morae and long vowels are advised to directly turn to section 2.5.4.

2.5.1 Long vowels in word-final and other positions

Section 2.2.2 above discussed words ending in a long vowel followed by a consonant. On the one hand it was shown that these words all have epenthesis of *e* in *I*-final position, on the other hand it was shown that the vowels in this position are indeed 'long', because in certain contexts they are more prominent than other syllables in the same structural position. The following table (given above as Table 7) gives a list of minimal pairs of words ending in a vowel plus a consonant, where for each pair the first word ends in a short vowel plus a consonant, and the second in a long vowel plus a consonant:

Table 23 Minimal pairs illustrating contrast between long and short vowels in the environment C_C#

<i>mas</i> 'dance'	vs.	<i>más</i> 'clever'
<i>mam</i> 'chew'	vs.	<i>mám</i> 'see'
<i>kor</i> 'count'	vs.	<i>kór</i> 'cut'
<i>kris</i> 'type of tree'	vs.	<i>krís</i> 'roll'
<i>sun</i> 'enter'	vs.	<i>sún</i> 'flood'

These words then, behave differently in two ways. First, the words on the right get epenthesis of *e* in *I*-final position. Second, in certain phonological contexts the long vowels are more prominent than the short vowels in terms of both pitch and length. An example of a context illustrating the difference is the following (capitals indicate the main accent of the utterance):

(7)	<i>Ya-kor</i>	<i>wer</i>	<i>va.</i>	<i>Ya-kór</i>	<i>wer</i>	<i>va.</i>
	[yakorWER va]			[yaKORwer va]		
	1SG-count	again	not	1SG-cut	again	not
	'I do not count any more.' [eI]			'I do not cut any more.' [eI]		

In *I*-final position, stress is on the long vowel, and not on the epenthetic *e*, so that *ya-máme* '1SG-see' is realized as [ya'máme] and not as *[yama'me].

Although the words in the examples above are all monosyllabic, the same contrast can be made for polysyllabic words like *kapar* 'give birth to', ending in a syllable containing a short vowel or *saryár* 'late', ending in a syllable containing a long vowel. The former does not cause epenthesis in *I*-final position, while the latter does. I expect that the final *a* of *saryár* needs to be prominent in every context, while this is not true for the final *a* of *kapar*, but this remains

to be tested. For several polysyllabic words ending in an open stressed vowel, however, it is clear that the vowel is short, i.e. it need not be prominent in the intonational phrase. This is clear from the following example, where we find the word *kaku* [ka'ku] 'true'. Although this word has final stress in isolation, it is overruled by the phrasal accent on *wer* when uttered in the following context:

- (8) *Kyaku wer va.*
 [k<y>aku WER va]
 <3SG>true again not
 'It is not true anymore.'

In sum, long vowels can be contrasted with short vowels in the context *_C#*. The question, however, is whether a similar contrast between short and long vowels can also be made in other positions. In the rest of this section I will argue that the contrast can also be made for vowels in the context *_#*.

It was only in the course of my research that I discovered the systematic difference between words ending in a long vowel + consonant and those ending in a short vowel + consonant. While for the great majority of words ending in *VC#*, the quality of the final vowel has been checked, this has not been done systematically for words ending in *V#*. Yet, I do have a few examples of final open syllables that are more prominent than other open syllables in a similar position in the intonational phrase. First, the vowel in the verb *ró* 'disappear' is long given the realization of *yaró wer va* '1SG-disappear again not'. This sentence is realized as [yaROwerva], and not as [yaroWERva], which would be expected if the vowel in *ró* were short (cf. *i-fo wer va*, '3SG-full again not' realized as [ifoWERva]). Second, the inalienable root *ná* seems to be long and attracts stress in that it is stressed in the compounds of which it is part. While compounds usually have stress on the second constituent (cf. section 3.3.2.1), here stress is on *ná*, as in *ná-kor* 'tooth' and *ná-fen* 'back-tooth'. Finally, while some words of the form *CVCV* behave like *kaku* in (8) above, others, like *kakí* 'long' seem to end in a long vowel, as the stress on the final vowel *í* cannot be overruled by phrasal accent. In the absence of further systematic data, I would say that there is a difference between long and short vowels in these cases, but further research is needed.

Although the difference between short and long vowels can only be proven to exist in word-final position, in section 2.5.4 I will hypothesize that long vowels are also attested in other positions. This assumption will be used to account for the attested patterns of lexical stress. Before we come to the survey of the attested root types and stress patterns, however, the following section first deals with a subtype of verbs, which cause the prefix with which they combine to be stressed.

2.5.2 Verbs with initial stressed *á* or initial floating mora

This section discusses vowel-initial verbs other than those of the form *VC* (discussed in 2.2.2) and those of the form *VCC* (touched upon in 2.2.2, footnote 15). The great majority of these verbs have *a* as the initial vowel. Of all the attested vowel-initial verbs under discussion, none are *u*-initial, none are *i*-initial, two are *e*-initial (*érer* 'alone' and *émír* 'self'), while one is *o*-initial *ókuv* 'fart'. All other verbs under discussion have an initial *a*. Of all the *a*-initial verbs under discussion, the great majority if not all have stress on the initial vowel.²⁷ Most of these

²⁷ Reduplicated verbs, like *an~an* 'RED~eat' or *ar~ors* 'RED~stand' are excluded from the discussion.

verbs are in free variation with a variant that lacks the initial *a* but at the same time causes the verbal prefix with which it combines to be stressed.²⁸ Stress on a verbal prefix is remarkable, given the fact that it is usually not stressed. Compare the following examples, where *fo* in (9) is a normal C-initial verb, while *do* is one of the verbs under discussion

(9) i-fo [i'fo]
3SG-full
'It is full.' [el]

(10) i-do [i'do]
3SG-descend
'He descends.' [el]

Table 24 gives one of these verbs, and shows the inflection of both the *a*-initial variant and the consonant-initial variant. The shading indicates where the inflected *a*-initial variant and the other variant have a different realization. I will come back to the μ -sign below.

Table 24 Stressed-*a*-initial verbs alternating with consonant-initial verbs

	<i>ádo</i> 'descend'	$^{\mu}do$ 'descend'
1sg	<i>y-ádo</i> [y'ádo]	<i>ya-$^{\mu}do$</i> [y'ádo]
2sg	<i>w-ádo</i> [w'ádo]	<i>wa-$^{\mu}do$</i> [w'ádo]
3sg	<i>d-ádo</i> [d'ádo]	<i>i-$^{\mu}do$</i> [i'do]
1du.excl.	<i>nuy-ádo</i> [nu'yádo]	<i>nu-$^{\mu}do$</i> [n'údo]
1du.in	<i>kuy-ádo</i> [ku'yádo]	<i>ku-$^{\mu}do$</i> [k'údo]
2du	<i>muy-ádo</i> [mu'yádo]	<i>mu-$^{\mu}do$</i> [m'údo]
3du	<i>suy-ádo</i> [su'yádo]	<i>su-$^{\mu}do$</i> [s'údo]
3PC	<i>sk$^{\mu}$-ádo</i> [skádo]	<i>sko-$^{\mu}do$</i> [skódo]
1pl.excl.	<i>(i)nk$^{\mu}$-ádo</i> [(i)n'gádo]	<i>(i)nko-$^{\mu}do$</i> [(i)n'gódo]
1pl.inc	<i>k$^{\mu}$-ádo</i> [kádo]	<i>ko-$^{\mu}do$</i> [kódo]
2pl	<i>'mk$^{\mu}$-ádo</i> ['mgádo]	<i>mko-$^{\mu}do$</i> ['mgódo]
3pl.an	<i>s-ádo</i> [sádo]	<i>si-$^{\mu}do$</i> [sido]
3pl.inan	<i>n-ádo</i> [nádo]	<i>na-$^{\mu}do$</i> [nádo]

In the table above, the verb *ádo* starts with a long vowel *á*. As expected, it combines with the prefixes that are used in combination with vowel-initial roots. I have analyzed its allomorph as starting with a floating mora. It combines with members of the set of vowel-final prefixes that are normally used in combination with (certain) consonant-initial stems. When a vowel-final prefix combines with a μ -initial root, the mora that is part of the root docks on the vowel of the prefix, causing this vowel to be bimoraic or long, and therefore stressed.²⁹

Summarizing, the language has a group of verbs in which an initial bimoraic *á* alternates with an initial floating mora. When prefixed, the vowel of the prefix is lengthened and therefore stressed.

²⁸ To be more precise: 41 verbs with initial *a* were attested. Of these, only 5 did not allow for alternation with the variant causing the prefix to be stressed. In a later version of this book I hope to add a word list. Here I restrict myself to the presentation a number of *a*-initial verbs that allow for alternation. As can be seen, initial stress is not dependent on the quality of the following syllable: *ábak* 'pull out', *ámurm* 'rinse the mouth', *árpi* 'fall', *ávyovr* 'straight'.

²⁹ In case the prefix also ends in a floating mora (cf. 2.2.2), we get a sequence of three morae, as in *k $^{\mu}$ -ádo*. A sequence of three morae is realized similar to a sequence of two morae, in the sense that no difference could be observed between the realization of *á* in a word like *d-ádo* and the realization of *á* in a word like *k $^{\mu}$ ádo*.

2.5.3 The physical realization of stress

Stress is realized by a combination of length, pitch and loudness. 7 bisyllabic words with final stress, and 6 with prefinal stress were analyzed in terms of syllable length, pitch and loudness. The following two tables give the data, where Table 25 gives the patterns for words with final stress, and Table 26 the data for words with prefinal stress. The words were uttered in isolation, except *kaku* (2) and *nom-pnir*, which both formed the end of an intonational phrase. Each row represents one utterance by one consultant.³⁰

Table 25 Prefinal (PF) and final (F) syllables of words with final stress, analyzed in terms of length, pitch and loudness

	Length PF	Length F	Pitch PF	Pitch F	Intens PF	Intens. F
<i>avris</i> 'grass'	0,12s	0,51s	141Hz	150Hz	70Db	78dB
<i>babo</i> 'new'	0,24s	0,52s	100Hz	114Hz	77dB	82dB
<i>kaku</i> (2) 'real'	0,12s	0,37s	92Hz	107Hz	92dB	107dB
<i>mani</i> 'oil'	0,18s	0,35s	88Hz	110Hz	88dB	110dB
<i>fadi</i> 'row fast'	0,22s	0,37s	91Hz	106Hz	91dB	106dB
<i>kapu</i> 'excrement'	0,13s	0,42s	93Hz	117Hz	72dB	77dB

Table 26 Prefinal (PF) and final (F) syllables of words with prefinal stress, analyzed in terms of length, pitch and loudness

	Length PF	Length F	Pitch PF	Pitch F	Intens. PF	Intens. F
<i>i-sápi</i> (1) '3SG-fall'	0.39	0.21	144Hz	122Hz	62dB	60dB
<i>réfo</i> 'Bible'	0.30	0.28	115Hz	90Hz	81dB	69dB
<i>pípi</i> 'money'	0.22	0.33	121Hz	97Hz	121dB	97dB
<i>d-ádo</i> '3SG-descend'	0.27	0.22	122Hz	103Hz	81dB	78dB
<i>d-ánan</i> '3SG-wobble'	0.23	0.27	102Hz	93Hz	77dB	69dB
<i>d-ásas</i> '3SG-shake'	0.23	0.3-0.4	101Hz	94Hz	78dB	72dB
<i>n-ómpnir</i> '3PL.INAN-round'	0.36	0.3-0.6	170Hz	156Hz	75dB	76dB

From the tables it appears that pitch and length are the main indicators of stress. In a word with prefinal stress, the prefinal syllable is definitely longer than a non-stressed syllable in the same position (although it is not always longer than the final syllable of the same word, especially if this syllable ends in a continuant consonant).³¹ In addition, it has a higher pitch and is usually also louder than the following syllable. In a word with final stress, the final syllable has higher pitch than the prefinal and is usually also louder.

2.5.4 Overview of attested root types and stress patterns

Lists of all the attested root types are given in Table 27 through Table 29 below. The data are based on a word list of 1262 lexical items, largely based on the corpus of spontaneous speech.³² One of the complications in this list is that a distinction between long stressed

³⁰ I realize very well that these data are far from sufficient to provide significant data on the realization of stress. They are not more than an initial attempt to come to a characterization.

³¹ This, however, is not strange, as in many languages length serves to close off a phonological phrase (Hayes 1995:7). The relative long length of the final syllable probably is due to its final position in the intonational phrase, and is relatively independent from stress.

³² The list is based on all nouns, verbs and numerals that were attested in the corpus. It does not include verbal particles, pronouns, adverbs, conjunctions, reduplicated forms, proper names and affixes. In calculating the percentages given in the leftmost column, homophones were counted only once. Roots that are evidently compounds were not taken into consideration. Although synchronically the list consists of monomorphemic roots, it is clear that some roots contain petrified prefixes, to which we will come back later.

vowels and short stressed vowels can only be made for vowels in the position *_C#*; long stressed vowels cause epenthesis, while short stressed vowels do not. In other positions, it is not (yet) possible to distinguish between long and short stressed syllables on phonetic grounds. For this and for expository reasons, in the column titled 'root type' vowel length is noted only in the just described position. (Note, however, that the use of a diacritic sign on a vowel in the following tables betrays in which cases I consider a vowel to be long). Table 27 represents 61% of the items in the list in giving words that contain maximally one sequence of vowels. Note that both the root forms in bold and the shaded forms are realized as bisyllabic words in isolation, while the other forms are realized as monosyllabic forms.

Table 27 Roots containing maximally **one** sequence of vowels; roots in bold have an epenthetic *e* when uttered in *I*-final position, shaded words contain a sequence of two vowels

<i>Root form</i>	<i>Stress in isolation</i>	<i>example</i>
(V)		<i>i</i> '3SG'
V_{long}C	<i>on long vowel</i>	<i>ór</i> 'call', <i>ún</i> 'take'
VC		<i>up</i> 'grandparent', <i>an</i> 'eat'
VV	<i>on prefinal vowel</i>	<i>ai</i> 'wood'
(C)CV		<i>fo</i> 'full', <i>so</i> 'follow', <i>ki</i> 'float', <i>pro</i> 'deaf' ³³
CV_{long}		<i>ró</i> 'disappear' ³⁴
(C)CVV	<i>on prefinal vowel</i>	<i>sáe</i> 'go.out', <i>fnai</i> 'cause'
(C)(C)VC		<i>wor</i> 'dance', <i>kraf</i> 'flesh'
(C)(C)V_{long}C	<i>on long vowel</i>	<i>ór</i> 'call', <i>ún</i> 'take', <i>kón</i> 'sit', <i>krís</i> 'roll'
(C)(C)VCC	<i>on epenthetic e</i>	<i>ors</i> 'stand', <i>yofk</i> 'hide', <i>srepk</i> , 'short'
CCCVC		<i>fnder</i> 'forget' (variant of <i>farander</i>)
CVVC	<i>see section 2.4.4</i>	<i>kain</i> 'sit', <i>naek</i> 'parallel sibling'

Table 28 gives words with maximally two sequences of vowels separated by one or more consonants. The list represents 428 out of the 1262 items, which is 34% of all roots.

³³ As stated above, it is perfectly possible that some of these verbs also contain a long vowel.

³⁴ As stated above, more research is necessary on the existence of long vowels in words of the form CV_{?long}.

Table 28 Words containing maximally **two** sequences of vowels separated by one or more consonants; roots in bold have an epenthetic *e* when uttered in *I*-final position, shaded words contain a sequence of two vowels

Root form	Stress in isolation	example
VCV	prefinal	<i>ára~^μra</i> 'bait' ³⁵
	final	not attested
VCVV	<i>on prefinal vowel</i>	<i>inoi</i> 'knife' <i>adui</i> 'shield'
VCCVV	<i>on prefinal vowel</i>	<i>avrui</i> 'bean'
	<i>initial vowel</i>	<i>árvai</i> 'pass'
VCCCVV	<i>on prefinal vowel</i>	<i>ankrai</i> 'orange'
VCVCC	<i>on initial vowel</i>	<i>ámurm~^μmurm</i> 'rinse.the.mouth'
VCVC	prefinal	<i>árus~^μrus</i> 'burnt', <i>ábak</i> 'pull out', <i>átam</i> 'roof' (loan?)
	final	<i>adaf</i> 'sharp little wooden stick'
VCVlongC	<i>difficult to establish</i>	<i>áwós~^μwós</i> 'talk'
(C)CVI CV	prefinal	<i>réfo</i> 'bible', <i>psára</i> 'back part of canoe'
	final:CVCV	<i>sabu</i> 'descend'
CVCVV	<i>on prefinal vowel</i>	<i>karui</i> 'stone'
CVCCVV	<i>on prefinal vowel</i>	<i>kavrai</i> 'rope'
(C)(C)V CVC	prefinal	<i>kéret</i> 'clan'
	final	<i>anir</i> 'ant', <i>fasos</i> 'ready'
(C)(C)V CV _{long} C	prefinal	<i>áwós</i> 'talk' (see below)
	final	<i>dokór</i> 'back', <i>rasár</i> 'right', <i>saryár</i> 'late'
(C)(C)VC CVC	prefinal	<i>rándak</i> 'begin'
	final	<i>marvak</i> 'heavy' <i>kandor</i> 'startle'
(C)VC C(C)V	prefinal	<i>ránsyo</i> 'sweet potato'
	final	not attested
(C)VCVCC	<i>on epenthetic e</i>	<i>marisn</i> 'enjoy'

Table 29, finally, gives all other forms. The list contained 61 trisyllabic items, 4 items with four syllables, which were all loans, and one word consisting of 5 syllables, which is probably polymorphemic.

Table 29 Roots with more than two syllables

Three syllables	CVCVCV	antepenultimate	<i>fárrari</i> 'imitate'
		prefinal	<i>manora</i> 'fish spear', <i>kawasa</i> 'inhabitants'
		final	<i>kavasá</i>
	CVCVCVC	prefinal	<i>sinapan</i> 'gun' (loan from Dutch 'snaphaan')
final		<i>kamayów</i> 'smoke'	
Four syllables (4 items, loans)	CVCVCVCV	prefinal	<i>karapésa</i> 'chair' (loan from Portuguese)
		final	not attested
Five syllables (polymorphemic?)	CVCVCCVCVC V	second from left	<i>sunankarare</i> 'tickle'

2.5.5 No lexical stress but phonemic vowel length

Consider the following (near-)minimal pairs:

³⁵ All verbs of this form alternate with a μ -initial form. No nouns of this form were attested.

Table 30 Near-minimal pairs exhibiting different stress patterns

<i>kawasa</i> [ka'wasa] 'inhabitants'	vs	<i>kavasá</i> [kava'sa] 'type of canoe'
<i>sápi</i> ['sapi] 'fall'	vs	<i>kaki</i> [ka'ki] 'long'
<i>kápok</i> ['kapok] 'carry on shoulder'	vs	<i>kanow</i> [ka'now] 'lift'
<i>d-an~an</i> [da'nán] '3SG-RED~eat'	vs	<i>d-ánan</i> ['danán] '3SG-wobble'

At first sight, these examples seem proof of the phonemic character of stress, in that near-minimal pairs have different stress patterns. I think, however, that the system of 'stress assignment' in Biak can be best accounted for on the basis of the assumption that only vowel length is lexically specified (i.e. phonemic) and is realized as what sounds as stress. Biak words, then, are not lexically specified for stress. Rather, a number of words -both monosyllabic and polysyllabic- contain one or more long vowels, which are not only longer on the surface than short vowels, but usually also have higher pitch than short vowels (cf. Table 25 and Table 26).

In words that lack long vowels, the language seems to strive for an iambic pattern of rhythmic stress, at least when the words are uttered in isolation. This rhythmic pattern, however, is not a sign of lexical stress, but of an accent that is assigned postlexically to a domain that is larger than that of the word, and possibly is as large as the intonational phrase. I will refer to this accent as 'phrasal accent'. Some examples of the interaction between phrasal accent and vowel length were given with the examples (1), (2), (3) and (4), examples (1a) and (2a) in footnote 16, and with (7) and (8). The precise principles governing the assignment of phrasal accent assignment are still poorly understood and await further investigation. When words are uttered in isolation, however, the phrasal domain coincides with the entire word. In these small phrases, most realizations can be accounted for by an iambic pattern, to which we will come back at the end of this section.

Before I come to a summary, I will first come up with some tendencies that can be discovered when observing the data, thus allowing the reader to agree or disagree with the proposal given above and come with new ideas.³⁶ I do not claim to be able to account for all of the data, but would state that the proposal given above can account for the great majority of forms.

Observing the realization of words when uttered in isolation, the following can be observed:

- Generalizing over all the words in Table 28, about two third of them have 'stress' on the final syllable.³⁷ This is also true for all cluster-final words given in Table 27; when uttered in isolation, stress is on the epenthetic *e*.
- Most bisyllabic words have the form CVCVC.
- All words ending in VV have stress on the prefinal V (which phonetically forms one syllable with the vowel that follows.)
- The great majority (about 80%) of all 3-syllabic words have stress on the penultimate, like *manora* 'fish.spear', *kandera* 'suffering', or *sinapan* 'gun'.³⁸
- Virtually all vowel-initial polysyllabic verbs have stress on the first syllable.

³⁶ In a later version of this book, I will add a word list, which will allow the reader to check the observed tendencies.

³⁷ In a list of 1262 words, 428 words were disyllabic. Of these disyllabic words, 293 items had stress on the ultimate, which is about 68%.

³⁸ The percentage is based on a word list of 1262 words, containing 61 words consisting of three syllables. Of these words, 48 words had stress on the penultimate, which is about 80%.

- The language has a prefix that 'attracts stress', the prefix *ák* 'join'. In addition, a set of four verbal prefixes that combine with vowel-initial verbs cause the initial vowel of the verb to be (long and therefore) stressed. In section 2.2.2, I have analyzed the latter four prefixes as ending in a floating mora.
- Words ending in a consonantal cluster have an epenthetic [e] in *I*-final position. This [e] is stressed, unless it is preceded by a syllable containing a long vowel. Thus, a word like *marisn* 'happy' is realized as [mari'sen] in *I*-final position, with stress on the final *e*. Likewise, *d-ors* is realized as [do'res] in *I*-final, while prefixation of the same root *ors* with *sk^h*- '3PC' makes the vowel long and causes lexical stress to shift to the penultimate, so that the realization is ['skóres]. One could state, then, that for these words stress is on the final syllable in *I*-final position, unless it is preceded by a syllable containing a long vowel.
- What is true for the epenthetic *e*, is also true for the second part of compounds. When uttered in isolation or in *I*-final position, stress is on the final syllable, unless one of the preceding syllables contains a long vowel. This is clear from the comparison of the following pair, where the root *wáw* 'turtle' contains a long vowel, while *vrampin* 'finger' does not.

(11)	<i>vrampin</i>	<i>bei</i>	<i>wáw</i>	<i>bei</i>
	[vrampin	'bei]	['wáw	bei]
	finger	shell	turtle	shell
	'finger nail'		'turtle	shell'

Given that most disyllabic roots have final accent and that most trisyllabic roots have accent on the second syllable from the left, the realization of the majority of polysyllabic roots can – as stated above- be understood in terms of an iambic pattern, where iambs are assigned to a word from left to right. If another vowel is long, primary accent is on the syllable containing this vowel. One and the same word, however, can contain two or more syllables with a long vowel in sequence. In that case, the realization varies; sometimes, the syllables are equally prominent, sometimes, one (or two) of them is (are) more prominent than the other. Examples of words containing two or more syllables with a long vowel in sequence are the following: *y-ák-kón* '1SG-join-sit', *d-á-káwúr* '3SG-join-howl', or *íwós* / *d-áwós* '3SG-talk'.

Summarizing, we have seen the following:

- 1) Biak has long and short vowels.
- 2) Long vowels are usually accented, i.e. prominent in terms of length and pitch than short vowels
- 3) For a word uttered in isolation, short vowels have primary accent iff
 - they are the nucleus of the second syllable from the left and
 - the word does not contain a syllable containing a long vowel
- 4) If a word ends in a cluster, the epenthetic *e* in final position has primary stress in *I*-final position, unless the word contains a long vowel, in which case primary stress is on the long vowel.

Although the above stated regularities cover most of the forms, certain questions remain to be solved. First, it is remarkable that for virtually all of the vowel-initial verbs the initial vowel is long. Second it has been very difficult to obtain reliable data on the stress pattern of reduplicated words. The difficulty in obtaining data on reduplication patterns is tied to the difficulty in grasping the realization of two (or more) long vowels in sequence. I expect that

future research would benefit from a more thorough systematic analysis of the phonetic realization of stress among more speakers of the Wardo dialect.

As stated at the outset of this section, the analysis presented above should be seen as an initial attempt to grasp the data. Future research in Biak phonology should also be concerned with the evidence for long vowels in other positions than *_C#*. While in this position a contrast can be made between long and short vowels, in other positions the evidence for a contrast is rather weak, or absent. Weak evidence for a contrast was found in the position *_#* (cf. 2.5.1), but needs to be strengthened with additional examples, both by monosyllabic words and by bisyllabic words with final stress.

2.5.6 Stress in reduplicated words

For reduplicated verbs a difference in stress can bring about a marginal meaning difference. In particular, for several roots stress shift brings about a reciprocal interpretation, as in the following case:

surakrok [surak'rok] 'they make noise' vs. *surákrok* [su'rákrok] 'they are angry with each other'

Some more about stress and reduplication can be found at the end of section 7.4.2.1.

2.5.7 Intonational phrase and intonation contours

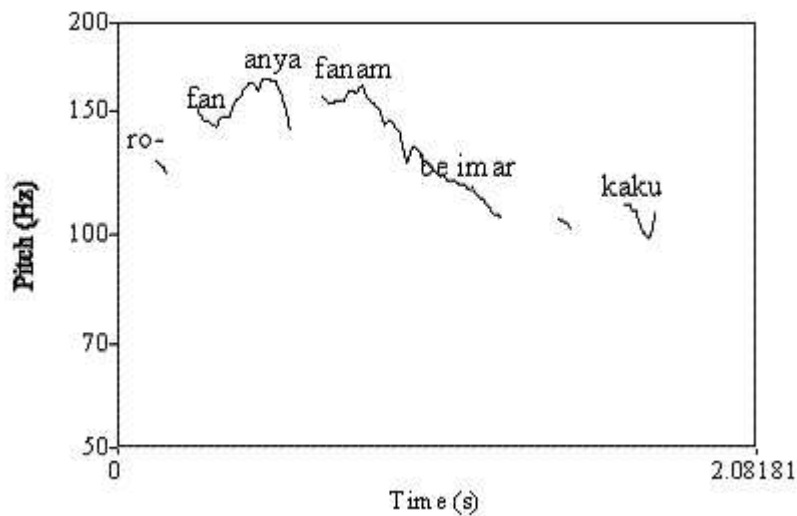
In the Biak language, an intonational phrase can simply be defined as the unit preceded and followed by a pause. The concept of 'intonational phrase' is not only helpful in the description of epenthesis described in 2.2, it is also the domain for most of the phonological rules, which will be discussed in 2.6 below. The rest of this section deals with intonational contour, which is another area for which the intonational phrase is relevant.

Intonational phrases are the units to which an intonational contour is assigned. One or more intonational phrases form a phonological utterance. A simple phonological utterance consists of only one intonational phrase. An example is the following

- (13) *Rofan anya fanam ve imar kaku#*
 rofan an-ya fanam ve i-mar kaku
 dog GIV-3SG.SPC close to 3SG-die really
 'The dog was really close to dying.' [HKat]

The intonational contour can be seen in the following picture, where the line shows the intonational pitch contour. Note that the default intonation contour rises towards the middle and then falls off towards the end of the utterance.

Figure 3 Illustration of a default intonation contour



Usually, a phonological utterance consists of several intonational phrases. One very common pattern is the one in which the intonational phrase starts with one or more intonational phrases having prepausal rising intonation, followed by an intonational phrase with falling intonation. The phrases are separated by a pause. In this section, I use the sign + to refer to a pause after rising intonation, while the sign # indicates a pause after falling intonation. A sequence of three dots is used for level intonation. In general, the phrases with rising intonation provide the setting for the intonational phrase with falling intonation. An example is given with sentence (15), which is part of a narrative and directly preceded by (14).

(14) (...) *vo imbeswa nansuine sufan rofan eser.*
 vo in-be-swa an-su-i-ne su-fan rofan eser
 SIM wife-LNK-husband GIV-DU-3SG.SPC-this 3DU-feed dog one
 '...and this couple fed a dog.' [HKae]

(15) *Sufanu rofanya indya . . .*
 su-fan=u rofan=ya indya
 3DU-feed=U dog=3SG.SPC so

na sura ve yáf ido +
 na su-ra ve yáf ido
 then 3DU-go to garden THEM

rofan anine vyark ro rum #
 rofan an-i-ne v<y>ark ro rum
 dog GIV-3SG.SPC-this <3SG>stay LOC house

They took care of a dog, so when they went to the garden, this dog stayed at home.'
 [HKaf]

In this sentence, the first part up till the first pause repeats part of the preceding sentence. The following part, with rising intonation sets the background for the rest of the sentence. This pattern is linked to the structure of Biak narratives, which may be built up according to a rather loose form of tail-head linkage. The intonational phrase with rising intonation repeats the last part of the preceding sentence in more or less the same words, after which the new

Table 31 Illustration of the mixed inflectional pattern

Stem: *kón* 'sit'
 3SG: *k<y>ón* '<3SG>sit'
 2SG: *k<w>ón* '<2 SG>sit'

When the stem begins with one of the bilabials /b/, /m/ or /f/, however, the infix for 2SG is a 'zero-morpheme', as is clear from the following forms. By using a zero morpheme \emptyset , the sequence of two bilabials is avoided:

Table 32 Mixed inflectional pattern for verbs with an initial bilabial consonant

Stem: <i>babo</i> 'new'	<i>mun</i> 'hit'	<i>fas</i> 'write'
3SG: <i>b<y>abo</i> '<3SG>new'	<i>m<y>un</i> '<3SG>hit'	<i>f<y>as</i> '<3SG>-write'
2SG: <i>b<$\emptyset '<2 SG>new'$</i>	<i>m<$\emptyset '<2 SG>hit'$</i>	<i>f<$\emptyset '<2SG>write'$</i>

In combination with a stem beginning with /v/, the addition of the zero-morpheme leads to the strengthening of /v/. The [+continuant] *v* changes into [-continuant] *b*, while the place and [-nas] features remain the same. An illustration is given with the verb *vors* 'row'

Table 33 Mixed inflectional pattern for verbs with an initial /v/

Stem: *vors* 'row'
 3SG: *v<y>ors* '<3SG>row'
 2SG: *b< $\emptyset '<2SG>row'$*

2.6.2 Nasals followed by other consonants

2.6.2.1 Sequence of nasal and /r/

In monomorphemic words, the sequence /n/ + /r/ is not attested. In polymorphemic words, a sequence of /n/ and /r/ is realized as [ndr], as was mentioned in 2.1.1. The sequence /m/ + /r/ is found in both polymorphemic and monomorphemic words, and realized as [mbr].

- (18) *i-mráne* [imbráne]
 3SG-walk
 'he walks'

The reduplication pattern clearly shows that *b* is not lexical. The reduplicated variant of *mrán* is *marandán*, a form that follows the regular pattern described in section 7.3.3.

Both the intrusion of *b* in *mr* and the intrusion of *d* in *nr* are the result of variation in timing between the different dimensions or gestures required for the realization of the individual segments (Booij 1995:137, Browman and Goldstein (1990)). Nasals are produced with an open velic passage, so that the air stream escapes through the nasal cavity, while all other segments are produced with a closed velic passage. The *b* and *d*- intrusion described just above are the result of denasalization (or closing of the velic passage) while the air stream through the oral cavity is still obstructed. The place features of the intrusive stops are those of the preceding nasal.

With respect to the realization of /r/ after /n/, a difference can be observed between words belonging to major lexical classes (verbs and nouns) on the one hand and other words and

other lexical items on the other hand. For major lexical classes, a sequence of /n/ and /r/ is realized as [ndr]. The phoneme /r/, in other words, 'survives' at the surface structure. For other words and morphemes, however, /r/ is virtually always realized as [d] when following /n/. Thus, the preposition *ro* 'LOC' is realized as [do] in *i-mrán ro di-ne* '3SG-walk LOC place-this' [imrándodine], while for the *r*-initial directionals that are part of motion adverbs, the realization [d] following /n/ is obligatory (as in *van-rum* 'side-inside' [vandum], cf. section 9.5.4, table 10). As will be shown in 2.6.3, a similar distinction between words of major lexical classes and other lexical items holds for the sequence of /r/ and /r/.

2.6.2.2 Sequence of nasal and /v/

Both within and across word boundaries, /v/ is realized as [b] when preceded by a nasal, as long as both are part of the same intonational phrase. The nasal /n/ may but need not be realized as [m], and is dependent on the mutual timing of closing the velic passage and changing the place of articulation. When the change of place precedes the closing of the velic passage, the result is a (transitional) [m]. In all of the following examples, *v* is realized as [b]:

(19) *n-vark* [nbark]
 3PL.INAN-live
 'they live' [ASdr]

(20) *rofanya bakn vyedya*
 [bakmbyedya]
 rofan=ya bakn v<y>e=d-ya
 dog=3SG.SPC body <3SG>POS=3SG-SPC
 'the dog's body' [HKbj]

While the rule is obligatory for *v*-initial verbs prefixed with *n-* '3PL.INAN' as in (19) above, in other contexts, the rule is preferred but optional, as is clear from the following example:

(21) *Wárna nkekf ve van var* [wárnəŋgekfvevanvar]
 wár=na n-kekf ve van var
 water=3PL.INAN.SPC 3.PL.INAN-throw to side side
 'The water splattered to both sides' [VYeg]

2.6.2.3 Sequences of nasal and /k/

Sequences of morpheme-internal /N/ and /k/ are always realized as [ŋg], as in the prefix *inko-*, realized as [iŋgo], or *ánkar* 'deceive', realized as [áŋgar]. The realization [g] is the result of spreading of the feature voice from the nasal to the following /k/.⁴⁰ We also find spreading of voice from nasal /m/ to a following morpheme-internal /k/, realized as [mg], as in the prefix *mko* '2PL', realized as [mgo].

Across morphemes, voicing has been attested for the verbal particle *kar* following a nasal, as in the following example. The realisation of /n/ as [ŋ] is the result of assimilation, cf. 2.1.1:

⁴⁰ One could also state that the phoneme here is neither /k/ nor /g/, but unspecified for voice.

- (22) *Pyankar* *aifyóri.* [pyaŋgar ai'fyóri]
 pyan-kar ai-fyór=i
 <3SG>touch-break wood-piece=3SG.SPC
 'He broke the wood with his hand (lit. touched-break it).' [CB_P_19]

It has also been attested for the sequence of the verbal prefix *n-* '3PL.INAN' followed by a /k-/initial root, as in the following example:

- (23) *Wárna* *nkekf* *ve* *van* *var*
 [wárnangekf]
 wár=na n-kekf ve var var
 water=3PL.INAN.SPC 3.PL.INAN-throw to side side
 'The water went to both sides.' [VYeg]

Finally, it is found in reduplicated roots, like *kankun*, which is the reduplicated form of *kun* 'cook'. The adaptation is not found, however, across word boundaries, so that the /k/ in the following example is realized as [k], not as [g]:

- (24) *Nkún* *kapírare* [ngúnkapirare]
 nk^h-ún kapirare
 1PL.EXC-take baby
 'We take a baby with us.' [ATdh]

That we do find /k/ realized as [g] within the boundaries of syntactic words and not across can be seen as a marginal indication of the existence of phonological words, which for the time being coincide with syntactic words. In the rest of the thesis, however, I will not make any further use of the concept 'phonological word'.

2.6.3 Sequence of /r/ and /r/

/r/,/d/ and /n/ differ minimally. Although they have been shown to be different phonemes in 2.1.1 above, dialectical variation shows that they are very close. Compare the following examples:

- (25) *rambav* '<type of mammal>'
dambav '<type of mammal>'
nambav '<type of mammal>'

As geminates are not attested in monomorphemic words, a sequence of /r/ + /r/ also is not found. As for other contexts, a distinction should be made between words belonging to the major lexical categories of verbs and nouns on the one hand, and other lexical items on the other hand. For verbs and nouns, /r/ preceded by /r/ in the same intonational phrase is optionally realized as [d]. Thus, the compound *mnivr rum* has the following two realizations:

- (26) *mnivr rum*
 bee nest
 [mnivr:um], [mnivrdum]
 'bee nest' [FFbc], [FPbi]

Lexical items that do not belong to the major lexical classes, on the other hand, show a very strong tendency to be realized as [d] following /t/, as in *sufrar rao* '3DU-run until', where *rao* is realized as [da(w)o].

2.6.4 Noun-final glides

The *i* in noun-final glides is often not realized when the noun is followed directly by the pronominal article. The following sentences form an illustration of this rule, with *wai* 'canoe' realized as *wa* and *ai* 'wood' realized as *a*. Note that *an* 'GIV' is realized as *nan* when following a vowel (cf. 5.3.1)

- (27) *Vyuk* *i* *i-rafrifno* [wa]_{noun} [vyedi]_{pron.article}
 v<y>uk i i-rafrifn=o wai v<y>e=d-i
 <3SG>use 3SG 3SG-heighten=O canoe <3SG>POS=3SG-SPC
 'He used it to heighten his canoe.' [RAai]

- (28) *Indya* *siryur* [a] [nanna]
 indya si-ryur ai an-na
 so 3PL.AN-gather wood GIV-PL.INAN.SPC

ma *ve* *svarapen.*
 ma ve s-varapn
 and want 3PL.AN-stone.bake
 'So they gather the wood and want to stone bake.' [ATbg]

The noun-final vowel *i* is not elided in other contexts, such as in compounds. *Ai-vidwóm* 'wood-upper.part,' for example, is realized as [aividwóme] and not as [avidwóme]. The question whether the rule only works for nouns and not for members of other categories awaits further investigation. As the corpus provides no examples of glide-final verbs followed by a pronominal article, the question should be answered by elicitation. As long as the rule has not been proven to work for verbs, it is better to stick to the stricter rule. I have chosen to show the noun final vowel *i* in the spelling.

2.6.5 Metathesis

Within the Wardo dialect, the only examples of metathesis are found with a number of verbs ending in the cluster *kf* / *fk*. For three out of the four verbs ending in this cluster, the two consonants of the cluster can be methathesized. Thus, metathesis is attested for the verb *kefk* / *kekf* 'hurl, shake', *kokf* / *kofk* 'rock, wobble' and *yofk* / *yokf* 'hide.for', but not for the verb *afk* 'bump. plop'. In addition, comparison of different dialects shows that metathesis of final consonantal clusters has probably played a role in the formation of the lexicon as it exists nowadays.⁴¹

⁴¹ If one compares different dialects, one finds some examples of 'metathesis' in final consonant clusters, like *amk* 'grasp' in the Wardo dialect versus the Northern Biak variant *akm* 'grasp.' Second, while the Wardo dialect epenthesis *e* after a lexically stressed VC, the dialect of SoweK / Korido inserts the *e* in between the vowel and the consonant. Thus, where Wardo has *bíne*, SoweK has *bíen*, and Wardo *káme* corresponds with SoweK *káem* (Cf. Steinhauer 1985). When the corresponding forms are compared, then, it looks as if the final consonant and *e* are metathesized. There is no reason to assume, however, that this is synchronically the case in either of the dialects, as the corresponding pairs do not systematically pop up within one and the same dialect. For the same reason, the final consonant clusters as in *amk* and *akm* only look like metathesized, but are not real examples of synchronic metathesis. Historically, these variants have probably come into existence by metathesis in one of the two consonantal clusters. Synchronically, however, there is no reason that metathesis still plays a role.

2.6.6 Sequence of /i/ and /i/

A sequence of /i/ and /i/ is realized as [i], within the domain of the intonational phrase. An example is given with *sne-ri i-dúfe* belly-POS.SG 3SG-ill 'my belly is ill' (i.e. I do not feel well), realized as [sneri'dufe].

2.7 Phonology in songs

In the discussion of songs with my consultants, it was often stressed that songs offer the creator a certain amount of creative freedom compared to normal language use. This section discusses some of the possible aberrations from the standard language. Note that these aberrations should be seen as possibilities, not as obligatory.

First, clusters can be broken up by a vowel. Word-final clusters can be broken up by *e* in any position, whereas the standard language only epenthesizes *e* in prepausal position. Non-final clusters can be broken up by *a*. An example of this is given in (29), where the cluster *sr* in the noun *srai* 'coconut' is broken up by *a*.

- (29) *sarai knam vesafsuf*
srai knam ve-saf~suf
 coconut tree REL-RED~cut
 'a coconut tree that produces palm wine'⁴² [KBad]

The following noun phrase, on the other hand, illustrates epenthesis of *e*; both the final clusters in *n-afk* '3PL.INAN-fall' and in *masn* 'salt water' are broken up by *e*, although they are not in prepausal position:

- (30) *nafek ro masen=di bo.*
n-afk ro masn=di bo
 3PL.INAN-fall LOC salt.water-3SG.SPC upside
 'They (the sun's radiation) fall on the water's surface.' [OSab]

Clusters are also broken up in reduplicated verbs, which are very frequent in songs. While reduplication in the standard language brings about a change in meaning, this is not necessarily the case in the language of songs. An illustration of this reduplication without a semantic function is given with the following example. To express that the water was 'fresh and cold', the normal language would not use the reduplicated variants *pararim* and *pananunek*, but would simply use the non-reduplicated variants *prim* and *pnunek*, respectively:

- (31) *Ipararím vo ipanuneko...*
i-p~ara~rím vo i-p~ana~nunk=o
 3SG~~RED~cooled.down SIM 3SG~~RED~cold=O
 'It (the water) was fresh and cold...' [WMbf]

⁴² The reduplicated form of *suf* 'cut' or 'peel' is used for the process of winning palm wine or producing palm wine. This wine is won by making a cut into a coconut that is still in the tree, which then starts to 'leak palm wine'.

Second, phonemes of standard-language words can be replaced by phonetically closely related phonemes. I attested replacement of *b* by *v* and of *o* by *u* and vice versa. An example of both replacements is the use of *vun* instead of *bon* 'fruit.'

Third, I found an example of the creative use of a phonological rule, where *ibunda* was used for *i-bur (ra)n-ra* '3SG-leave to.o.there-seawards.' The standard language would use *ibur ran-ra* '3SG-leave to.o.there-seawards', and realize the combination of *ran+ra* as [danda] (*n+r->nd*, cf. section 2.6.3 above), but would never allow the final *r* of a lexical root to be realized as *n*, as happens to *bur* 'leave' in the song.

As a final example of aberrant language use, the vowels *e* and *o* can be used at the end of words for decoration, or just to make the sentence fit the rhythm of the song. The use of vowels seems especially frequent in the traditional songs called *wor*. Vowels can be separated from preceding vowels by glides. The first two examples illustrate the use of *e* and *o* in a *wor*-version of the myth about the culture hero Manarmaker. The final example shows the use of other decorating elements and is taken from a *wor* that was composed especially for me:

- (32) Yabundae sinema
ya-bur-ra-e s-i-ne-ma
1SG-leave-sea-E 3PL.AN-SPC-this-TOP
- yapyar yakaki ro Mambarayuri,
ya-pyar ya-ka~ki ro Mambarayuri
1SG-float 1SG-RED~drift LOC Mambarayuri
- aboro indaie
abor=○ in-dai=e
bridge=○ fish-<type.of.fish>=E
- indai inmanyenefo.(WMak)
in-dai in-manyenf=○
fish-<k.o.fish> fish-<k.o.fish>=○
'I left them, and floated and drifted to Mambarayuri, the ridge where one finds
indai and inmanyenf fishes'
- (33) Mawendoye yádo yamasasiyo
Mawndori=e y-ádo ya-ma~sa~si=yo
Mawndori=E 1SG-get.out 1SG-~RED~wash=○
'(In) Mawndori I got out and went washing'
- (34) sup kovaninenonoya
sup ko-v=an-i-ne=no=no=ya
land 1PL.INC-POS=GIV-3SG.SPC-this=NO=NO=YA
'our land' [WGae]

2.8 Orthography

This section motivates the choices made with regard to the spelling in this thesis. In addition, some recommendations are made for an official spelling.

2.8.1 The use of space in spelling

One of the decisions to be taken in each spelling system is which units should be written as orthographic words. In this thesis, orthographic words correspond to syntactic words, unless there are special reasons to deviate from this correspondence. An additional principle is that clitics are written as one word with the word to which they attach. This section gives a few examples of how these principles are worked out in practice.

First, complex pronominal articles are usually written as separate words, since they form independent syntactic words (Cf. section 3.2.2). An example is given with *iwara* below:

- (35) *Fadu* *iwara*
 fadu i=wa-ra
 time 3SG.SPC=over.there-to.o.there
 'the past time' [TWbh]

Simple pronominal articles, however, are written as one unit with the preceding word, as they cliticize to the last word of the noun phrase (cf. 3.2.1). An example is given with (36), where *ya* cliticizes to *ba*, although it is not syntactically linked to it. The same example also contains two clitics =*u*.

- (36) *Yafáru* *man-kokoya* *kukru* *ikák* *vebaya*. (MIaa)
 ya-fár=u man-koko=ya kukr=u ikák ve-ba=**ya**
 1SG-tell=U bird-chicken=3SG.SPC with=U snake REL-big=3SG.SPC
 'I tell about a bird and a big snake.'

Second, compounds are written as one word. In some cases, however, a hyphen is added to improve the readability.

2.8.2 Epenthesized e

As described in section 2.2, both cluster final words and words ending in a stressed vowel plus a consonant lead to the epenthesis of *e* at the end of an intonational phrase. These epenthetic *e*'s are shown in the orthography in the position where they show up. In an official spelling, I would propose the same, as my consultants have no problems using this principle when they write Biak. This orthography is to be preferred to the traditional spelling, where clusters are always broken up by *e*, in whatever position. This leads to the effect that when texts are read aloud, this *e* is always realized, even in positions where it never occurs in natural speech. This is the case for a word like *kukr* 'with,' which never occurs at the end of intonation units, and therefore is never realized with epenthetic *e*. The proposed spelling avoids such artificial speech and reflects the realization more accurately.

An illustration is given with the following sentence, where we find the spelling *kaver* 'return' in prepausal position, but *kavr* in non-prepausal position:

- (37) *Kokavr* *ve* *mnu* *kovaniwara*,
 ko-kavr ve mnu ko-v=an-i-wa-ra
 1PL.INC-return to village 1PL.INC-POS=GIV-3SG.SPC-over.there-to.o.there

<i>Korem,</i>	<i>kokaver.</i>
Korem	ko-kavr
Korem	1PL.INC-return
'We return to our village over there, Korem, we return' [KOgj]	

2.8.3 Long vowels and stress

As was shown in 2.2.2 and 2.5.1, words containing a long vowel may be in opposition to words containing a short vowel. This is a strong argument for making the quality of the vowel come out in the orthography. In this thesis, this is done by an accent on the long vowel. In an official spelling, I would propose the same, but much would depend on the intuitions of the speakers and learnability of the system.

2.8.4 Loanwords

Loanwords are written in bold. Loans from Indonesian are written according to the 'standardized' Indonesian variants. Where affixes have been 'left out' compared to the Indonesian standard, the affixes are not shown in the spelling. Remarkable aberrations from 'standard' pronunciations are mentioned in a note, such as when the Indonesian /ŋ/ is realized as [n].

2.8.5 Phonemes and allophony

This section deals with the spelling of allophones. It answers the question when allophones of the same phoneme are spelled phonemically, and when they are spelled in accordance with their realization.

As a general rule, allophones are written phonemically when the triggering phonological context is separated from the phoneme in question by a syntactic word boundary. Allophony triggered by a (morpho-)phonological context within the syntactic word of which the phoneme is part, however, is shown in the spelling. This means that words like *voi* 'but' and *ve* 'to' are never written as *boi* or *be*, respectively, even though they are realized as such when preceded by a nasal. A *v*-initial verb like *vark*, however, is spelled with *b* when prefixed with *n*-'3PL.INAN', but with *v* when preceded by a noun ending in a nasal, although the *v* is realized as *b* in both cases. In the former case, *n* and *vark* are part of the same syntactic word, whereas in the latter they are not.

(38) <i>n-barek.</i>	<i>Yan</i>	<i>vyarek.</i> ([yan bya'rek])
n-vark	Yan	<y>stay
3PL.INAN-stay	Yan	<3SG>stay
'They stay'	'Yan stays.'	

Likewise, allophony within compounds is represented in the spelling, as in *mambri* 'hero', which is formed out of *man* 'male' and *vri* 'angry' or *vandum* 'inside', formed out of *var* 'side' and *rum* 'inner.part.'

3 WORD CLASSES

This chapter discusses the different word classes found in the Biak language. For both the closed and the open classes (i.e. verbs and nouns), the properties needed to define and characterize the class will be given. These properties may be of morphological, syntactic, semantic or pragmatic nature.

Because nominal and verbal phrases form the core constituents of virtually every clause, nouns and verbs should in principle be discussed at the outset of the present chapter. To facilitate the discussion of nouns and verbs, however, it is necessary to discuss the pronouns first. After a presentation of pronouns in 3.2, section 3.3 discusses nouns, while section 3.4 deals with verbs. The remainder of the chapter discusses the absence of adjectives (3.5), the prepositions (3.6), adverbs (3.7), conjunctions (3.8), numerals (3.9), quantifiers (3.10), question words (3.11), interjections and exclamations (3.12), and the clitics =*u* and =*o* (3.13).

Before we come to the presentation of the several word classes, however, first some words need to be said about the morphological units making up words. This will be the topic of the following section.

3.1 Morphological units: lexemes, words, stems, roots, affixes, clitics and other bound morphemes

Lexemes can be defined as the smallest distinctive units in the lexicon of the language. A lexeme is an abstract unit, covering a range of variant formal instantiations, each of which is a **word**. Thus, the lexeme *ra* 'go' has several inflectional variants, like *r<y>a* '<3SG>go' or *ko-ra* '1PL.INC-go', both of which are words. Words are built up of stems and affixes, and are the fillers of syntactic positions. **Stems** can be defined as 'those elements of word structure to which inflectional affixes are attached' (Crystal 1999:319). Stems may be simplex or complex. A complex stem consists of a root combined with one or more other roots or derivational affixes, while a simplex stem consists of one root only. Complex stems can also be formed by reduplication of (part of) roots, as discussed in Chapter 7.

The **root** is "an unanalyzable form that expresses the basic lexical content of the word" (Payne 1997: 24). Roots can be content words such as verbs and nouns or function words such as conjunctions or (free) pronouns. They may form a word on their own, or function as the base for further derivation or inflection. Thus, in the following example, *kwar* 'already' functions as an independent word, while the verbal root *mnai* serves as the stem for the pronominal prefix *i*-'3SG-'.

- (1) *Imnai* *kwar?*
i-mnai *kwar*
3SG-stop already
'Has it stopped yet?' [MSaf]

Affixes are bound morphemes that typically do not express the lexical content of words. In addition, they typically attach to roots from a fixed lexical category. A commonly made distinction is that between inflectional affixes, which create different forms of the same word, and derivational affixes, which create new words. Inflectional affixes are primarily markers of grammatical relations, whereas derivational affixes primarily change the lexical content of the word. As Biak has little derivational morphology, most of its affixes are inflectional. The language makes use of prefixes and infixes, and a reciprocal suffix *yáe*. One of the prefixes,

the prefix *ák-*, is stressed independent of its position in the intonational phrase. The other affixes are not stressed.¹

In addition to the real affixes, the language has a rich set of affix-like **bound morphemes** that attach to a directly neighboring morpheme. These bound morphemes are like affixes in that they are not attested as free morphemes and have to combine with a neighboring morpheme. On the other hand, they resemble free morphemes (roots) in that they have a richer lexical content than is usual for affixes. One group of bound morphemes is formed by the verbal **suffixoids**, discussed in 4.3.2. An example is given with the suffixoid *bas* 'loose,' as exemplified in the following sentence:

- (2) *Rama koso bas i.*
 rama ko-so bas i
 afterwards 1PL.INC-throw loosen 3SG
 'Afterwards we loosen it (the sago pulp) by throwing' [SSab]

Other bound morphemes that are not really affixes are the directionals and demonstrative motion markers that can all be used in the formation of complex pronominal articles. A special type of non-affixal bound morpheme is formed by the simple pronominal articles, like *=s-i~=s-ya* '3PL.AN-SPC', which can combine with words of whatever category and should therefore be considered as **clitics**. These will be discussed in section 3.2 below.

Some examples of bound morphemes are the following:

- *s-i-vun-wa* '3PL.AN-SPC-middle-over.there -> 'the ones over there.' It consists of the personal pronoun *si*, which here has lost its final *i* in combination with the following specifier-suffix *-i* 'SPC'. The suffix *i* is followed by the bound directional *-vun* 'middle', which again is followed by the bound demonstrative *-wa* 'over there.'
- *r-vun* 'to.o.there-middle' -> 'move to the middle.' Here, both *r-* 'move' and *-vun* are bound morphemes.
- the compound *varvun* 'side-middle', consisting of the root *var* 'side, area' followed by the bound morpheme *vun* 'middle'

Other frequently used clitics are *=u* and *=o*, which will receive brief attention at the end of this chapter.

3.2 Pronouns and pronominal articles

As mentioned above, the pronouns are presented as the very first in this Chapter, because a good knowledge of the pronominal system facilitates the understanding of the following discussion of the nouns (3.3) and the verbs (3.4). As will be shown in this section, the bound personal pronouns are used in verbal inflection, while the related pronominal articles are found in virtually every noun phrase.

As the section title suggests, Biak pronouns and Biak articles are morphologically related. This is not remarkable, given their strong functional similarity; both pronouns and articles function to situate a given participant within discourse, by indicating their relative discourse or spatial (directional, motional) status (cf. Schwartz 2000: 795, Schachter 1985: 40). The use

¹ Except for prefixes that combine with verbs beginning with a floating mora, which causes the prefix to be stressed. In that case, stress is not an inherent feature of the prefix, however, but is triggered by the verb. Compare section 4.1.1.2

of identical or related forms for pronouns and definiteness or specificity markers is not uncommon in Austronesian languages, especially in the languages of Indonesia (Adelaar and Himmelmann 2005: 151).

The section opens with the presentation of the personal pronouns and pronominal articles in 3.2.1. Section 3.2.2 shows how the forms of the simple pronominal articles can form the base for complex articles, which specify nouns for their position (or movement) within discourse and space. The subsequent section 3.2.3 pays attention to indefinite pronouns and indefinite articles, which are mutually different but still related in form. The same is true for interrogative pronouns and interrogative articles, which form the topic of 3.2.4. Emphatic pronouns are dealt with in 3.2.5, which also discusses the expression of reflexivity and reciprocity. Section 3.2.6 gives an overview of the adnominal and pronominal expression of possession, while section 3.2.7 closes off with a presentation of partitive pronouns.

3.2.1 Free personal pronouns, pronominal articles and verbal pronominal affixes

The following table presents the free and bound personal pronouns, the pronominal affixes on the verb and the articles found at the end of a noun phrase. Singulars are used for reference to single entities, duals for reference to two entities, the paucal for small groups, while the plural is used for larger groups. Inclusive pronouns include the addressee, while exclusive pronouns refer to the speakers only. With respect to the semantic range of the paucal, it should be noted that it is used for reference to three entities or more, as long as a group is considered 'relatively small'. Thus the corpus contains an example of *sko* used for groups of objects that are explicitly larger than three objects (**bintang** *ri fik an-sko-i-ne* 'star NUM.LNK seven GIV-3PC-SPC-this -> 'these seven stars').² For what are conceived of as 'larger groups', however, speakers use *si* when referring to animates, and *na* when referring to inanimates, a difference that will receive attention in 3.3.3.3.

² In this respect, it is interesting to consider the paradigms for inalienable morphology referring to next of kin in Chapter 6. For reference to a group of 'next of kin', the inalienable morphology only provides a paucal and no plural. In other words: the number of ego's uncles, cousins, etc. is 'paucal' by definition.

Table 1 Free personal pronouns, pronominal affixes and articles

	free personal pronoun	pronominal affix			pronominal article (specific) ³
		set 1	set 2	set 3	
1sg	aya	ya-	y-	ya-	?/=ya-i ⁴
2sg	aw	wa-	w-	<w> ⁵	=aw-ya/=aw-i ⁶
3sg	i	i-	d-	<y>	=ya/=i
1du.inc	ku	ku-	ku-	ku-	=ku-ya / =ku-i
1du.ex	nu	nu-	nu-	nu-	=nu-ya / =nu-i
2du	mu	mu-	mu-	mu-	=mu-ya / =mu-i
3du	su	su-	su-	su-	=su-ya/=su-i
3pc	sko	sko-	sk-	sko-	=sko-ya/=sko-i
1pl.inc	ko	ko-	k-	ko-	=ko-ya / =ko-i
1pl.ex	inko	(i)nko-	(i)nk-	(i)nko-	=inko-ya / =inko-i
2pl	mko	mko-	mk-	mko-	=mko-ya / =mko-i
3pl.an	si	si-	s-	s-	=s-ya/=s-i
3pl.inan	na	na-	n-	n-	=na

Considering the forms of the (free) pronouns, some interesting regularities can be observed. The dual forms all end in *u*, which can be traced back to proto-Austronesian (PAN) *Du(S)a. The paucal and 1st and 2nd plural forms all end in *ko*, which can be traced back to PAN *telu. Evidence for this analysis comes from comparison with Ambai (Silzer 1983), whose free pronouns are compared to those of Biak in Table 2 below. First note that Biak systematically has *k* where Ambai has *t*. In addition, Ambai has *toru* where Biak has *ko* and (*u*)*ru* where Biak has *u*, as can be seen in Table 2 below. This *u* is also found in the dual forms of Warembori (*amui* '1DU.EXCL', *kui* '1DU.INC', *mui* '2DU' and *tui* '3DU', Donohue 1999:19).

³ More on the form and functions of the markers of the end of the noun phrase can be found in Chapter 5.

⁴ The evidence for a final 1SG pronominal marker is provided by a single example in the corpus only, which can be found in 10.3.5 (example (59)) on cleft constructions. An example of a 1SG pronominal marker in other than *I*-final position has not been attested.

⁵ The infix <w> is not realized after stems that begin with a bilabial, in accordance with a general rule in the language that avoids the sequence of two syllable-internal bilabials (cf. section 2.6.1). The sequence of bilabial *v* plus the infix <w> is realized as [b], as in *badír* '2SG-make.known' from *vadír* + <w> 'make.known' (example (3)). For illustrations of the different patterns of verbal inflection see section 4.1.

⁶ The variant *i* is found in prepausal position, cf. section 5.2.1

Table 2 Biak, Ambai and proto-Austronesian free personal pronouns compared

	Biak	Ambai	proto-Austronesian
1sg	aya	yau	
2sg	aw	wau	
3sg	i	i	*ia
1du.inc	<i>ku</i>	<i>туру</i>	
1du.exc	<i>nu</i>	<i>auru</i>	
2du	mu	<i>muru</i>	
3du	su	<i>uru</i>	
3pc	<i>sko</i>	<i>itoru</i>	
1pl.inc	<i>ko</i>	trial: <i>totoru</i>	*kita
1pl.exc	(i) <i>nko</i>	trial: <i>antoru</i>	*kami
2pl	<i>mko</i>	trial: <i>muntoru</i>	*kamu
3pl.an	si	trial: <i>itoru</i>	*siDa
3pl.inan	na	-	

3PL.AN *si* can be related to PAN *siDa (through the path *siDa > **sira >si, comparable to what Donohue suggests for Warembori). The *s* is also found in the other 3rd non-singular forms *su* and *sko*. The *k* in first person exclusive *ku* might be related to PAN *kita (with loss of initial *k* and *t>k), as Silzer suggests for the first inclusives in Ambai. The *n* in Biak *nu* '1DU.EXCL' and (i)*nko* '1PL.EXCL' might be related to PAN *kami, with loss of *k* (as also happened in Warembori, which has *ami*) and initial assimilation of *m* to the following *t* as still visible in Ambai.⁸ The *m* of the second person, finally, might be related to PAN *kamu, again with loss of initial *k*. The origin of the first and second singular remains unclear, although the forms of Ambai and Warembori (which has *awi* '2SG', but *iwi* '1SG') are clearly related. The 3rd person *i* can be related to the Austronesian form *ia '3SG'. The 3PL.INAN *na* is found as a plural (indicative) marker on nouns in Warembori, but not as a free pronoun.⁹

The distribution of the free personal pronouns is more restricted than that of nouns. They share their main distributional properties with nouns in that they can appear as complement of a predicate or a preposition. In contrast to nouns, however, they are not attested in subject position. While example (3) illustrates the use of the pronoun as complement of a verb, the ungrammaticality of (4) makes clear that it cannot be used as subject.¹⁰

- (3) *Badir* *i* *ve* *aya*.
 badir *i* *ve* aya
 2SG.announce 3SG to 1SG
 'Make it known to me.' [MMgs]

⁷ The Ambai trial is comparable to the Biak paucal in that it often has the value of a limited plural, which according to Capell (1976:14) is typical in Eastern Indonesia (Silzer 1983:120).

⁸ Initial /k/ is also lost in several lexical forms like *ark* 'bite' < PAN *kaRat, ~POC *karat or *ink* 'pluck' < PAN *ki+nit, ~POC *kinit (For the reconstructions see Tryon 1995, Evans 2003: 321).

⁹ In Warembori the 3PL pronoun is *ti*, related to Biak *si*. Plurality on nouns may be expressed by *na*, but several nouns expressing close kin terms take *-ti* instead of *-na*, which is reminiscent of the animate-inanimate distinction in Biak.

¹⁰ This situation is similar to that in Ambai, where 'pronouns are not used as free forms in Subject position. Person and number information is already marked on the verb by subject prefixes' (Silzer 1983:122).

- (4) (**I*) *dores.*
 i d-ors
 3SG 3SG-stand
 'He stood.' [el]

The pronominal affixes combine with verbs according to three possible inflectional patterns given in Table 1 above, the choice of which is partly phonologically conditioned and further explained in Chapter 4 on verbs. As will be argued in the same chapter, the pronominal affixes are person markers and not agreement markers, as they do not require the presence of a coreferential NP in the same nuclear clause. Thus, the following sentence is grammatical both with and without the presence of the full NP *rusa nanine* 'this deer'

- (5) (**Rusa** *nanine*) *dores.*
 rusa an-i-ne d-ores
 deer GIV-3SG.SPC-this 3SG-stand
 'This deer stood.' [FYcy]

The pronominal articles as given in Table 1 above are combinations of a pronominal marker followed by a marker for specificity. The marker of specificity has two allomorphs: *-ya* can be used in all positions, whereas the use of *-i* is restricted to prepausal position. While most articles can easily be segmented into a pronoun and a specifier, this is more difficult for the 3rd singular forms =*i* and =*ya*, and the 3rd plural inanimate =*na*, where the pronouns and the specifier have merged into a single portmanteau morpheme.

The distributional properties of the pronominal articles mean that they should be considered clitics. The pronominal articles are found in final position of the noun phrase that they determine. Consider the following examples:

- (6) *Wákmám* [*Wardoinkoya*]_{NP} *va* *vo....*
 w-ák-mám Wardo=inko-ya va vo
 2SG-also-see Wardo=1PL.EX-SPC not SIM
 'You do not see also us (inhabitants of) Wardo, but ...' [VYfw]

- (7) *Ifrúr* [*for vebaya*]_{NP}.
 i-frúr for ve-ba=ya
 3SG-make fire REL-big=3SG.SPC
 'He made a big fire.' [MMiw]

Unlike the complex articles discussed in the following section, the morphologically simple articles as given in Table 1 above need a phonological host at their left side to be attached to. As such, they may attach to words of different lexical classes, as long as this word forms the last word of the noun phrase. This is illustrated in (7) above, where the article attaches to the verb *ve-ba* 'REL-big', as this is the last word of the noun phrase headed by *for* 'fire'. A comparable example is given with (8) below, where the determiner =*ya* '3SG.SPC' is phonologically attached to the proper noun *Wardo*, as this is the last word of the entire NP headed by *sinan* 'parent'.

- (8) *Voi* ... [*sinan* *vepon* *vevebuka* *Wardoya*]_{NP}
 voi ... sinan ve-pon ve-ve-buka Wardo=ya
 but ... parent REL-first REL-VBLZ-open Wardo=3SG.SPC

snori *Funnanki*.
 sno-ri Funnanki
 name-POS.SG <Funnanki>

'But the first ancestor that opened Wardo, his name was Funnanki' [BMad]

While the pronominal articles as given in Table 1 above need a phonological host to be attached to, this is not true for the more complex pronominal articles discussed in the following section. Compare the following examples:

- (9) *Anya* *dóve*:
 an-ya d-óve
 GIV-3SG.SPC 3SG-say:
 'It (the star) said!' [MSej]

- (10) **Ya* *dóve*: / **Mkoya* *mkóve*
 *ya d-óve / mko-ya mk^h-óve
 3SG.SPC 3SG-say: 2PL-SPC 2PL-say
 *'It (the star) said:' *You said

The complex article *anya* 'GIV-3SG.SPC' in (9) is used independently – it needs no host to be realized. This is not possible, however, for the simple pronominal articles =*ya* or =*mko-ya*, as is clear from the unacceptability of (10). The articles phonologically bind to the last word of the noun phrase, independent of the category to which this word belongs. This is the main reason to consider them clitics.¹¹

3.2.2 Complex articles

The Biak article can be augmented with a range of formatives, which can lead to the formation of complex articles. The formatives combine into complex forms in a fixed order, which is represented here:

(11) Structure of the complex article ('givenness', 'specificity' and 'motion' should be read as 'marker of givenness', 'marker of specificity' and 'marker of motion', respectively)

givenness–person.number.gender–specificity–directional–demonstrative–motion

An example of a complex article in which all positions are filled is the following:

- (12) [*Romawa* *nan-mko-i-pur-ya-fa*]_{Art.}]_{NP}
 child GIV-2PL-SPC-back-that-to.there
 'You children passing at the back there' [el]

Note that the complex article can be analyzed as built around the pronoun-specifier combination, which in complex forms always has the form *i-* (and not *ya*). All complex

¹¹ Although clitics typically do not bear stress, this is not true for all of the articles; the disyllabic words usually have stress on the first syllable, while the other articles are usually but not necessarily unstressed.

articles contain at least a pronoun-specifier combination. The co-occurrence possibilities and restrictions of the various other formatives will be given in Chapter 5 on the noun phrase, and chapter 9 on space, which will also discuss the formatives' functions. This section only tries to shed light on the morphological classification of the formatives making up the complex articles and on the complex articles as a whole.

As to the formatives making up the complex articles, it is clear that they are bound forms. All of the formatives need to combine with at least a pronominal marker and a specifier and cannot occur on their own. The fact that all of these formatives have to be bound to the pronominal-specifier combination might suggest that they should be analyzed as affixes. This analysis is not very insightful, however, for the following reasons. First, affixes typically attach to roots of a fixed lexical category. Neither the pronominals nor the specifiers, however, are lexical roots. Instead, they are functional roots, expressing grammatical properties (person, number, specificity) of the noun phrase. Second, affixes typically express grammatical information. Considering the formatives under discussion, however, especially the directionals and motion markers do not express grammatical information, but have quite a rich lexical content, locating entities in space and expressing the direction in which they move. Given the fact that these formatives are neither affixes nor free lexical items, I have chosen to term them as bound lexical morphemes.

Considering the complex articles as a whole, they should be described as morphologically complex words with a limited distribution. They are (syntactic) words for two reasons. First, the complex articles cannot be broken up by other words, which is typical for words and makes them different from phrases. Second, the complex articles can be used without a host, which shows that they are phonologically independent and, therefore, not part of a preceding word. An example has been given in (9) above, while another example is the following:

- (13) [*Anipurwa*_{Art}]_{NP} *syéwar* *nyan.*
 an-i-pur-wa s<y>éwar nyan
 GIV-3SG.SPC-back-over.there <3SG>seek way
 'The one at the back there looked for a way (out).' [SKbv]

Although the complex articles can be analyzed as syntactic words, their distribution is rather limited, as they are attested only at the end of noun phrases. Even in case the article appears without a host, it still occupies the last position of the noun phrase, which happens to lack an overt head. This is clear from the comparison of (13) above with (14) below. While the complex article lacks an overt head in (13), in (14) it combines with the overt *ikák* 'snake'.

- (14) [*Ikák* *aniyasne* _{Art}]_{NP} *nyás* *i.*
 ikák an-i-yas-ne n<y>ás i
 snake GIV-3SG.SPC-up-this <3SG>smell 3SG
 'This snake up here smelled it.' [KOew]

Finally, some words need to be said about the relation between the articles and the pronouns. In the case of simple pronouns, it is clear that a difference can be made between the free pronouns and the pronominal articles. Free pronouns can appear as the complement of prepositions and verbs and differ morphologically from the pronominal articles in that they lack a marker of specificity. Considering complex articles, however, the question is whether we should assume the existence of a morphologically similar group of pronouns. I would like to suggest that it is not very helpful to assume the existence of complex pronouns. First,

although a form like *anipurwa* in (13) could be considered a pronoun rather than an article, the interpretation of *anipurwa* as determining a noun phrase without overt head also accounts for the facts. Moreover, this analysis allows for the simple generalization that all complex forms containing the specifier *i* (or *ya*) are articles. It rightly excludes the free pronouns, but includes both the 'simple articles' given in Table 1 and the complex articles discussed in this section. Second, when we assumed the existence of complex pronouns, we would need to stipulate that complex pronouns can appear as subjects, as in (13) above, while simple pronouns cannot, as illustrated in (4) above. If we assume, however, that the language has no complex pronouns, but only complex articles, we do not need this stipulation. The generalization that free pronouns cannot appear as subjects accounts for the ungrammaticality of (4) above, but does not apply to (13) above, as the subject in (13) is a normal NP.

3.2.3 Indefinite pronouns

As will be explained in Chapter 5 on noun phrases, the main opposition in the Biak system of reference to entities is not that between definite and indefinite NP's, but the opposition between specific and nonspecific NP's. Specific noun phrases refer to entities that exist in the world of discourse, while nonspecific noun phrases refer to entities that do not exist as a well-defined entity in the world of discourse. Specific noun phrases are marked with one of the specific pronominal articles given in Table 1 above, while nonspecificity can be marked explicitly by the use of nonspecific articles: *-o* for singular and *-no* for plural noun phrases. A typical example of the opposition is given with the following minimal pair:

- (15) a *Ifúr* **yuko** *fa* *yún* *i* *ve* **Waranda.**
 i-fúr yuk=o fa y-ún i ve Waranda
 3SG-make ukelele=nonSP.SG CONS 1SG-take 3SG to The.Netherlands
 'He is making / will make a ukelele so that I can take it to the Netherlands.' [el]
- b *Ifúr* **yukya** *fa* *yún* *i* *ve* **Waranda.**
 i-fúr yuk=ya fa y-ún i ve Waranda
 3SG-make ukelele=3SG.SPC CONS 1SG-take 3SG to The.Netherlands
 'He has made a ukelele so that I can take it to the Netherlands.' [el]

In (15) a, the use of the nonspecific =*o* 'nonSP.SG' indicates that the ukelele does not (yet) exist in the world of discourse as a well-defined entity, while the use of =*ya* '3SG.SPC' indicates that it is finished. As further explained in chapter 5, the nonspecific article can also be used to question or deny the existence of an entity.

We now turn to the indefinite pronouns, which form the topic of the current section. Although the indefinite pronouns cannot be contrasted with definite pronouns, the term 'indefinite' is chosen to express that these pronouns usually refer to entities whose precise identity is irrelevant for communicative purposes, as will be made clear in the course of this section. Within the realm of indefinite pronouns, an opposition is made between a set of specific pronouns on the one hand and a set of pronouns that are neutral with respect to specificity, a point we will come back to below. The two sets are given in the following table:

Table 3 Specific and nonspecific indefinite pronouns

	set 1: + specific, - definite	set 2: ± specific, -definite
SG	<i>i-ya</i> '(some) one' / '(the) other'	<i>oso</i> '(some) one'
DU	<i>su-ya</i> 'some two persons' / '(the) other two'	
TR	<i>sko-ya</i> 'some few persons' / '(the) other few'	
PL.AN	<i>si-ya</i> 'some' / 'others'	(<i>n</i>) <i>ono</i> 'some' ¹²
PL.INAN	<i>na-ya</i> 'some' / 'other'	

The forms of the first set are all built up out of a free pronoun (given in Table 1 above), followed by the marker for specificity *-ya*. As can be seen in Table 4 below, the dual and trial forms are homophonous to pronominal articles, while the singular and plural forms differ:

Table 4 Specific indefinite pronouns and specific pronominal articles compared

	specific indefinite pronoun	3 rd person pron. article (specific, ± definite) ¹³
SG	<i>i-ya</i> ['iya]	= <i>ya</i> / = <i>i</i>
DU	<i>su-ya</i> ['suya]	= <i>su-ya</i>
TR	<i>sko-ya</i> ['skoya]	= <i>sko-ya</i>
PL.AN	<i>si-ya</i> ['siya]	= <i>s-ya</i>
PL.INAN	<i>na-ya</i> ['naya]	= <i>na</i>

The set-2 indefinite pronouns *oso* and (*n*)*ono* in the third column of Table 3 are diachronically related to the nonspecific articles =*o* 'nonSP.SG' and =*no* 'nonSP.nonSG', which will be discussed in Chapter 5 on nouns. The difference between the set-2 pronouns and the nonspecific articles is twofold. First, there is a syntactic difference, in that the nonspecific articles are used exclusively as NP-final clitics, while the indefinite nonspecific pronouns are predominantly used as independent pronouns, possibly in apposition to a full NP. The latter possibility is illustrated in (16) below, where we find the plural indefinite pronoun following the full NP *swán ayesya* 'my palm wine'.

- (16) *Yákinm swán ayesya nono va.*
 y-ák-inm swan aye=s-ya nono va
 1SG-also-drink palm.wine 1SG.POS=3PL.AN-SPC some not
- vo wérer winm ker."*
 vo w-érer w-inm ker
 SIM 2SG-alone 2SG-drink continually
 'I do not (also) drink any of my palm wine, while you alone drink all the time.' [MSmv]

Whereas all of the indefinite pronouns can be used pronominally, only *oso* is also used adnominally (as an article), but its use seems to be restricted mainly to the fixed expression *ras oso* 'one day'.¹⁴ A second difference between the set-2 pronouns and the nonspecific

¹² The allomorph *nono* seems to be specific for the Wardo dialect, *ono* being the more widely used word.

¹³ It will be shown in Chapter 5 on noun phrases that the pronominal articles given in Table 4 can be used in both definite and indefinite contexts. The present chapter will not further go into the difference, but focus on the two sets of indefinite pronouns.

¹⁴ Except for the fixed expression *ras oso* 'one day', the adnominal use of *oso* was attested in one text only. This text was given me, however, by a speaker from Eastern Biak, speaking a different dialect from the Wardo dialect that is the focus of this thesis. At several points in the corpus, we find the expression *rasya oso*, which contains both the specific article =*ya* and the indefinite pronoun *oso*. The corpus thus contains *rasya* 'day-3SG.SPC', *ras oso* 'day INDEF.SG' and *rasya oso* 'day 3SG.SPC INDEF.SPC' as almost synonymous expressions. The semantic difference between the expressions is unclear.

articles is more of a semantic-pragmatic nature. While the nonspecific articles are markers of nonspecificity, the set-2 pronouns can probably better be analyzed as markers of indefiniteness, which are neutral with respect to specificity.¹⁵ This brings us back to the partial opposition given above, that between set-1 specific indefinite pronouns and set-2 indefinite pronouns that are neutral with respect to specificity. The meaning difference between the two sets is subtle, and can only be described tentatively. Given that the opposition between the two sets of pronouns is only partial, in many contexts the two pronouns can be used interchangeably. More specifically, contexts allowing for the use of specific set-1 pronouns also allow for the use of set-2 pronouns, as is the case for (17) below, where *siya* can be interchanged with (*n*)*ono* without any observable change in meaning.

- (17) *Saroya* *dorn* *siya*,
 saro_i=ya d-orn si-ya
 whale-3SG.SPC 3SG-swallow 3PL.AN-SPC
- siya* *sinm* *monda* *ra* *simar*.
 si-ya s-inm monda ra si-mar
 3PL.AN-SPC 3PL.AN-drink only until 3PL.AN-die
 'The whale ate some, others drank until they died.' [TWbt]

Other contexts, however, seem to allow for the use of set-2 nonspecific indefinite pronouns only. One context ruling out the use of a set-1 specific pronoun is the following negative context, where it is clear that *oso* does not refer to a specific entity. More research is necessary to find more contrastive pairs.¹⁶

- (18) *Ro* *fyór* *iwara*,
 ro fyór i-wa-ra
 LOC part 3SG.SPC-over.there-to.o.there
- oso* *ryo* *Wardo* *va*.
 oso r<y>o Wardo va
 INDEF.SG <3SG>LOC Wardo not
 'In former time, there was no one in Wardo.' [BMad]

Another difference between the two sets of course is that the set-1 pronouns allow for more distinctions in number, and unlike the set-2 pronouns provide trial and dual forms, as in the following example

- (20) *Na* *knik* *koveari* *ra* *imnai*
 na knik ko-ve-ari ra i-mnai
 Then moment 1PL.INC-VBLZ-service until 3SG-stop,end

¹⁵ The main reason for this analysis is that we occasionally find the set-2 indefinite pronoun *oso* in combination with specific noun phrases, as in the expression *ras=ya oso* 'day=3SG.SPC INDEF'. This makes it impossible to consider the pronoun as a marker of nonspecificity.

¹⁶ In fact, during my fieldwork period I was not so much focused on the difference between the two sets. It was only back in the Netherlands that I became interested in the difference. The judgment on the ungrammaticality of the use of set-1 pronouns in (18) above was given by Chris Padwa by mail and confirmed by Zacharias Sawor from Soweik, who lives in the Netherlands and could be consulted more easily.

<i>suya</i>	<i>susanarnirm</i>	<i>kukru</i>	<i>sapropya.</i>
su-ya	su-sanarnirm	kukr=u	saprop=ya
3DU-SPC	3DU-quarrel.with.words	with=U	land=3SG.SPC

'In a moment we will have finished our service, and then there are *two* who (start to) quarrel because of (problems with) the land.' [PDca]

In example (20) above, the speaker sketches the situation in which two people quarrel about the land. The identity of the two persons is irrelevant for the message, which accounts for the use of an indefinite pronoun. The only thing to be communicated is that the two people exist in the world of discourse.

The rest of this section discusses similarities between the two groups of indefinite pronouns. The pronouns have a slightly different function dependent on the context, covered by different English translations. In some contexts, we have to translate by 'some' or '(a) certain', in other contexts we have to use the translation 'other', 'another', 'others' etc. That is not to say, however, that we have to do with different meanings from the perspective of the Biak language: both 'some' and 'other' refer to an indefinite subset of members of one and the same category as the just evoked category. In the case of 'some', the set of members referred to by the pronoun is part of the set evoked by the preceding context, as in the example above, where *koveari* has evoked the set of 'we that hold a service'. A similar example is given with (21) below, where the pronoun *iya* selects one indefinite member from the just given group of *Yembise=s-ya* 'people of the clan Yembise':

(21)	<i>Ro</i>	<i>dine,</i>	<i>Wardo,</i>	<i>Yembisesya</i>	<i>síbóre</i>
	ro	di-ne	Wardo	Yembise=s-ya	si- ^h bór
	LOC	place-here	Wardo	Yembise=3PL.AN-SPC	3PL.AN-much

<i>isofro</i>	<i>iya</i>	<i>rya</i>	<i>kyain</i>	<i>ro</i>	<i>Orisu,</i>
isofro	i-ya	r<y>a	k<y>ain	ro	Orisu
until	3SG-SPC	<3SG>go	<3SG>sit	LOC	Orisu

<i>iya</i>	<i>rya</i>	<i>kyain</i>	<i>ro</i>	<i>Kris.</i>
i-ya	r<y>a	k<y>ain	ro	Kris
3SG-SPC	<3SG>-go	<3SG>sit	LOC	Kris

'In this place, Wardo, the Yembise's were many, until there was one (of them) who went to live in Orisu, another one went to live in Kris.' [BMam]

In the case of 'other', on the other hand, the set of entities referred to by the pronoun belongs to the same category as the category evoked by the context but not to the same subset of this category. Two examples are the following. In (22), *ono* refers to entities belonging to the category of islands, but not to the same subset of islands as *Wundi* in the preceding context. Sentence (23) is part of a story in which it has just been told how different girls have gone to take a bath. In this sentence it is told how the chief's daughter is more beautiful than all the others. The context has evoked the category of girls, *inai vyanya* 'his daughter' selects one member of the category of girls and the indefinite pronoun *siya* refers to all other members.

(22)	<i>Syun</i>	<i>ro</i>	<i>Wundi (...)</i>
	s<y>un	ro	Wundi
	<3SG>enter	LOC	Wundi

<i>Syun</i>	<i>ro</i>	<i>ono</i>	<i>va</i>	<i>vo,</i>
s<y>un	ro	ono	va	vo
<3SG>enter	LOC	PL.INDEF	not	SIM

<i>myós</i>	<i>rya</i>	<i>syun</i>	<i>roya</i>	<i>iri.</i>
myós	r<y>a	s<y>un	ro=ya	i-ri
island	<3SG>-go	<3SG>enter	LOC=3SG.SPC	3SG.PRED-ANAPH

'He entered at Wundi. He did not enter other islands, but the island he went to enter into was this.' [MSkk]

- (23) *Inai* *vyanya* *idosr* *syadi* ***siya*** *káme.*
 inai v<y>=an-ya i-dosr syadi si-ya kám
 daughter <3SG>POS=GIV-3SG.SPC 3SG-good more 3PL.AN-SPC all
 'His daughter was more beautiful than all the others.' [MMhd]

Another example where the pronoun refers to 'other members of the same category' is the following, where the interpretation is reciprocal. It is part of a speech on problems with land division, and describes how the land (maps) of each clan overlapped the land (maps) of the other:

- (24) **Peta** *nannane* *nafrar* *ro* ***naya*** *bo.*
 peta an-na-ne na-frar ro na-ya bo
 map GIV-3PL.INAN.SPC-this PL.INAN-run LOC 3PL.AN-SPC upside
 'The maps ran over the other (maps) / the maps ran over each other.' [VYac]

The following sentence, finally, again illustrates the use of indefinite pronouns, which are best translated with the English 'some' or '(a) certain.' The two pronouns *siya* refer to inhabitants of the village Wardo. The pronouns are indefinite, because the identity of the referents is simply not at stake. The entities are just presented as 'existing':¹⁷

- (25) *Saroiya* *dorn* ***siya,***
 saroi=ya d-orn si-ya
 whale=3SG.SPC 3SG-swallow 3PL.AN-SPC
- | | | | | |
|--------------------|--------------|--------------|-----------|---------------|
| <i>siya</i> | <i>sinm</i> | <i>mónda</i> | <i>ra</i> | <i>simar.</i> |
| si-ya | s-inm | mónda | ra | si-mar |
| 3PL.AN-SPC | 3PL.AN-drink | only | until | 3PL.AN-die |
- 'The whale ate some, others drank (river water) only until they died.' [TWbt]

Another strategy for expressing singular indefiniteness is by the use of the numeral *eser*. The numeral can be used as an expressor of specific indefiniteness, as in the following example:

- (26) ***Ras*** *eser* *ido,* *mansar*
 ras eser ido man-sar
 day one THEM male-old

¹⁷ At this point it is relevant to point to the fact that several times constructions with an indefinite pronoun were translated into Indonesian by my informant as existential constructions.

<i>ero</i>	<i>mnuyanya</i>	<i>vyesusa</i>	<i>rovean.</i>
e-ro	mnu=ya=n=ya	v<y>e-susa	rovean
REL-LOC	village=3SG.SPC=SEP=3SG.SPC	<3SG>VBLZ-problem	food
'One day, an old man in the village suffered from lack of food' [YMah]			

For the expression of nonspecific indefiniteness, *eser* combines with the nonspecific singular marker *o*, as in the following example, where the speaker describes the process of he and his father making a pan. The pan is not finished yet, which accounts for the use of *esero* instead of *eser*:

(27)	<i>Nukam</i>	<i>wurn</i>	<i>esero</i>	<i>voi</i>
	<i>nu-kam</i>	<i>wurn</i>	<i>eser=o</i>	<i>voi</i>
	1DU.EX-hammer	pan	one-nonSP.SG	but
	'We were hammering (making) a pan, but ... [[YMcy]			

In addition to the words given in Table 3 and the use of the numeral *eser* 'one', the language can also use the interrogative pronouns *mansei* / *insei* 'who' and *rosai* 'what' as heads of noun phrases that have an indefinite interpretation.¹⁸ We will come back to this in the following section.

3.2.4 Interrogative pronouns

Biak uses the following three interrogative pronouns: *mansei*, *insei* and *rosai*. *Mansei* is used for questioning both male and female persons, *insei* for questioning female persons, and *rosai* for questioning other referents, including animals. These pronouns are all built up of two morphemes: the morphemes *man* 'male person', *in* 'female person' or *ro* 'non-human entity' in combination with the question word *sai* or *sei*. The question word *sai* is also attested in combination with other nouns -in the position usually taken by the pronominal article- to question the entire NP.¹⁹ This is not true, however, for *sei*, which is only found in combination with *man* and *in*. Example (28) below illustrates the use of *sai* as a question word in an NP, while (28)b shows that *sei* cannot be used as such:

(28)a	[<i>Mansern sai</i>] _{NP}	<i>rirya?</i>	
	Mansern	sai	ri-i-rya
	Lord	which	GEN.SG-3SG.PRED-ANAPH
	'Which Lord is it?' [YRee]		

¹⁸ The relation between interrogative pronouns and indefinite pronouns is universally very common (Haspelmath 1997:170-175).

¹⁹ Shortly before this publication went to the publisher, I noticed that the question word *sai* can also be linked to the preceding noun by the use of a linker *ri*, as in the following example:

Sebenarnya	maksud	ri	sai	<i>ero</i>	<i>fafyar</i>	<i>ine</i>	<i>kakui?</i>
sebenarnya	maksud	ri	sai	e-ro	fafyar	ine	kaku-i
actually	meaning	LNK	which	REL-LOC	story	3SG.SPC-this	real-3SG.SPC
'Actually which meaning is in this story really?' [MBgh].							

The linker *ri* can most probably be equated with the numeral linker *ri* discussed in 3.9. The functional difference between the use and non-use of *ri* awaits further investigation.

- b * [***Mansern sei***]_{NP} *rirya?*
 Mansern sei ri-i-rya
 Lord which GEN.SG-3SG.PRED-ANAPH
 * 'Which Lord is it?' [el]

Mansei 'male-which' and *in-sei* 'female-which' should be considered compounds, because the nouns *man* 'male person' and *in* 'female person' are not attested as independent nouns elsewhere, but only as first part of nominal compounds such as *man-is* 'male-creep' -> 'lamb', and *in-sos* 'female-sos' -> 'unmarried girl'. The compounds *mansei* 'male-which' and *insei* 'female-which' differ in structure from the almost homophonous noun phrase *man sai* 'which bird' and *in sai* 'which fish'. Compare the following examples:

(29) possible combinations of *man* 'male'
 and *in* 'female' with *sai* 'which' and *sei* 'which'

mansei 'male-which', *bird-which
man sai 'bird which', *male which
insei 'female-which', *fish-which
in sai 'fish which', *female-which'

The rest of this section presents the interrogative pronouns' distribution. As complement of a verb or preposition, the interrogative pronouns can be used *in situ*, although this is quite unusual. It was not attested in the corpus of spontaneous data, but only given as a fully acceptable utterance in elicitation, as in the following example:

- (30) *Wafrúr rosai?*
 wa-frúr rosai
 2SG-make what
 'What are you doing?' [el]

Interrogative pronouns cannot be used as overt subject of a verbal predicate, as verbal subjects cannot be focused and interrogatives have focus by definition. The following sentence, then, is ungrammatical:

- (31) * ***Mansei sra*** *yov sko?*
 mansei s-ra yov sko
 who 3PL.AN-go to 3PC
 'Who goes to the few of them?' [el]

Question-word questions are most commonly formed by the juxtaposition of two noun phrases, the first noun phrase consisting of the question word, the second being a headless relative clause. Question-word questions thus take the form of a cleft-construction, more on which can be found in section 10.3.5. Two examples are given here, the first being the grammatical version of example (31) above.

- (32) [***Mansei***]_{NP} [*vera yov skonsi?*]_{NP}
 mansei ve-ra yov sko=n=s-i
 who REL-go to 3PC=SEP=3PL.ANIM-SPC
 'Who (pl.) have gone to the few of them?' (Lit. 'Who (are the ones) that have gone to the few?') [el]

- (33) **[Rosai]_{NP}** [*waser ro karunyani?*]_{NP}
 rosai wa-ser ro karun=ya=n=i
 what 2SG-fill LOC bag=3SG.SPC=SEP=3SG.SPC
 'What have you filled into the bag?' [MTag]

The relativizer *ve-* is only used in subject relative clauses like (32) and (34). It is not used in (33) and (35), as they are object relative clauses; the verbal subjects *wa-* '2SG' in (33) and *i-* in (35) are not coreferential with the head of the noun phrase (*rosai* and *mansei*, respectively). Interrogative pronouns can also head indirect questions, as in the following examples:

- (34) *Syéwar na mansei vena sarakoni.*
 s<y>éwar na mansei ve-na sarak=o=n=i
 <3SG>seek then who REL-have bracelet-nonSP.SG =SEP=3SG.SPC
 'He tried to search out who would have a bracelet' [Mlao]

- (35) *Rwir i, insa komám*
 r<w>ir i insa ko-mám
 <3SG>let.loose 3SG CONS 1PL.INC-see

mansei ive rya fyori.
 mansei i-ve r<y>a f<y>or=i
 who 3SG-want <3SG>-go <3SG>catch=3SG.SPC
 'Let him go, so that we see who he is going to catch.' [MMii]

Finally, the interrogative pronouns are frequently used as 'free choice pronouns', again filling the head position of a relative clause, and illustrated in the following examples.²⁰ The use of the pronoun in (36) and (37) is still quite close to that of an interrogative, in the sense that the identity of the referent is not clear to the speaker:

- (36) *Na mansei efor inya ido, yave*
 na mansei e-for i=n=ya ido ya-ve
 then who REL-catch 3SG=SEP=3SG.SPC THEM 1SG-give

srar ayedya fa vyuk.
 srar aye=d-ya fa v<y>uk
 cross.sibling 1SG.POS=3SG-SPC CONS <3SG>marry
 'Then whoever will catch him, I will give my sister to marry.' [MMdz]

- (37) *Be ketua rya rosa wakofnya indo*
 be ketua rya rosa wa-kofn=ya indo
 2.SG.VBLZ chairman so what 2SG-say=3SG.SPC THEM

irya kwar.
 i-rya kwar
 3SG.PRED-ANAPH already
 'You are the chairman so what(ever) you say will be the decision.' [MBfp]

²⁰ See section 3.11 below

In (38), however, the pronoun clearly has a different function, as it refers to the content of words that have been spoken and are known to the speaker and the addressee,

- (38) *Va rosai insandya kokofn anya*
 va rosai insandya ko-kofn an-ya
 because what just 1PL.INC-say GIV-3SG.SPC

nari syos sisne mrum
 nari syos si-is-ne m-rum
 then generation 3PL.AN-PRED-this to.here-inside
 'Because what we just said, in future there will be new generations coming in (i.e. into our area.)' [VYch]

It is not clear, then, whether there is a semantic difference between *rosai* as used in (37) and (38) above and simple *ro* 'thing' as used in (39) below.

- (39) *Insape beprinta, waba rya*
 insape be-printa wa-ba rya
 then 2SG.VBLZ-order 2SG-big so

ro wakofnya nkoso i káme"
 ro wa-kofn=ya nko-so i kám
 thing 2SG-say=3SG.SPC 1PL.EX-accompany 3SG all
 'Then you give orders, you are big so whatever you say we will all follow' [MBfw]

3.2.5 Emphatic pronominals, reflexivity and reciprocity

Reflexive pronouns are pronouns that are interpreted as coreferential with another nominal of the sentence or clause in which they occur (Schachter 1985:27). Following this definition, the Biak language has no type of pronoun that is used exclusively for this purpose. Instead, it uses either the bare free pronoun or an emphatic pronoun.

An example in which the free pronoun is used as a reflexive is given with (40) below. It is the linguistic or metalinguistic context that disambiguates between the reading as a reflexive or as an anaphoric pronoun. Here, the pronoun *i* is used reflexively and coreferential with the subject infix <y> in *kyikr*.

- (40) *Kyikr i ri karui nanya bori.*
 k<y>ikr i ri karui an-ya bo-ri
 <3SG>shake 3SG LOC stone GIV-3SG.SPC upside- POS.3SG
 'It shook itself on top of the stone.' [MSbu]

The reflexive reading is often forced by use of the emphatic *mankun(d)*.²¹ The free pronoun cliticizes to the emphatic *mankun(d)*, where *mankund* is used before the singular pronouns and *mankun* before the plural pronouns. The resulting forms are given in the following table:

²¹ As König (2001a: 758) remarks, when the language has two strategies for reflexivization, 'the more complex strategy tends to be used for the more remarkable (i.e. conventionally other-directed) situation; the less complex strategy tends to be used for inherently reflexive verbs and for conventionally non-other directed situations.' In line with this, in Biak we find the simple pronoun used reflexively with verbs like *kikr* in (40), which is inherently reflexive, but the emphatic pronominal in case the verb is not inherently self directed, like *kun* in

Table 5 Emphatic pronominals

1sg	<i>mankund=aya</i>	(I) myself
2sg	<i>mankund=aw</i>	(you) yourself
3sg	<i>mankund=i</i>	(he/she/it) him/her/itself
1du.inc	<i>mankun=ku</i>	(we two) ourselves
1du.exc	<i>mankun=nu</i>	(we two) ourselves
2du	<i>mankun=mu</i>	(you two) yourselves
3du	<i>mankun=su</i>	(they two) themselves
3pc	<i>mankun=sko</i>	(they three) themselves
1pl.inc	<i>mankun=ko</i>	(we) ourselves / those who belong to our selves
1pl.exc	<i>mankun=inko</i>	(we) ourselves / those who belong to our selves
2pl	<i>mankun=mko</i>	(you) yourselves / those who belong to your selves
3pl.an	<i>mankun=si/=sya²²</i>	(they) themselves / those who belong to their selves
3pl.inan	<i>mankun=na</i>	(they) themselves / those who belong to their selves

The emphatic *mankun* can be segmented into the segments *man* 'male person' and *kun*, which cannot be related to any other morpheme in the language. The pronoun *mankun* can be used for both male and female entities, while the pronoun *vinkun*, consisting of *vin* 'female person' and *kun* can be used for reference to female humans. The latter form has only been attested in elicitation.

Although *mankun* is usually found in combination with a following pronoun as in Table 5 above, it does not seem to form one syntactic word with it. The main reason for not considering the sequences as syntactic words is the possibility to break up the sequence. Although the corpus contains no examples of the sequence being broken up, my consultants agreed upon the acceptability of the following clause, where an adverb intervenes between *mankun* and a following pronoun:

- (41) *Wevr* ***mankun*** *mónda* ***aw***.
 w-evr mankun mónda aw
 2SG-praise self only 2SG
 'You just praise yourself.' [el]

Examples of *mankun(d)* plus pronoun having a reflexive reading are given in sentence (42) and (43). In both cases, the pronoun *mankundi* is coreferential with the infix *-y-* '3SG' of the verb.

- (42) *Ifrúr* *for* *vebaya* *fa*,
 i-frúr for ve-ba=ya fa
 3SG-make fire REL-big=3SG.SPC CONS

(42).

²² The form *sya* is attested only once. The use of *=sya* suggests that *mankun* + pronoun is viewed as a normal noun phrase, ending in the clause-medial variant of the pronominal article (cf. Table 1 above). Usually, however, the forms can be analyzed as the sequence of *mankun* + pronoun, and not as *mankun* + pronominal article. The same holds for *vinkun* used for females (see the discussion).

vyuk *i* *kunu* ***mankundi.***²³
 v<y>uk i kun=u mankund=i
 <3SG>give 3SG burn=U self=3SG
 'He made a big fire so that he used it to burn himself with it.' [MMiw]

- (43) *Fyarwe* ***mankundi.***
 f<y>arwe mankund=i
 <3SG>change self=3SG
 'He changed himself.' [MMji]

The emphatic pronominals given in Table 5 above are also used in non-reflexive context. In that case, the emphatic pronominal emphasizes the identity of the referent, corresponding to the English glosses 'I myself, you yourself, he himself' etc. In addition, the pronominals can also refer to the people who 'belong to' the referent of the pronoun, roughly corresponding to the English 'my selves (kin, friends), your selves, his selves (etc.)'. The following sentences illustrate both uses:

- (44) ***Mankunsi*** *san* ***mankunsi.***
 mankun=si s-an mankun=si
 self=3PL.ANIM 3PL.AN-eat self=3PL.ANIM
 'They ate each other.' (Lit. 'They themselves ate (the ones belonging to) themselves.' [MBdc])

- (45) *Noseni* *i* *kako* ***mankunsi*** *svov* *i*
 Noseni i kako mankun=si s-vov i
 Noseni 3SG too self= 3PL.ANIM 3.PL.AN-sell 3SG
 'Noseni he too, his own people they sold him'. [YRbc]

Interestingly, the emphatic *mankun* (and *vinkun*) can also modify the pronominal affixes found on the verb or possessive (discussed in 3.2.6 below). As such it need not even directly precede the verb. Examples are given below. In (46), the emphatic pronoun modifies the verbal pronominal infix <y> '3SG', while in (47) it modifies the pronominal prefix *su-*. Both the predicate *vyuk* and the possessive *suve-* introduce a relative clause, more on which can be found in 10.3.5.

- (46) ***Mankun*** ***bantuan*** *vyuk* *ve* *mkondiri*
 mankun bantuan v<y>uk ve mko=n=ri-i-ri
 self help <3SG>give to 2PL=SEP=GEN.SG-3SG.PRED-ANAPH
 'It is help that he himself gave to you.' [VYga]

- (47) ***Mankun*** *marisn* *suvediri.*
 mankun marisn su-ve=d-i-ri
 self joy 3DU-POS=3SG-3SG.PRED-ANAPH
 'It is up to the two themselves.' (Lit. 'It is the wish of the two themselves') [BVds]

The emphatic *mankun* only seems to combine with pronouns, not with full NP's. The pronominals as a whole, however, can be used in apposition to another noun phrase. Thus, in

²³ For the use of *vuk* 'give' in relative constructions, cf. 10.12.

the following example, the proper name forms an independent noun phrase, and is followed by an emphatic pronominal in apposition:

- (48) Mansern mankundaw **bemaf**²⁴ sasar
 Manseren mankund=aw be-maf sasar
 Lord self=2SG 2SG.VBLZ-forgive sin
- varvor inko-ve=na (...)
 varvor inko-ve=na
 badness 1PL.EX-POS=3PL.INAN.SPC
 'Lord, you yourself forgive our sin and badness (...)' [GDar]

Now that the expression of reflexivity has been discussed, it is time to have a closer look at the notion of reciprocity. Just like reflexivity, reciprocity can also be expressed by the use of the bare free pronoun, as in the following example:

- (49) *Suveávavn* *su.*
 su-ve-ávavn su
 3DU-VBLZ-on.friendly.terms 3DU
 'The two love each other.' [FYac]

Reciprocity is more explicitly expressed, however, by the verbal suffix *-yáe*. The marker directly follows the verbal stem. It was attested 16 times in the collected data, and in 15 cases it combined with a transitive predicate, which thus received a reciprocal interpretation, as in the following examples:

- (50) *Sfaduruyáe* *si.*
 s-faduru-yáe si
 3PL.AN-care-RECIPR 3PL.ANIM
 'They took care of each other.' [ALae]
- (51) *Sifnovkyáe* *si.*
 si-fnovk-yáe si
 3PL.AN-help-RECIPR 3PL.ANIM
 'They helped each other.' [ALae]
- (52) *Inkonayáe* *inko.*
 inko-na-yáe inko
 1PL.EX-have-RECIPR 1.PL.EX
 'We are each other's possession.' [ALau]²⁵

²⁴ *maf* is a slightly adapted loan from local Malay *maaf*.

²⁵ This sentence is part of a speech in which the informant tells about two people marrying and the problems over the division of the land that may arise. After they have married, the families 'have each other' in the sense that the husband's family 'has' the wife and some land from her family, while the wife's family 'has' the husband because he works on their land.

- (53) *Korokyáe* *ko.*
 ko-rok-yáe ko
 1PL.INC-dispute.with-RECIPR 1PL.IN
 'We dispute with each other.' [DAfo]

I found one example of an intransitively used predicate combined with *-yáe*, in which case the English translation should be something like 'with each other' or 'together':

- (54) *Mkora ma koveaturyáe.*
 mko-ra ma ko-ve-atur-yáe
 2PL-go to.here 1PL.INC-VBLZ-arrange-RECIPR
 'You come here and we arrange it together.' [DAca]

That *-yáe* is a verbal suffix is clear from the fact that nothing can intervene between the verbal root and the modifier *yáe*, as is illustrated by the ungrammaticality of (55):

- (55) * *Smun ker yáe si.*
 s-mun ker yáe si
 3PL.AN-kill continually RECIPR 3PL.ANIM
 * 'They continually kill each other.' [el]

The following example is a further proof that *yáe* is a verbal suffix, modifying the verb, and not the following pronoun. The adverb *ker*, modifying the verb as a whole, intervenes between *yáe* and the pronoun, which shows that the suffix *yáe* and the pronoun *si* cannot be part of the same phrase:

- b *[Smunyáe]_v ker si.*
 s-mun-yáe ker si
 3PL.AN-kill-RECIPR continually 3PL.ANIM
 'They continually kill each other.' [el]

3.2.6 Possessive pronominals

The basic possessive pronominals are given in Table 6. The complex forms given in this table can function pronominally, but are usually found in adnominal position.

Table 6 Basic possessive pronominals

Possessed-> Possessor:	SG	DU	TR	PL.AN	PL.INAN
1SG	(a)ye=d-i/=d-ya ²⁶	(a)ye=su-ya/-i	(a)ye=sko-ya/-i	(a)ye=s-ya/-i	(a)ye=na
2SG	be=d-i/=d-ya	be-=su-ya/-i	be=sko-ya/-i	be=s-ya/-i	be=na
3SG	v<y>e=d-i/=d-ya	v<y>e=su-ya/-i	v<y>e =sko-ya/-i	v<y>e =s-ya/-i	v<y>e =na
1DU.INC	ku-ve=d-i/=d-ya	ku-ve=su-ya/-i	ku-ve=sko-ya/-i	ku-ve=s-ya/-i	ku-ve=na
1DU.EXC	nu-ve=d-i/=d-ya	nu-ve=su-ya/-i	nu-ve=sko-ya/-i	nu-ve=s-ya/-i	nu-ve=na
2DU	mu-ve=d-i/=d-ya	mu-ve=su-ya/-i	mu-ve=sko-ya/-i	mu-ve=s-ya/-i	mu-ve=na
3DU	su-ve=d-i/=d-ya	su-ve=su-ya/-i	su-ve=sko-ya/-i	su-ve=s-ya/-i	su-ve=na
3PC	ske-ve=d-i/=d-ya	ske-ve=su-ya/-i	ske-ve=sko-ya/-i	ske-ve=s-ya/-i	ske-ve=na
1PL.INC	ko-ve=d-i/=d-ya	ko-ve=su-ya/-i	ko-ve=sko-ya/-i	ko-ve=s-ya/-i	ko-ve=na
1PL.EXC	(i)nko-ve=d-i/=d-ya	(i)nko-ve=su-ya/-i	(i)nko-ve=sko-ya/-i	(i)nko-ve=s-ya/-i	(i)nko-ve=na
2PL	mko-ve=d-i/=d-ya	mko-ve=su-ya/-i	mko-ve=sko-ya/-i	mko-ve=s-ya/-i	mko-ve=na
3PL.AN	se=d-i/=d-ya	se=su-ya/-i	se=sko-ya/-i	se=s-ya/-i	se=na
3PL.INAN	nbe=d-i/d-ya	nbe=su-ya/-i	nbe=sko-ya/-i	nbe=s-ya/-i	nbe=na

In the table above, the variants ending in =i are used exclusively in prepausal position, while the variant on =ya is used in other positions too, analogous to the form of the specificity marker in other noun phrases (cf. 3.2.1). The first singular possessive has two variants; the consonant-initial *yedya* (etc) is used after vowels, while the vowel-initial *ayedya* (etc.) is used after consonants and after pauses.

Each of the pronominals consists of two parts. The first part is a form of the possessive marker *ve*, inflected for number and person of the possessor. The second part is the pronominal article found at the end of most noun phrases, the only difference being that the 3SG article is =d-i~d-ya '3SG-SPC' instead of =i~ya '3SG.SPC'. The inflection on the possessive marker indicates person, number and gender of the possessor, while the article indicates number and gender of the possessed. The possessive marker is inflected according to the pattern of the verbalizer *ve* or the verb *ve* 'give' (cf. Table 19 in section 4.3.1.5), except for the first person singular, which is *aye-* instead of *yave*. The same convergence of the verbalizer and the possessive marker is seen in Mpur *bi* (Odé 2002: 56,62).²⁷

The vowel *e* of the possessive marker is elided when directly followed by the marker of givenness *an*. This is shown in the following table. The forms for trial and plural possessed are formed by analogy to the forms given in Table 6

²⁶ The Numfor dialect as described by Van Hasselt (1905) has *vyeda* or *byeda* instead of *vyedya*.

²⁷ *Bi* is also used as part of possessive constructions in Abun (Berry & Berry 1999:78).

Table 7 Possessive pronominals combined with marker of givenness *an* with singular / dual possessed

Possessed-> Possessor:	SG	DU
1SG	<i>ay=an-ya/-i</i>	<i>ay=an-su-i/-ya</i>
2SG	<i>b=an-ya/-i</i>	<i>b=an-su-i/-ya</i>
3SG	<i>v-y=an-ya/-i</i>	<i>v<y>=an-ya/-i</i>
1DU.INC	<i>ku-v=an-ya/-i</i>	<i>ku-v=an-ya/-i</i>
1DU.EXC	<i>nu-v=an-ya/-i</i>	<i>nu-v=an-su-i/-ya</i>
2DU	<i>mu-v=an-ya/-i</i>	<i>mu-v=an-su-i/-ya</i>
3DU	<i>su-v=an-ya/-i</i>	<i>su-v=an-su-i/-ya</i>
1TR	<i>sko-v- an=i/=ya</i>	<i>sko-v=an-su-i/-ya</i>
1PL.INC	<i>ko-v=an-ya/-i</i>	<i>ko-v=an-su-i/-ya</i>
1pl.exc	<i>(i)nko-v=an-ya/-i</i>	<i>(i)nko-v=an-su-i/-ya</i>
2pl	<i>mko-v=an-ya/-i</i>	<i>mko-v=an-su-i/-ya</i>
3pl.an	<i>s=an-ya/-i</i>	<i>s=an-su-i/-ya</i>
3pl.inan	<i>nb=an-ya/-i</i>	<i>nb=an-su-i/-ya</i>

As stated above, whereas the forms given in Table 6 and Table 7 can be used pronominally they are usually found in adnominal position. The pronominal use is illustrated in (56) and (57).

- (56) *Wáw dún vyedyá randa.*
wáw d-ún v<y>e=d-ya rar-ra
 turtle 3SG-take <3SG>POS=3SG-SPC to.o.there-sea
 'The turtle took his one (his tree) seawards.' [WRac]

- (57) *Vyedyá vyark rao ibur ker*
v<y>e=d-ya v<y>ark rao i-bur ker
 <3SG>POS=3SG-SPC <3SG>lie until 3SG-leave from

ro Sorong ma ido, insape yavuk i ra.
ro Sorong ma ido insape ya-vuk i ra
 LOC Sorong to.here THEM then 1SG-give 3SG to.o.there
 'The thing of hers (a letter sent to her) stayed until she came (back) from Sorong, then I gave it away (to her).' [YWaz]

The adnominal use, on the other hand, is exemplified in (58) through (60):

- (58) [*Srar vyedyá*]_{NP} *fyarvuk.*
srar v<y>e=d-ya f<y>arvuk
 cross.sibling <3SG>POS=3SG-SPC <3SG>marry
 'His sister got married.' [Bmaq]

- (59) *Desa kmari [rum skovedya]*_{NP}
desa kma-r=i rum sko-ve=d-ya
 village father-POS.3SG=3SG house 3PC-POS=3SG-SPC

ryo dipurwu.
 r<y>o di-pur-wu
 <3SG>LOC PLACE-back-over.there
 'The house of the village's father and his household is at the back
 over there.'²⁸ [GBam]

- (60) *Idwarku mkamor vyesuya.*
 i-dwark=u mka-mor v<y>e=su-ya
 3SG-block=U eye-bole <3SG>POS=3DU-SPC
 'He shielded off both his eyes' [FYbq]

The forms given in Table 6 and Table 7 above can (possibly in combination with a noun) be analyzed as noun phrases containing a relative clause. This is clear from comparing (A) below with the relative phrase given in (B). For the adnominal phrases, the possessed nouns, like *srar* in A below, function as the head of the relative clause, while pronominal possessive phrases as in (56) and (57) above can be analyzed as headless relative clauses.

- (A) *Srar vyesya*
 [srar [v<y>e]_{relative clause=S-ya}]_{NP}
 cross.sibling <3SG>POS=3PL.AN-SPC
 'His / her cross-siblings' [el]
- (B) *Srar fyorskoya*
 [srar [f<y>or]_{relative clause =sko-ya}]_{NP}
 cross.sibling <3SG>clasp=3PC-SPC
 'The cross-siblings that (s)he has embraced.' [el]

The analysis of the forms as (part of) noun phrases rather than syntactic words suggests that the syntactic bond between the parts may be looser than in syntactic words. This is indeed the case, as the inflected possessive marker *ve* and the pronominal article can be separated by an intervening proper noun or relative clause. Example (61) below illustrates the interruption of a proper noun (*Padwankan*), while (62) shows a relative clause breaking up the sequence.

- (61) [*Napirman vye Padawankani*]_{NP}.
 napirman v<y>e Padawankan=i
 cousin <3SG>POS Padawankan=3SG²⁹
 'His cousin Padawankan.' [MSie]
- (62) [*Srar vye [vefan]_{relative clause} ine*]_{NP}.
 srar v<y>e ve-fan i-ne
 cross.sibling <3SG>-POS REL-feed 3SG.SPC-this
 'This sister of his who had fed (the pig).' [MShe]

Note that the complex pronominal article *ine* in (62) has its usual form, and not the form *dine*, which it takes when directly following the possessive marker, as in (63) below:

²⁸ Note the seeming contradiction between the singular NP *desa kmari* and the paucal possessor in *skovedya*. The use of a paucal here, however, is fully grammatical and refers to the *desa kmari* and his household.

²⁹ As set out in 3.3.3.1, proper nouns are not followed by a specificity marker, but optionally followed by a pronoun.

- (63) *Srar* *vye* *dine.*
 srar v<y>e d-i-ne
 cross.sibling <3SG>-POS 3SG-SPC-this
 'This sister of his' [el]

3.2.7 Partitive pronouns: *min*

The noun *min* is used in the sense of 'member of the (same) group'. Such is the case in the examples (64) and (65) below.³⁰

- (64) *Isrow* *min* *vyedi.*
 i-srow min v<y>e=d-i
 3SG- meet member <3SG>POS=3SG-SPC
 'He met his friend.' [MIaq]

- (65) *Vyuk* *snari* *fa* *insape,*
 v<y>uk sna-r=i fa insape
 <3SG>marry mother-POS.SG=3SG CONS then

kyapar *fadwero* *mnu* *nanine*
 k<y>apar fadwer=o mnu an-i-ne
 <3SG>give.birth.to change=O village GIV-3SG.SPC-this

fa, *vyefadwero*
 fa v<y>e-fadwer=o
 CONS <3SG>VBLZ-change=O

min *ebur* *ansiwara.*
 min e-bur an-s-i-wa-ra
 member REL-leave GIV-3PL.AN-SPC-over.there-to.o.there
 'He had sexual intercourse with his mother, so that she gave birth to replace (the inhabitants of) this village, to replace those village members over there who had left.'
 [KOhd]

When the noun is directly preceded by one of the dual or trial free pronouns, and –as usual– closed off by a pronominal article, it functions as what can be called a partitive pronoun. The free pronouns select the total group, while the article selects the number of entities that are selected from this total group. The possible combinations are given in Table 8, in which *min* is followed by a pronominal article, which may be more complex than indicated there. Note that the third person plural has the form *su-* instead of the usual 3PL.AN *si*:

³⁰ It is also found in the compound forms *vramin* 'arm' and *wemin* 'leg', cf. section 3.3.2.1.1 and 6.2.1.1 on bodyparts.

Table 8 Combinations of free pronouns followed by *min*

	~free pron-	<i>min</i>	determiner	meaning
1DU.INC	<i>ku-</i>	<i>Min</i>	= <i>ya~i</i>	one of the two of us
1DU.EXC	<i>nu</i>	<i>min</i>	= <i>ya~i</i>	one of the two of us
2DU	<i>mu-</i>	<i>min</i>	= <i>ya~i</i>	one of the two of you
3DU	<i>su-</i>	<i>min</i>	= <i>ya~i</i>	one of the two of them
3PC	<i>sko-</i>	<i>min</i>	= <i>ya~i</i>	one of the few of them
	<i>sko-</i>	<i>min</i>	= <i>su-ya~-i</i>	two of the few of them
1PL.INC	<i>ko-</i>	<i>min</i>	= <i>ya~i</i>	one of us
	<i>ko-</i>	<i>min</i>	= <i>su-ya~-i</i>	two of us
	<i>ko-</i>	<i>min</i>	= <i>sko-ya~-i</i>	three of us
	<i>ko-</i>	<i>min</i>	= <i>s-ya~-i</i>	some of us
1PL.EXC	<i>(i)nko-</i>	<i>min</i>	= <i>ya~-i</i>	one of us
	<i>(i)nko-</i>	<i>min</i>	= <i>su-ya~-i</i>	two of us
	<i>(i)nko-</i>	<i>min</i>	= <i>sko-ya~-i</i>	three of us
	<i>(i)nko-</i>	<i>min</i>	= <i>s-ya~-i</i>	some of us
2PL	<i>mko-</i>	<i>min</i>	= <i>ya~-i</i>	one of the many of you
	<i>mko-</i>	<i>min</i>	= <i>su-ya~-i</i>	two of us
	<i>mko-</i>	<i>min</i>	= <i>sko-ya~-i</i>	three of us
	<i>mko-</i>	<i>min</i>	= <i>s-ya~-i</i>	some of us
3PL	<i>su-</i>	<i>min</i>	= <i>ya~-i</i>	one of them
	<i>su-</i>	<i>min</i>	= <i>su-ya~-i</i>	two of them
	<i>su-</i>	<i>min</i>	= <i>sko-ya~-i</i>	three of them
	<i>su-</i>	<i>min</i>	= <i>sya~-i</i>	some of them

Some examples are given in (66) through (68).

- (66) **[Inkominsya]_{NP}** **sebiasa** *sup* *va.*
 inko-min=s-ya se-biasa *sup* *va*
 1PL.EX-member=3PL.AN-SPC 3PL.AN.VBLZ-used.to *land* *not*
 'Some of us were not used to the land.' [GSbn]

The forms are typically used to contrast one or more members of a group with the rest, so that the group is perceived of as consisting of two parts. This is illustrated in the following two sentences. Sentence (67) describes a scene where a boy and his dog have just found their run-away frog among a group of frogs. The boy has just picked up his frog and the boy and his frog wave to the other frogs. Note that the pronominal article here is more complex than in the table above, in that it also contains a marker of givenness *an*:

- (67) *Sunow* *suvrasna* *ve* [*mankroder* *sumin*
su-now *su-vra-s-na* *ve* *mankroder* *su-min*
 3DU-lift 3DU-hand- PL.AN-PL.INAN to frog 3DU-member
ansya]_{NP}.
 an-s-ya
 GIV-3PL.AN-SPC
 'The two lifted their hands (i.e. waved) to the other frogs.' [FPep]

The use of *suminya~ sumini* in (68) is a common way to contrast one of two to the other:

- (68) *Suminya* *vyuku* *royo*
 su-min=ya v<y>uk=u ro=yo
 3DU-member =3SG.SPC <3SG>give=U thing=SG.nonSP

ve sumini.
 ve su-min=i
 to 3DU-member=3SG.SPC
 'The one is giving something to the other' [S_T_137].

Note that the forms can be used both pronominally, as in (66) and (68) above, or adnominally, as in (67). As we have seen for the possessive pronominals above, the forms are not inseparable. The noun *min* and the pronominal article can be broken up by a relative clause, as in (69) below:

- (69) *Skomin* *vero* *varpur* *iwanya.*
 sko-min ve-ro var-pur i-wa=n=ya
 3PC-member REL-LOC side-back 3SG.SPC-over.there=SEP=3SG.SPC
 'The one of the three of them that was at the back over there' [Mbay]

The syntactic relation between the pronominal article and the preceding *min*, then, is the same as that between a random other noun and the following article. The pronominal articles in Table 8, then, should be considered clitics. As for the sequence of the pronoun and the following *min*, the corpus contains no examples where this sequence is broken up.

3.3 Nouns

The category of nouns in Biak is defined by predominantly syntactic criteria. As a further criterion, all nouns can be classified according to the subclasses given in section 3.3.3.

3.3.1 Definition

As stated just above, nouns are best defined by syntactic criteria. These criteria are the following. In the first place, nouns can appear as (head of an) argument of a predicate. In (70), *harimauya* is subject of a verbal clause, while in (71) *rofanfan* is an object.

- (70) *Ras oso* *harimauya* *dors* *ro* *apyadwari.*
 ras oso harimau=ya d-ors ro apyadwar=i
 day INDEF.SG tiger=3SG.SPC 3SG-stand LOC cage=3SG.SPC
 'One day, a tiger stood in a cage' [PMab]

- (71) *Imarishn* *fyan* *rofanfan.*
 i-marishn f<y>an rofanfan
 3SG-enjoy <3SG>feed domestic.animal
 'He liked to take care of domestic animals' [FAaa]

Secondly, nouns can appear as (head of the) complement of a preposition. An example is the last word of example (70), *apyadwari*, which is the complement of the preposition *ro*. Another example is found in the following sentence, where *mnu* is the head of the noun phrase *mnu ine*, which is the complement of *ro*.

- (72) *Skovark* *ro* *mnu* *ine*.
 sko-vark ro mnu i-ne
 3PC-lie LOC village 3SG.SPC-this
 'The three live in this village.' [TWch]

Thirdly, nouns can function as the heads of a noun phrase, closed off by a determiner. The determiner expresses number, person and possibly gender of the head noun. In addition, the determiner may contain several (discourse) deictic and spatial elements, all of which will be discussed in Chapter 5 on noun phrases and Chapter 9 on space. Examples of noun phrases are *mnu ine* 'village 3SG.SPC-this' with the determiner *i-ne* '3SG.SPC-this' in (72), or *apyadwar=i* 'cage=3SG.SPC' in (70) with determiner *=i* '3SG.SPC'.

Although the syntactic properties above are in principle enough to mark nouns off from verbs, there is one morphological property of verbs that makes the difference between nouns and verbs even clearer: only a verb can be combined with pronominal subject prefixes, expressing person, number and gender of the subject. Moreover, verbs *have* to be combined with pronominal subject prefixes, while this is impossible for nouns. An example of a prefixed verb is given with *sko-vark* '3PC-lie' in (72).

Now that the main defining criteria for nouns have been given, it is time to have a closer look at their morphology. This will be done in the following section.

3.3.2 Derivation

The Biak language has two main strategies of noun formation. On the one hand, nouns can be formed by reduplication of verbs. On the other hand, the language has different types of nominal compounding. While the nominalization of verbs is discussed in Chapter 7 on reduplication, this section focuses on nominal compounding.

3.3.2.1 Compounding

A compound can be defined as a combination of lexemes that form a larger word. This section gives different types of compounding and discusses their morphosyntactic and semantic properties.

Formally, virtually all nominal compounds conform to one of the following schemata:

- (73) Subschemata of compounding resulting in a noun
- (1) [N X]_N, X = N, V, or not attested as an independent lexeme (but also not an affix)
- (2) [N ve V]_N
- (3) [N ve N]_N

When uttered in isolation, for compounds belonging to group (1) the main accent is on the second member (unless the first member contains a long vowel as in *wós Vyak* 'language Biak'). The rest of this section discusses the various schemata one by one. It will become clear that Biak nouns can be left-headed or right-headed, while a number of nouns should be considered headless or exocentric.

3.3.2.1.1 Left-headed and right-headed compounds of the form [N X]_N

The group of N-X compounds under discussion here is the most frequent of all nominal compounds. This section discusses both left-headed and right-headed N-X compounds. Morphologically, the head of a compound is that part of the word that determines its lexical category. The head of a compound noun, then, must be a noun. Semantically, the non-head part of the compounds modifies the head. The left-headed compounds are given first, while the second part of this section focuses on right-headed compounds.

Most left-headed N-X compounds consist of a noun followed by a bound morpheme, which is usually not attested as an independent lexeme, but only in combination with the noun with which it forms a compound. N-N compounds and N-V compounds are also attested, however. Four larger subgroups of left-headed N-X compounds are those headed by *man* 'bird', *man* 'male person', *ín* 'fish' or *in* 'female person.' They will be illustrated below.

Some of the left-headed N-N compounds are the following. The second noun forms a modification or specification of the first. All of the words in the second column are also attested as independent words:

(74) Left-headed [N-N]_N compounds

<i>rum</i> 'house'	+	<i>os</i> 'part making up a sago-leave-roof'	->	<i>rum os</i> 'house with roof from sago leaves'
<i>korwar</i> 'ancestor statue'	+	<i>brawn</i> 'gold'	->	<i>korwar brawn</i> 'golden ancestor statue'
<i>bén</i> 'pig'	+	<i>bín</i>	->	<i>bén bín</i> 'female pig'
<i>wós</i> 'word'	+	<i>Vyak</i> 'Biak'	->	<i>wós Vyak</i> 'Biak language'
<i>myós</i> 'island'	+	<i>Vyak</i> 'Biak'	->	<i>myós Vyak</i> 'Biak island'
<i>mnu</i> 'village'	+	<i>Wardo</i> 'Wardo'	->	<i>mnu Wardo</i> 'village Wardo'

The following survey lists some of the N-V compounds. Note that *kaker*, *saser* and *dasdisn* are reduplicated forms, which can also function as nouns (cf. section 7.4). Again, the right part of the compound modifies the first part:

(75) Left-headed [N-V]_N compounds

<i>ro</i> 'thing'	+	<i>fan</i> 'feed'	->	<i>rofan</i> 'dog'
<i>rum</i> 'house'	+	<i>farkor</i> 'learn'	->	<i>runfarkor</i> 'school'
<i>ro</i> 'thing'	+	<i>kaker</i> 'plant'	->	<i>rokaker</i> '(planted) plant / tree'
<i>ro</i> 'thing'	+	<i>saser</i> 'hold'	->	<i>rosaser</i> '(small) container'
<i>man</i> 'male person'	+	<i>is</i> 'creep'	->	<i>manis</i> 'cripple person'
<i>man</i> 'male person'	+	<i>vri</i> 'angry'	->	<i>mambri</i> 'hero'
<i>man</i> 'male person'	+	<i>dasdisn</i> 'sing'	->	<i>mandasdisen</i> 'singer'
<i>man</i> 'bird-like entity'	+	<i>fakwak</i> 'take.care.of'	->	<i>manfakwak</i> 'animal taken care of'
<i>man</i> 'male'	+	<i>sren</i> 'pure'	->	<i>mans(e)r(e)n</i> ³¹

As just mentioned, many left-headed N-X compounds are headed by *man* 'male-person', *man* 'bird (-like entity)', *in* 'female-person or *ín* fish (-like entity).' The subschema of left-headed compounds headed by *man* is given in (76), and is followed by a survey of compounds serving as an illustration:

³¹ This form may have arisen from *man-e-sren* 'male.person-REL-pure' by metathesis of *e* and *s*. In present Biak, it is found as *manseren*, *mansern*, and *mansren*.

(76) Left-headed compound nouns with *man* 'male' or *man* 'bird' as their head

[[*man*]_N X] 'male (-like entity)' or 'bird (-like entity) of the type X'

man 'bird(-like)' / *man* 'male'

+ <i>sár</i>	->	<i>mansár</i> 'old man'	+ <i>croder</i>	->	<i>mankroder</i> 'frog'
+ <i>fun</i>	->	<i>manfun</i> 'honored man'	+ <i>kerer</i>	->	<i>mankerer</i> 'cricket'
+ <i>bikin</i>	->	<i>mambikin</i> 'brother in law'	+ <i>kampinarar</i>	->	<i>mankampinarar</i> '<k.o. fish (, which can "fly")>'
+ <i>sei</i>	->	<i>mansei</i> 'who'	+ <i>yenf</i>	->	'<k.o.fish >'
+ <i>kun</i>	->	<i>mankun</i> 'self'			
			+ <i>karmomn</i>	->	<i>mankarmomn</i> 'iron'
+ <i>anwir</i>	->	<i>mananwir</i> 'village chief'	+ <i>rep</i> 'cloud'	->	<i>mandep</i> 'cloud'
+ <i>wen</i>	->	<i>manwen</i> 'ghost'	+ <i>dyaw</i>	->	<i>mandyaw</i> '<k.o.canoe with double outrigger>'
			+ <i>susú</i> 'withdraw'	->	<i>mansusú</i> '<type of canoe that can move for-and backwards>'
+ <i>bívi</i>	->	<i>mambívi</i> 'owl'	+ <i>sawándun</i>	->	<i>mansawándun</i> 'seastar'
+ <i>sórom</i>	->	<i>mansórom</i> 'heron'	+ <i>sikápos</i>	->	<i>mansikápos</i> '<k.o.tree>'
+ <i>koko</i>	->	<i>mankoko</i> 'chicken'	+ <i>samsom</i>	->	<i>mansamsom</i> '<k.o. of sea-plant>'
+ <i>sivin</i>	->	<i>mansivin</i> 'quail'	+ <i>swar</i> 'love'	->	<i>manswar</i> 'cassowary'

In the list above, only those morphemes that are attested as independent lexeme are given their own gloss (like *swar* 'love' and *rep* 'cloud'). All other fillers of X are bound morphemes, which are not attested as an independent morpheme. Because the rich semantic content of these morphemes makes them very much like lexemes, the nouns formed by means of these morphemes are very much like compounds. The nouns further down the list illustrate how the notions bird-like and male-like have been extended to cover other animals, plants and even inanimate entities like clouds and iron. Here is the subschema and a non-exhaustive list of compounds headed by *in*, the first five of which stand in a paradigmatic relation to compounds headed by *man* 'male':

(77) Left-headed compound nouns with *in* as their head

[[*in*]_N X] 'female (-like entity) or fish (-like entity) of the type X'³²

in 'bird(-like), female'

+ <i>sár</i>	->	<i>insár</i> 'old woman'	+ <i>arar</i>	->	<i>inarar</i> '<k.o.fish>'
+ <i>fun</i>	->	<i>infun</i> 'honored woman'	+ <i>sis</i>	->	<i>insis</i> '<k.o.fish>'
+ <i>bikin</i>	->	<i>imbikin</i> 'sister in law'	+ <i>nows</i>	->	<i>innows</i> '<k.o.fish>'
+ <i>sei</i>	->	<i>insei</i> 'who (female)'	+ <i>dwar</i>	->	<i>indwar</i> '<k.o.fish>'
+ <i>kun</i>	->	<i>inkun</i> 'self (female)'	+ <i>sark</i>	->	<i>insark</i> '<k.o.fish>'
+ <i>kbor</i>	->	<i>inkbor</i> 'female adolescent' ³³	+ <i>dón</i>	->	<i>indón</i> '<k.o.fish>'
+ <i>sos</i>	->	<i>insos</i> 'young woman'	+ <i>dadwai</i>	->	<i>indadwai</i> '<k.o.fish>'
+ <i>ai</i>	->	<i>inai</i> 'girl, daughter'	+ <i>máwa</i>	->	<i>inmawa</i> '(group of) small fishes'
			+ <i>kainum</i>	->	<i>inkainum</i> '<k.o. snail>'
			+ <i>byef</i>	->	<i>imbyef</i> 'banana'
			+ <i>án</i>	->	<i>inán</i> 'betel vine'

The rest of this section pays attention to right-headed compound nouns. As the head determines the lexical category of the noun, the great majority of right-headed *N-X* compounds are formed by *N-N* compounds. Only in a few cases is the *X*-position filled by a morpheme not attested as an independent noun.

Semantically, the group is quite homogeneous, in that virtually all right-headed *N-X* compounds *X* are part of *N1* or product of *N1*:

(78) Right-headed [*NN*]_N compounds

[[*NI*]_N N2]N N2 is part of *N1* or product of *N1*.

<i>randip</i> 'pig'	+ <i>vukór</i> 'head'	->	<i>randip vukór</i> 'pig head'
<i>wáw</i> 'turtle'	+ <i>bei</i> 'shell'	->	<i>wáwbei</i> 'turtle shell'
<i>vrapin</i> 'finger'	+ <i>bei</i> 'shell'	->	<i>vrapimbei</i> 'finger nail'
<i>man</i> 'bird'	+ <i>pnór</i> 'egg'	->	<i>mampnór</i> 'bird's egg'
<i>ai</i> 'tree'	+ <i>fyór</i> 'piece'	->	<i>aifyór</i> 'piece of wood'
<i>ai</i> 'tree'	+ <i>snáw</i> 'branch'	->	<i>aisnáw</i> 'tree branch'
<i>ai</i> 'tree'	+ <i>bakn</i> 'trunk'	->	<i>aibakn</i> 'tree trunk'

It is important to distinguish these compounds from possessive constructions. As will be explained in Chapter 6, possessive constructions are formed by the combination of two noun phrases, both closed off with a determiner (except in case the possessor is a proper noun). This difference in form corresponds to a difference in function. While in possessive phrases both the possessor and the possessum are referential, in compounds of the form given in (78) above, it is only the possessum that is possibly referring. Compare the compound-headed NP *randip-vukór=i* 'pig-head=3SG.SPC' -> 'a pig-head' with the possessive *randip an-i-ne vukór v<y>e=d-ya* 'pig GIV=3SG.SPC-this head <3SG>POS=3SG.SPC' -> 'the head of this pig'. In the compound-headed NP, reference is made to a singular specific pig-head, but not to a specific pig. In the possessive construction, on the other hand, both the pig and the head are referred to as entities that exist in the world of discourse.

³² Although the noun *in* 'fish' has a long vowel *í*, in compounds it seems to have a short vowel, as it does not attract lexical stress (cf. 2.4.2.4).

³³ Paradigmatically related to *snonkbor* 'male adolescent'.

A special group of right-headed N-X compounds is formed by a subset of the nouns referring to bodyparts. Many bodyparts are referred to by means of a compound in which N is an inalienable noun indicating a larger part of the body, while X further specifies the precise location. Bodyparts are dealt with in further detail in 6.2.1. Here it is sufficient to give some examples:

(79) Bodyparts as a special type of right-headed compounds

<i>vra</i> 'arm'	+ <i>min</i> 'member'	->	<i>vramin</i> 'arm'
<i>vra</i> 'arm'	+ <i>mpin</i>	->	<i>vrampin</i> 'finger'
<i>vra</i> 'arm'	+ <i>sop</i> 'bottom'	->	<i>vrasop</i> 'upper part of arm'
<i>we</i> 'leg'	+ <i>min</i> 'member'	->	<i>wemin</i> 'leg'
<i>we</i> 'leg'	+ <i>mpin</i>	->	<i>wempin</i> 'toe'
<i>we</i> 'leg'	+ <i>sop</i> 'bottom'	->	<i>wesop</i> 'upper part of leg'
<i>mka</i> 'eye'	+ <i>mor</i> 'ball'	->	<i>mkamor</i> 'eye ball'

Note the paradigmatic relation between the compounds *vramin*, *vrampin* and *vrasop* on the one hand, and *wemin*, *wempin* and *wesop* on the other hand. Also note that *mpin* is not attested as an independent lexeme. Now that N-X compounds have been discussed, it is time to turn to compounds formed with the relator *ve*. These will be dealt with in the two following sections.

3.3.2.1.2 Left-headed nominal compounds of the form [NveV]_N

A number of compounds are formed by the combination of a noun with the formative *ve* followed by a verb. In the attested examples, the main accent is on the verbal part. Semantically, the noun refers to the same entity as the entire compound, while the verb expresses an event that somehow characterizes or modifies the entity. Both semantically and formally, then, the compounds can be analyzed as left-headed.

(80) Left-headed compounds of the form [NveV]_N

<i>in</i> 'fish'	+ <i>ve</i>	+ <i>rap</i> 'roast'	->	<i>imberap</i> 'roasted fish'
<i>ro</i> 'thing'	+ <i>ve</i>	+ <i>an</i> 'eat'	->	<i>rovean</i> 'thing eaten -> food'

The formative *ve* in this case has a different function from the relativizer *ve-*, which links different parts of a noun phrase and does not form compounds. The difference is that the noun in the examples above is the non-Agent argument of the verb, while the relativizer *ve* always relativizes the Agent-subject. In other words, if *imberap* were a phrase, its interpretation would be *in ve-rap* 'fish REL-roast' -> '?fish that roasts' instead of roasted fish. Similarly, *ro ve-an* would have to be glossed as 'thing REL-eat' and have to be interpreted as 'thing that eats.'

3.3.2.1.3 Exocentric compounds of the form [NveN]_N

Nouns of the form NveN are exocentric, as it is not possible to consider one of the two members as the formal or semantic head. The group consists of a limited set of members, all referring to two or more next of kin (more on which can be found in 6.2.2). The following list gives some of the forms that have been attested in the corpus or been given in elicitation. For all the compounds, stress is on the second syllable:

(81) Exocentric compounds of the form [NveN]_N

<i>in</i> 'female person'	+ ve	+ <i>swa</i> 'spouse'	->	<i>imbeswa</i> 'wife and husband'
<i>in</i> 'female person'	+ ve	+ <i>sna</i> 'mother'	->	<i>imbesna</i> 'mother and child(ren)'
<i>in</i> 'female person'	+ ve	+ <i>mebin</i> 'aunt'	->	<i>imbemebin</i> 'cross-aunt and nephew(s)'
<i>in</i> 'female person'	+ ve	+ <i>srar</i> 'cross-sibling'	->	<i>imbesarar</i> 'sister and brother(s)'
<i>in</i> 'female person'	+ ve	+ <i>naek</i> 'parallel sibling'	->	<i>imbekanaek</i> 'two or more sisters' ³⁴
<i>in</i> 'female person'	+ ve	+ <i>kpu</i> 'grandparent'	->	<i>imbekpu</i> 'grandmother with grandchild(ren)'
<i>man</i> 'male person'	+ ve	+ <i>me</i>	->	<i>mambeme</i> 'uncle and nephews'
<i>man</i> 'male person'	+ ve	+ <i>srar</i>	->	<i>manbesrar</i> 'brother and sister(s)'
<i>man</i> 'male person'	+ ve	+ <i>naek</i> 'parallel sibling'	->	<i>mambekanaek</i> 'two or more brothers'
<i>man</i> 'male person'	+ ve	+ <i>kpu</i> 'grandparent'	->	<i>mambekpu</i> 'grandfather with grandchild(ren)'

Semantically, N1 and N2 refer to the same person; *in-ve-swa* is a female person (*in*) who also is someone else's spouse (*swa*). In the same line, *man-ve-me* is a male person who also is other persons' uncle. The compound, however, does not only refer to the person indicated by N1 and N2, but also to the kin to which N2 alludes. N1 is not the semantic head, because it is not possible to modify only N1, without also modifying N2. Thus, in the following sentence, 'happy' must have scope over both the woman and her husband and cannot modify only one of the two:

(82)	<i>imbeswa</i>	<i>vemarisn</i>	<i>ansuine</i>
	in-ve-swa	ve-marisn	an-su-i-ne
	female-LNK-spouse	REL-enjoy	GIV-3DU-SPC-this
	'this happy wife and husband'		

The example also makes clear another formal property of this type of compounds: none of these compounds combines with a singular determiner. This is another proof that none of the members of the compound can be considered as the head.

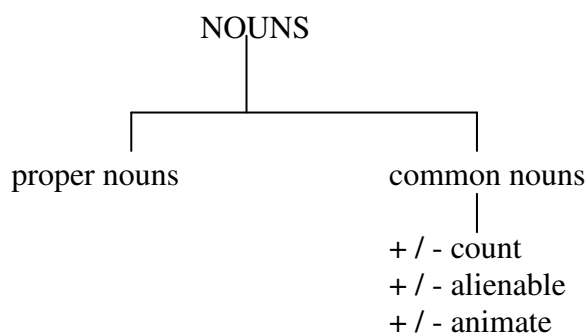
Now that nominal derivation and compounding have been discussed, the following section will pay attention to the different subclasses of nouns that can be distinguished.

3.3.3 Subclasses of nouns

A survey of the nominal subclasses is given in Figure 1.

³⁴ This compound contains a prefix *ka-* that may be related to the prefix *ka-* that is found in a number of verbs and adverbs, like *káris* 'aside' or *karandir* 'bordered' (cf. section 4.3.1.2).

Figure 1 Subclasses of nouns



The figure shows that the lexical category of nouns can be subdivided into common nouns and proper nouns. Whereas the proper nouns cannot be further divided into subclasses, common nouns can be divided into a number of subgroups. Common nouns can be count nouns or mass nouns, which can both be either animate or inanimate. Both animate and inanimate nouns can be either alienable or inalienable, so that there are, in principle, 2^3 possible combinations. Inalienable mass nouns are not attested, however, so that the possible combinations are reduced by two. In addition, for a number of inalienables, animateness cannot be seen as an inherent property of the nouns. Instead, one and the same noun can be marked as 'animate' or 'inanimate', the function of which will be accounted for in 3.3.3.3. We are left, then, with the following possible types of common nouns, listed and exemplified here:

- an alienable animate mass noun: *mak* 'sago.pulp'
- an alienable animate count noun: *asyok* 'spoon'
- an alienable inanimate mass noun: *rik* 'blood'
- an alienable inanimate count noun: *rum* 'house'
- an inalienable (count) noun, animate: *mebin* 'uncle',
- an inalienable (count) noun, inanimate: *rum* 'house',
- an inalienable (count) noun, \pm animate *vramin* 'arm', *bo* 'upper part'

In the rest of this section, the subclasses given in Figure 1 will be dealt with one by one. Chapter 5 on noun phrases, then, will go into some of the distinctions in further detail. In that Chapter, three further groups will be distinguished: locationals, kinship terms and bodyparts. While the class of locationals forms a subgroup of the inalienables, the class of bodyparts and the class of kinship terms cross-cuts the category of both alienables and inalienables.

3.3.3.1 Proper nouns

Proper nouns are names that are used to address or refer to particular persons or places. In the Biak language, they are often not combined with any adnominal markers. In the collected texts, I have not found any instance of a proper noun combined with the marker of givenness (*an*, discussed in (5.3.1)) or with the marker of specificity $=ya\sim=I$ (5.2, 5.3.1). Proper nouns may, however, combine with the homophonous marker $=i$, which cannot be considered a marker of specificity, as it is attested in both prepausal and non-prepausal position, whereas the allomorph $=i$ of the specificity marker is attested in prepausal position only (cf. 3.2.1 above). The marker can probably be equated with the 3SG personal pronoun *i*, and is used in

case the proper noun is 'in focus', i.e. when it supplies the essential new information.³⁵ Consider example (83) and (84), which are part of one conversation, and (85), which is part of another conversation. In the first conversation, it is the two instances of *Nofitai* in (84) that combine with =*i*, indicating that the speaker supplies a name to identify a referent.

- (83) *Vo skofrar mumre ido, inaimkun*
 vo sko-frar mu-m-re ido inai-mkun
 SIM 3PC -run PATH-to.here-land THEM young.woman-little
- insandya eyáron ro diwa nani ...*
 insandya ey-áron ro di-wa an-i
 just REL-swim LOC place-over.there GIV-3SG.SPC
 'And when they walked to here landwards, the young girl that was just swimming over there ...'

- (84) [B:] *Nofitai* [A:] *Nofitai.*
 B Nofita=i A Nofita=i
 <speaker.B> Nofita=3SG <speaker.A> Nofita=3SG
 <speaker B:> 'Nofita!' <speaker A:> 'Nofita!' [GBbt]

In (85) below we find the proper nouns *Dereki*, *Masyai* and *Rafaeli*, all containing the focus marker =*i*:

- (85) *Insandya rwowr skora ve bosen,*
 insandya r<w>owr sko-ra ve bosn
 just <2SG>hear 3PC-go to area.along.shore
- Efi Dereki Masyai, Rafaeli*
 Efi =i Derek =i Masya =i Rafael =i
 Efi =3SG Derek =3SG Masya =3SG Rafael =3SG
 'You have just heard that they went to the seaside, Efi, Derek, Masya and Rafael'
 [YWfg]

In other contexts, where it is not so clear that the proper noun is focused, certain proper names - none of them ending in a vowel - show a stronger preference for the use of =*i* than others. This is especially true for a limited set of place names. Some of these place names combining with =*i* more frequently are *Numfor(i)* 'Numfor', *sup amber(i)* 'the foreign land', *sup Vyak(i)* 'the land Biak', *Samber(i)* 'Samber'. In (86) and (87) we see an opposition between two minimally contrasting clauses, the first of which has *Numfori* with the clitic =*i* as the complement of *ve*, the second of which has *Korido* as a complement, without the clitic =*i*. Since I have not found a functional explanation for the use of this clitic, I will just gloss it as *iPROP*, which stands for 'the clitic *i* used after a certain limited set of proper names.'

³⁵ Future research should confirm whether this marker can be equated with a 3SG pronoun. It should be noted that we also find examples of proper nouns combining with nonsingular pronouns, as in *s-kon us=o Aplena=sko* '3PL.AN-sit with Aplena=3PC' -> They sat with Aplena and her family [GBay]. An important test would be to contrast the use of a proper name + *i* to the use of proper name + nonsingular pronoun (like *Aplena=sko* above) in similar contexts. In case the nonsingular pronoun would be followed by *i* (resulting in a form like *?sko-i*, '3PC-FOC'), it would be clear that *i* is a focus markers. In those cases where singular *i* can be contrasted with nonsingular pronouns, it is clear that *i* is indeed a pronoun.

(86) *Skobur ve Numfori.*
 sko-bur ve Numfor=i
 3PC-leave to Numfor=iPROP
 'They left for Numfor.' [MMjv]

(87) *Ibur ve Korido.*
 i-bur ve Korido
 3SG-leave to Korido
 'He left for Korido.' [MBhb]

3.3.3.2 Count nouns and mass nouns

The language does not make a morphological difference between count and mass nouns. Both count and mass nouns can pluralize, where some take animate and others take inanimate plural markers (cf. section 3.3.3.3). The only differences between count and mass nouns are that the latter cannot be combined with numerals, and that number marking has a different function compared to count nouns. While singular and plural marking on count nouns has a rather straightforward function, this function is more complex for mass nouns, and forms the topic of the rest of this section. The following two sentences, taken from the same conversation, nicely illustrate the function of number marking:

(88) *Ee! insare, afr annaya nasbawer.*
 ee in-sar=e afr an-na-ya na-sbawr
 eh female=VOC lime GIV-3PL.INAN.SPC-that PL.INAN-run.over
 'Hey, mother, the lime close to you runs over.' [YWee]

(89) *Be afrya ma yakan.*
 be afr=ya ma ya-k-an
 2SG.give lime=3SG.SPC and 1SG-use-eat
 'Give the lime here so that I can use it to eat (betelnuts).' [YWeq]

The use of the plural in (88) and the singular in (89) is not a matter of the quantity of lime being referred to, but rather expresses a difference in perspective. In (88) reference is made to the substance itself, whereas (89) is intended as a question after the lime being contained in a container. It seems that, in general, the singular is used to refer to what is perceived as a well-bounded or well-located entity or substance, while the plural is used when it is not viewed as a located entity. In line with this, body fluids and excretion (like *kururú* 'ear wax' and *váyorm* 'vomit') are usually referred to by a plural, as in the following example:

(90) *Ipok vyunk awer mnor vyena.*
 i-pok v<y>unk awer mnor v<y>e=na
 3SG-can <3SG>wipe.off not mucus <3SG>POS=3PL.INAN.SPC
 'He is not allowed to wipe off his mucus.' [SKag]

In case reference is made to the fluid or excrement itself, the singular is considered ungrammatical. Thus, in the example above, the use of the singular *v<y>e=d-ya* '<3SG>POS=3SG-SPC' is unacceptable, while it is also strange to speak of *kapu* 'faeces' / *aninf* 'spit' /

dadu 'sperm' (etc.) *v<y>e-dya*.³⁶ Another minimal pair illustrating the use of singular and plural is the following, both taken from a passage in the Manarmaker myth, in which his palm wine is stolen out of the palm tree in which it has just been produced. Note that here the plural is animate rather than inanimate, as it is an alcoholic drink that is referred to (cf. below).

- (91) *Dék* *raryáse,* *swán* *anya* *vyebei.*
 d-ék rar-yás swán an-ya v<y>e-bei
 3SG-go.up to.o.there-up palm.wine GIV-3SG.SPC <3SG>VBLZ-shell
 'When he went up again, the (container for the) palm wine was empty.' [MMfq]

- (92) *Mesrdi* *dék* *raryás* *wer,*
 mesr-ri d-ék rar-yás wer
 day-ANAPH 3SG-go.up to.o.there-up again
- swán* *anya,* *swán* *ansya* *sivro.*
 swán an-ya swán an-s-ya si-vro
 palm.wine GIV-3SG.SPC palm.wine GIV-3PL.AN-SPC 3PL.AN-gone
 'The following day he went up again, the (container of the) palm wine, the palm wine had gone.' [MMfw]

It is clear that in (91) reference is made to the container containing the palm wine. In (92), a shift in perspective can be perceived. The speaker first seems to focus on (wine as contained in) the container, but continues by focusing on the wine itself. The sentence is repeated later on in the story, where we find the use of a plural, and not of a singular.

In addition to the count-mass distinction, the language makes a marginal difference between liquids and non-liquids. A little quantity of a non-liquid is referred to by *ker*, while a little quantity of liquids is referred to by *ken*. The use of *ker* is illustrated in (93), while (94) gives an example of the use of *ken*. In the latter example, the hero Manarmaker complains that every morning he cannot drink even a little palm wine (because all of it has been stolen):

- (93) **Bapak** *isne* *ido,*
 bapak is-ne ido
 mister 3SG.PRED-this THEM
- vye* *rovean* *kerno* *ve* *aya.*
 v<y>e rovean ker=no ve aya
 <3SG>give food part=nonSP.nonSG to 1SG
 'If mister (the minister) is here, let he give some food to me.' [YMan]

³⁶ My informant gave a few examples, however, in which body fluids could also be combined with a singular determiner. The first example is the expression about Jesus' blood flowing for nothing: *Yesus rik v<y>e-d-ya i-mis waworek* 'Jesus blood <3SG>POS-SG-SPC 3SG-flow for. nothing'. The other two examples were the following two sayings. The first is *doms-o isare / domsno nasare, na kosmai rovean* 'sweat- SG.nonSP 3SG-come.out / sweat- PL.nonSP 3PL.INAN-come.out then 1PL.INC-get food -> (only) when the sweat comes out, we will obtain food.' The second, comparable saying, has the following clause as its first part: *riko isare / rikno násáre* (...) 'only when blood comes.out'. In all of these cases, the focus of the sentence is less on the concrete substance coming out. The flowing or coming out of the fluid is used in a more abstract or figurative sense, which might explain the use of the singular instead of the plural.

- (94) *Arwo* *muryáe* *yakinm* *kenno* *va*.
 arwo mu-r-yáe y-ák-inm ken=no va
 morning PATH- to.o.there-up 1SG-also-drink little=nonSP.nonSG not
 'When morning rises, I do not even drink a little (wine, like the others).' [MSII]

Inherently singular or inherently plural nouns have not been attested; all nouns can be pluralized (although for proper names this will be very rare), and nouns that inherently refer to a group can usually be combined with both plural and singular markers. This is illustrated by (95), where we find *kawasa* 'people' combined with the plural pronominal article *ansya*, and (96), where we find the same *kawasa* 'people' being combined with singular *-ya* '3SG.SPC':

- (95) **Kalau** *rifyo* *nanine*
 kalau rifyo an-i-ne
 when brother.in.law GIV-3SG.SPC-this

...atau *kawasa* *nansya...*
 atau kawasa an-s-ya
 or people GIV-3PL.AN-SPC
 'When this brother in law or the people ...' [DAdI]

- (96) **Dan** *kawasa* *era* *maya ...*
 dan kawasa e-ra ma=ya
 and people REL-go to.here=3SG.SPC
 'and the people that have come here ...' [DAeb]

Although all nouns can be used in combination with a plural, not all can co-occur with a singular, however. This is true for the exocentric [N_{ve}N]_N compounds given in 3.3.2.1.2 above, which require the use of dual number or higher, as illustrated in the following example:

- (97) *Imbeswa* *suine /* */skoine* */sine* ***ine**
 in-ve-swa su-i-ne sko-i-ne s-i-ne i-ne
 female-LNK-spouse 3DU-SPC-this 3PC-SPC-this 3PL.AN-SPC-this 3SG.SPC-this
 'This couple' [HKah] / these few couples / these couples / ***this couple**

3.3.3.3 Animate and inanimate nouns

The difference between animate and inanimate nouns is only apparent in the plural.³⁷ As such, it shows up in (anaphoric) free pronouns, in the marker of plurality at the end of a noun phrase, and in the inflectional marker on the verb. This is presented in the following table:

³⁷ The fact that a gender distinction is only made in the plural is an exception to Greenberg's universal 45, which says: "if there are any gender distinctions in the plural of the pronoun, there are gender distinctions in the singular also" (Greenberg 1966:96). While Steinhauer (1985:481-482) was probably the first to remark that the Biak language forms an exception to the universal, Siewierska (2004:109) shows that Biak is not the only language that forms an exception to universal 45. She sums up several languages where a human / non-human or animate / inanimate distinction is apparent in the plural but not in the singular.

Table 9 The morphological manifestation of animateness

	Free pronoun	Marker of plurality in noun phrase	Inflection on the verb
Animate	<i>si</i>	= <i>si</i>	<i>s-</i> / <i>si-</i>
Inanimate	<i>na</i>	= <i>na</i>	<i>n-</i> / <i>na</i>

Roughly speaking, the class of animate nouns comprises all humans and animals, whereas the class of inanimates comprises all the other nouns. Some typical examples are given in (98).

(98) Typical examples of animate and inanimate nouns

Animate nouns

<i>rofan</i>	'dog'
<i>mankroder</i>	'frog'
<i>mambri</i>	'hero'
<i>in</i>	'fish'
<i>sinan</i>	'parent'
<i>rofanfan</i>	'domestic.animal'

Inanimate nouns

<i>Rum</i>	'house'
<i>ai knam</i>	'tree'
<i>fawawi</i>	'knowledge'
<i>avdares</i>	'shed'
<i>romamun</i>	'gun'

The rule that nouns referring to humans or animals are marked as animate knows virtually no exceptions. The exceptions are rather the other way round: several nouns that do not refer to animals or humans nevertheless take animate morphology. To be more precise, we have the following situation:

- **Group 1** consists of nouns that are **always** classified as **animate**. This group comprises virtually all nouns referring to animals and humans, as shown in (98) above, and some other nouns, to which we will come back below.
- **Group 2** consists of nouns that are unexceptionally classified as **inanimate**. It comprises the majority of all the nouns not belonging to the first group, and can be seen as the residue group of group 1. Examples of this type of nouns were shown in (98) above.³⁸
- **Group 3** consists of nouns that are considered either **animate or inanimate, without** any observable **difference in meaning**. This group is relatively small, however, and the differences in classification may reflect influence from neighboring dialects.³⁹
- **Group 4** consists of nouns that are considered either **animate or inanimate**, the choice of which *does* go hand in hand **with a difference in meaning**. An example is the noun *kofi* 'coffee,' which is classified as animate when it refers to coffee as a dry substance, but classified as inanimate when it refers to liquid coffee.

The most interesting nouns are those that do not refer to animals or humans but nevertheless belong to the first group, and the nouns belonging to the fourth group. While for the nouns belonging to the first group the motivation of their classification as animates may be quite unclear, for nouns belonging to group 4 the motivation seems clearer, as it is a semantic difference that determines the choice for either animate or inanimate marking. The rest of this section will focus on the question what motivates the choice for animate marking, and will use illustrations from all of the groups mentioned above.

³⁸ These exceptions fit Corbett's observation (1991: 13) that the exceptional nouns in gender systems are usually those that do not seem to fit a certain semantic criterion, but nevertheless are included in the group meeting the criterion, rather than vice versa. Likewise in Biak the movement is from the residue group (the inanimates) into the group that is defined on the basis of a positive criterion (the animates) and not the other way round. Following Hockett (1966:62), cited in Corbett (1991:21), the group of animates might thus be called 'absorptive'.

³⁹ In Northern Biak dialects, for example, the use of *si* seems to have gained at the expense of *na*.

As mentioned above, all nouns referring to humans and animals are classified as animates. The criterion for membership related to this group could be said to be 'animate life.' Several other (sets of) criteria, however, may lead to the classification of an object as animate. In addition to the group of humans and animals, the following other groups of nouns classified as animate can be distinguished.

(a) Nouns referring to certain types of small objects

This set comprises nouns that answer the following criteria. They refer to objects that are (viewed as):

- small
- usually appearing in larger groups
- products of plant, tree, or animal

Some of the nouns that are always marked as animate (group 1) are the following:

(99) Nouns referring to small plant, tree or animal products,
occurring in large groups, always classified as animate

<i>mak</i> 'sago pulp'	<i>avris</i> 'grass'
<i>mak</i> 'star'	<i>samew smurm</i> 'blossom'
tomat (<i>bon</i>) 'tomato (fruit)'	sayur 'vegetables'
<i>pnor</i> 'egg'	<i>wei</i> 'edible leaves'

The following list gives some of the nouns that can be classified as animate or inanimate, dependent on their meaning (group 4):

(100) Nouns classified as animate only when referring to small edible objects

gula 'sugar'	<i>imbyef</i> (<i>bon</i>) 'banana (fruit)'
kopi 'coffee'	<i>bon</i> '(pieces of) fruit'
te 'tea'	<i>mor</i> 'tuber'
<i>ropum</i> (<i>bon</i>) 'betelnut (fruit)'	

The words *gula* 'sugar', *kopi* 'coffee' and *te* 'tea' are classified as animate when referring to the dry material - consisting of many small objects - but as inanimate when referring to the emulsion or solution. In other words, *kopi sine* 'coffee PL.AN.SPC=this' refers to the dry coffee, while *kopi naine* 'coffee PL.INAN=this' refers to the liquid coffee.

The nouns referring to fruits, like *ropum*, typically take animate marking when referring to smaller and younger fruits, and *na* when referring to bigger and older fruits. An interesting example of this occurs in one of my texts, where an informant tells about heaps of tubers lying on the ground. In this example he uses *bon* 'fruit' with an animate marking to refer to the little *ifn* tubers, and *mor* with inanimate marking to refer to the bigger ones:

(101)	Bonmkun	ansine	<i>sidawer</i> ,
	bon-mkun	an-s-i-ne	si-dawr
	fruit-small	GIV-3PL.ANIM-SPC-this	3PL.AN-left

<i>mor</i>	<i>annane</i>	<i>nadawer.</i>
mor	an-na-ne	na-dawr
tuber	GIV-3PL.INAN.SPC-this	3PL.INAN- left

These little 'fruits' are apart, and these tubers are apart. [AThb]

All nouns in (99) above refer to small plants or products of plants, tree or animals, except for *mak* 'star(s)', which nevertheless look like small little objects and occur in groups. The criterion of objects being 'small and many' was explicitly mentioned by several informants as an answer to the question why, according to them, a word was classified as animate. That this criterion indeed has some (psycho)linguistic reality is clear from the way in which my informant (, who visited me in the Netherlands,) classified Western products that are not or hardly known in Biak. A product like macaroni was straightforwardly classified as animate, while very finely pounded products were classified as inanimate. For products in between, my informant doubted as to their classification. This makes clear that the classification of a product as belonging to the group under discussion here presupposes that it is perceived as consisting of (many) distinguishable units.

(b) Alcoholic drinks

Alcoholic drinks are all classified as animate. Examples are the following, of which the last two are loans:

(102) Nouns referring to alcoholic drinks, classified as animate

(*srai*) *swan* '(palm) wine'
anggur 'wine'
bir 'beer'

When one of my informants told about the types of alcoholic drinks he had seen during his stay in the Netherlands, all of them not obtainable in Biak, he classified them all as animate. All non-alcoholic drinks are classified as inanimate.

(c) Metals or other valuable materials or objects made from these materials

Most of the nouns used for objects made from metals or other valuable materials are considered animate.⁴⁰ The materials themselves, however, differ in their classification. While *brawn* 'gold' and **kaca** 'glass' are animate, *mankarmomn* 'iron' is classified as inanimate. Here is a list of examples:

(103) Nouns referring to objects made from valuable materials, classified as animate	
<i>brawn</i> 'gold'	<i>sarak</i> 'bracelet'
gelas 'glass' (to drink from)	<i>ben</i> 'plate' (to eat from or to give away as dowry)
kikis 'file'	<i>asyok</i> 'spoon'
paku 'nail'	<i>wáw bei</i> 'turtle shell'
kawat 'wire' (made of iron)	<i>iko</i> 'spear'
kacamata 'glasses'	<i>manora</i> 'fish spear' (made of iron)
kaca 'glass in window'	

⁴⁰ This is not true for *all* items, however: *inoi* 'knife', *sumber* 'short.machete', *amaw* 'pickaxe' and *mkan* 'axe' are all made of iron, but nevertheless classified as inanimate. These examples also refute the idea that indigenous tools are classified as animate, as is also clear from the inanimateness of *maryai* 'bow' and *inoi* 'knife'.

The importance of the material became convincingly clear when I tested the way in which several small objects that are not part of the traditional culture were referred to. I made small heaps of small objects, and asked my informant to pose me the question 'what are these' in the Biak language. The most convincing examples illustrating the role the material were the following:

(104) *Ro-sai* *s-i-ne*
 thing-which 3PL.AN-SPC-this
 'What are these?' - referring to the *plastic* clips that I had taken
 from some of my pens [el]

(105) *Ro-sai* *na-ne*
 'thing-which 3PL.INAN.SPC-this'
 'What are these?' - referring to the *iron* clips that I had taken
 from some of my pens [el]

To close, some remarks need to be made on the animateness of body parts. First, bodyparts that do not appear in pairs, like *vukór* 'head' or *svadon* 'mouth' are inanimate while bodyparts that appear in pairs, like *vramin* 'hand' or *mkamor* 'eye', on the other hand, usually allow for both a classification as animate, and for a classification as inanimate. Second, the inalienable inflection of bodyparts betrays a slightly different function of 'animateness'. As illustrated in Table 10 below, bodyparts appearing in pairs end in the animate marker *-si* when referring to a singular possessor, while reference to more than one possessor is made by the inanimate marker *-na*. More on the morphology of bodyparts can be found in section 7.2.1.

Table 10 Inalienable inflection
 of bodyparts appearing in pairs

1g	we- si 'my eye(s)'
2sg	we-m- si 'your eye(s)'
3sg	we- si 'his eye(s)'
1du	ku-/nu-we-s- na <i>etc.</i>
2du	mu-we-m-s- na
3du	su-we-s- na
3pc	sko-we-s- na
1pl	(n)ko-we-s- na
2pl	mko-we-m-s- na
3pl	si-we-s- na

The use of animate *si* for singular possessed and *na* for plural possessed might be related to the fact that singular possessed bodyparts are distinguishable as separate units, whereas this is not true for the bodyparts of a large group of people. In line with this, several informants had the intuition that one usually refers to a group of glasses with animate marking (see above), but not as soon as one has to do with a few tens or hundreds of glasses packed in boxes, which are not observable as separate units any more.

3.3.3.4 Inalienable nouns

A limited set of nouns can be classified as inalienables. The term 'inalienable' expresses that the semantic relation between possessor and possessed is one of inalienable possession: the possession cannot be terminated (cf. Payne 1997:105). The inalienable nouns in Biak can be defined as those nouns that can take part in an inalienable possessive construction, in which

the nouns referring to the possessed takes inalienable affixes expressing person and number of the possessor (as well as suffixes expressing properties of the possessed). The morphology for inalienables is only partly predictable, and will be discussed in more detail in Chapter 6. To give an impression, Table 11 shows the forms for the inalienable possessives of the noun *vrū* 'head'.

Table 11 Illustration of inalienable morphology. From left to right there is variation in the number of the possessed, up down we find variation in the number and person of the possessor.

<i>vrū</i> 'head'				
	sg	du	tr	pl
1g	vruri 'my head'	<i>impossible</i>		
2sg	vrumri 'your head'			
3sg	vruri 'his head'			
1du	<i>impossible</i>	nuvrusna		
2du		muvrumsna		
3du		suvrusna		
3pc		skovrusna		
1pl		(n)kovrusna		
2pl		mkovrumsna		
3pl		sivrusna ⁴¹		

Although the nouns usually appear in an inflected form, linked with inalienable affixes, they can be used without, as in example (106), which forms the beginning of a sermon. There we find the noun *srar*, an inalienable noun, used without any suffix.

- (106) *Naek* *ma* *srar* ...
 naek *ma* *srar*
 parallel.sibling and cross.sibling
 'Brothers and sisters ...' [KMaa]

More on the inalienable construction can be found in chapter 6 on possession, where both the morphology and the syntax of possessive constructions (both alienable and inalienable) will be given attention.

3.4 Verbs

Verbs are characterized by a combination of syntactic and morphological properties. In the first place, verbs function as the head of a verbal predicate. As such they are marked for number, person and gender of the subject according to three possible patterns of inflection, illustrated in the following table. A more elaborate account of the different patterns is given at the outset of Chapter 4.

⁴¹ The ending *na* is reminiscent of the clitic =*na* used to mark the end of an inanimate noun phrase, cf. 3.3.3.3.

Table 12 Patterns of verbal inflection

	CONSONANTAL PATTERN		MIXED PATTERN			VOCALIC PATTERN
	CC-initial	CV-initial				V-initial
root	<i>srow</i>	<i>mar</i>	<i>so</i>	<i>mám</i>	<i>vov</i>	<i>árok</i>
meaning	'meet'	'die'	'throw'	'see'	'sell'	'straight'
1sg	<i>ya-srow</i>	<i>ya-mar</i>	<i>ya-so</i>	<i>ya-mám</i>	<i>ya-vov</i>	<i>y-árok</i>
2sg	<i>wa-srow</i>	<i>wa-mar</i>	<i>s<w>o</i>	<i>mám</i>	<i>bov</i>	<i>w-árok</i>
3sg	<i>i-srow</i>	<i>i-mar</i>	<i>s<y>o</i>	<i>m<y>ám</i>	<i>v<y>ov</i>	<i>d-árok</i>
1du.exc	<i>nu-srow</i>	<i>nu-mar</i>	<i>nu-so</i>	<i>nu-mám</i>	<i>nu-vov</i>	<i>nuy-árok</i>
1du.inc	<i>ku-srow</i>	<i>ku-mar</i>	<i>ku-so</i>	<i>ku-mám</i>	<i>ku-vov</i>	<i>kuy-árok</i>
2du	<i>nu-srow</i>	<i>mu-mar</i>	<i>mu-so</i>	<i>mu-mám</i>	<i>mu-vov</i>	<i>muy-árok</i>
3du	<i>su-srow</i>	<i>su-mar</i>	<i>su-so</i>	<i>su-mám</i>	<i>su-vov</i>	<i>suy-árok</i>
3pc	<i>sko-srow</i>	<i>sko-mar</i>	<i>sko-so</i>	<i>sko-mám</i>	<i>sko-vov</i>	<i>sk^h-árok</i> ⁴²
1pl.exc	<i>nko-srow</i>	<i>nko-mar</i>	<i>nko-so</i>	<i>nko-mám</i>	<i>nko-vov</i>	<i>nk^h-árok</i>
1pl.inc	<i>ko-srow</i>	<i>ko-mar</i>	<i>ko-so</i>	<i>ko-mám</i>	<i>ko-vov</i>	<i>k^h-árok</i>
2pl	<i>mko-srow</i>	<i>mko-mar</i>	<i>mko-so</i>	<i>mko-mám</i>	<i>mko-vov</i>	<i>mk^h-árok</i>
3pl.an	<i>si-srow</i>	<i>si-mar</i>	<i>s-so</i>	<i>s-mám</i>	<i>s-vov</i>	<i>s-árok</i>
3pl.inan	<i>na-srow</i>	<i>na-mar</i>	<i>n-so</i>	<i>n-mám</i>	<i>n-bov</i>	<i>n-árok</i>

The pronominal affixes combine with verbs according to one of the three possible inflectional patterns given in Table 12 above. All verbs with an initial consonantal cluster combine with the prefixes of set 1, while all vowel-initial verbs combine with the prefixes of set 2. All other verbs combine either with prefixes of set 1 or with prefixes of set 3, a choice that is lexically governed. Thus, the verb *fo* 'full' takes prefixes of set 1, as in *i-fo* '3SG-full' or *si-fo* '3PL.AN-full'. The verb *ra* 'go', on the other hand, takes prefixes and infixes of set 3, as in *r<y>a* '<3SG>go' or *s-ra* '3PL.AN-go'.

The use of a verb as head of a verbal predicate is illustrated in (107) and (108) below. The inflected verb may or may not combine with an overt subject-NP: in (107), there is an overt subject (*tanduk vyesya* 'its horns'), whereas in (108) there is none.

(107) **Tanduk** *vyesya* *sra* *ryas* (...)
 tanduk *v<y>e=s-ya* *s-ra* *r=yas*
 horn <3SG>POS=3PL.AN-SPC 3PL.AN-go to.o.there=up
 'Its horns went up (...)' [FYct]

(108) *Supambar* **meja**.
su-pan-var *meja*
 3DU-turn-side table
 'The two turned over the table.' [FAan]

Second, verbs are the only words that can be prefixed with the subject-relativizer *ve-*. As such, the verbs are not inflected for number and person of the subject. The subject prefixes and the subject-relatives *ve*, then, are in complementary distribution. In the following sentence, the verb *mun* is prefixed with the relativizer *ve-* and therefore not inflected for number and person of the subject:

⁴² The prefixes 3PC through 2PL lengthen the initial vowel of the verb to which they are attached. They are analyzed as ending in a floating mora (cf. 2.2.2).

- (109) *Mamfnai vemunu ko (...) nanya ...*
 mamfnai ve-mun=u ko an-ya
 fish REL-kill=U 1PL.IN GIV-3SG.SPC
 'The fish that murdered us (i.e. those that belong to us)...' [TWfk]

More on relative clauses and the use of the relativizer *ve* can be found in section 10.3.5.

Thirdly, verbs can be reduplicated according to a number of verb-specific patterns. A reduplicated verb may function as a noun, or as verb with durative, iterative, or another lexicalized meaning, as the following example shows:

- (110) *Fararúr suvedya sufararúr ro yáfe.*
 f~ara~rúr su-ve=d-ya su-f~ara~rúr ro yáf-
 ~RED~make 3DU-POS=3SG-SPC 3DU~RED~make LOC garden
 'Their work (was:), they worked in the garden.' [HKab]

In this example, *fararúr* is the reduplicated form of *frúr* 'make', 'do'. The first *fararúr* is used as a noun, the second as a verb. The patterns and functions of reduplication will be given in Chapter 7.

Whereas the principal distinction between verbs and nouns is clear, the language contains a number of nouns that can be related to verbs of the same form and related meaning. One group of nouns that is more or less systematically related to verbs of the same form is the group of human excrements, from which examples are listed in Table 13. The noun refers to the excrement, while the verb refers to the process of excreting.

Table 13 Words referring to human excrements or to the process of excreting

	<i>noun</i>	<i>verb</i>
<i>doms</i>	sweat	sweat
<i>kapu</i>	faeces	defecate
<i>sampo</i>	urine	urinate
<i>rik</i>	blood	bleed
<i>ókuv</i>	fart	fart
<i>aninf</i>	spit	spit

An exception to the systematic pairing of verbs and nouns for excrements, however, is provided by the noun *mnór* 'mucus', which cannot be paired with a verb of the same form.

Another group of systematically related noun-verb pairs is given with reduplicated verb forms, which will deserve elaborate attention in Chapter 7 on reduplication. Some of the other nouns that can be related to verbs of the same form are given in Table 14. Till now, I have not been able to make a further semantic subclassification of nouns belonging to this 'residue group'.

Table 14 Nouns and related verbs of the same form

	<i>noun</i>	<i>verb</i>
<i>kaku</i>	truth	true
<i>áwas</i>	border	border
<i>dares</i>	radiation	radiate
<i>kasun</i>	small one	small
<i>babo</i>	recent time, young one	young
<i>marisn</i>	enjoy	joy
<i>kenm</i>	life	live
<i>syap</i>	flow	flow
<i>sosef</i>	cover	cover
<i>sarfer</i>	fish line	fish using fish line

3.5 The absence of adjectives

Payne (1997:63), citing Thompson (1988), states that 'if a language has a morphosyntactically distinct class of adjectives, these adjectives will express at least the following properties: AGE (young, old etc.), DIMENSION (big little, tall, short, long etc.), VALUE (good, bad), COLOR (black, white, red, etc.)'. According to this criterion, the Biak language lacks a class of adjectives: basically all the adjectival properties that Payne mentions are expressed by verbs, except the property of age. For this group the language uses, among others, three words that behave different from verbs: *babo* 'young', 'new', *mkun* 'little' *kwar* 'old'. They behave different from verbs in that they can modify a noun without an intervening relativizer (*v*)*e*. Compare the modification of *wai* 'canoe' by the verbal *ba* 'big' in (111) with its modification by *mkun* 'little' in (112). That the other words can be used attributively without an intervening (*v*)*e*- is shown in (113) and (114).

(111) *wai eba* * *wai ba*
 wai e-ba wai ba
 canoe REL-big canoe big
 'A big canoe' [YWct]

(112) *Yavors wai mkunya ro dine.*
 ya-vors wai mkun=ya ro di-ne
 1SG-row canoe little=3SG.SPC LOC place-here
 'I rowed a little canoe here.' [GBdq]

(113) *Bee! mambri babo ke!*
 bee man-vri babo ke
 hey male-angry new DOUBT
 'Hey, are you a new hero?' [KOfh]

(114) *Sukain ro mnu kwar aniyaswa.*
 su-kain ro mnu kwar an-i-yas-wa
 3DU-sit,stay LOC village old GIV-3SG.SPC-up-over.there
 'They stayed in the old village up there.' [KOha]

Although these words are the only ones that both express adjectival notions and may directly follow the noun, this is not sufficient to analyze them as constituting a separate class of adjectives. The main reason for not analyzing them as adjectives is that their distribution can

also be explained on the basis of their membership of other lexical categories. The forms *kwar* and *babo* are also used as verbs, meaning 'old' and 'new' respectively. The forms *babo* and *mkun* are used as nouns, meaning 'recent time' and 'little object or being', respectively. In addition, all of these words are used as adverbs, *mkun* indicating 'a little', *babo* with the meaning 'just' and *kwar* with the meaning 'already'. The combination of a noun with one of these formatives can very well be explained as a nominal compound, with a noun or a verb as its second member, as is shown by the analogy between these and other nominal compounds, shown in Table 15:

Table 15 Nominal compounds and adjectival notions

Bases	Compound	Semantics
<i>rum</i> 'house' + <i>os</i> 'sago leaf roof'	<i>rumos</i>	house with roof out of sago leaves
<i>rum</i> 'house' + ' <i>ari</i> 'Sunday service'	<i>rumari</i>	church
<i>rum</i> 'house' + <i>mkun</i> 'little.object'	<i>rummkun</i>	small house
<i>rum</i> 'house' + <i>babo</i> 'recent'	<i>rumbabo</i>	new house
<i>rum</i> 'house' + <i>kwar</i> 'old'	<i>rumkwar</i>	old house

As mentioned above, the words *babo* and *kwar* are also used as verbs. When these words are used in attributive position, then, they are linked to the preceding noun by means of the relativizer *ve* and thus differ minimally from the words *babo* and *kwar* when part of a nominal compound. Compare (114) above to (115) below, the latter of which uses the relativizer *e-*, while the former does not. The same minimal opposition is found by comparing (113) and (116). According to my informants, there is no difference in meaning between the two constructions.

(115) *Skain ro mnu ekwar iyási.*
 s-kain ro mnu e-kwar i-yás-i
 3PL.AN-stay LOC village REL-old 3SG.SPC-up-that
 'They stayed in the old village above' [KObl]

(116) *Aw Iyásya ido mambri Ebabo ke.*
 aw i-yás-ya ido man-vri e-babo ke
 2SG 3SG.SPC-up-that THEM male-angry REL- new DOUBT
 'You up there, are you a new hero?' [TWec]

To express comparative and superlative notions, the language makes use of the verb *syadi* 'more than', which is used as postverb following the verb that it modifies (for postverbs cf. section 4.3.2). The structure of comparative and superlative constructions can be presented as in the following table, which gives the general structure and an example:

Table 16 Comparative and superlative constructions

General structure	(overt subject)	inflected verb	<i>syadi</i>	(object)	(<i>kám</i>)
Example	<i>mansar i-ne</i>	<i>iba</i>	<i>syadi</i>	<i>aya</i>	
	male-old 3SG.SPC-this	3SG-big	more	1SG	
	'this old man is bigger than I am'				

In these constructions, the subject (whether overt or not) refers to the entity that is 'more V' than the object. Whereas *syadi* can be used to express comparative and superlative notions, it can also be used as a postverb following verbs that are definitely not adjectival in meaning, forming constructions that are formally similar to the one given in Table 16. Therefore, the possibility of combining with *syadi* cannot be used as a diagnostic tool for considering a verb

as 'adjectival'. In (117) we see an example of a non-adjectival verb in combination with *syadi*, while the other two examples show adjectival verbs, the first of which has a superlative interpretation.

(117) *Isusu syadi kursi orovaido karapesai.*
 i-susu syadi kursi orovaido karapesa=i
 3SG-go.back more chair or chair=3SG.SPC
 'He walked backwards past the chair.' [S_T_152]

(118) *Inai vyanya idosr syadi siya káme.*
 inai v<y>an-ya i-dosr syadi si-ya kám
 daughter <3SG>POS.GIV-3SG.SPC 3SG-good more 3PL.AN-SPC all
 'His daughter was more beautiful than all the others' / 'the most beautiful of all' [MMhd]

(119) *Yamarisn syadi aw.*
 ya-marisn syadi aw
 1SG-enjoy more 2SG
 'I am happier than you are' [el]

Summarizing, then, the Biak language does not have a separate group of adjectives. Basically all adjectival notions are expressed by verbs, which can be used attributively in a relative clause introduced by *ve*. Some adjectival notions, however, are expressed by means of nominal compounding. The three words expressing adjectival notions in these compounds (*mkun* 'small', *babo* 'young, new' and *kwar* 'old') have been given in Table 15.

3.6 Prepositions

This section gives an overview of the prepositions used in the Biak language. Special emphasis will be given to the use of the three prepositions *ro* 'at', *ra* 'along' and *ve* 'to', as these are the most frequently used and are closely related to the spatial system as a whole as discussed in Chapter 9. Although this section confines itself to a discussion of the prepositions, reference will be given to those sections that discuss the use of the forms as members of other categories.

When prepositions combine with free pronouns, it is usually the preposition that is stressed, as indicated in the following example:

(120) *Svuk kermkuno ve i.*
 s-vuk ker-mkun=o ve i
 3PL.AN-give part-little=nonSP.SG to 3SG
 ['svuk ker'mguno 'vei].
 'They will give a little piece to him.' [MShb]

Prepositions do not combine with verbal affixes. They mark the relation between a nominal constituent and the main predicate, as in the example above, where the preposition relates the pronominal *i* '3SG' to the verbal predicate headed by *v<y>uk* ' <3SG>give.'⁴³

⁴³ Occasionally, a preposition is used to mark the relation between a nominal constituent and another nominal constituent, as in *syówi inko-ve=na ve aw* 'reverence 1PL.EXC-POS=3PL.INAN.SPC' -> 'our reverence to you' [GDad]. Note that the prepositional phrase here follows the NP-final determiner. Further it should be noted that

3.6.1 RO as indicating location

The locative preposition *ro* 'LOC' is related to the verb *ro* 'LOC' and has *ri* and the reduplicated form *roro* as possible variants. All these three forms are realized with initial [d] instead of [r] when following /n/ or /r/, as in *ya-kain ro di-ne* '1SG-sit LOC PLACE-here,' realized as [yakaindodine]. *Ro* basically indicates location.

In combination with verbs of motion, the prepositional phrase ([PP]) can express either (1) the starting point of an entity's movement, or (2) the area within which the movement is taking place, or (3) the end point of an entity's movement. The choice for one of these interpretations is made on the basis of the context. Within this context, some verbs are naturally more determinative of the interpretation of *ro* than others. To give an impression of the relation between the verb and the interpretation of *ro*, Table 17 lists some of the motion verbs that direct the interpretation of *ro* in one of the above mentioned directions.

Table 17 Preferred interpretation of *ro* 'LOC' in combination with several motion verbs

Verb form	Meaning of verb	Preferred interpretation of <i>ro</i>	Examples
<i>ra</i>	'go'	end point of movement	(121)
<i>mám</i>	'look'	end point of movement	(122)
<i>bur</i>	'leave'	starting point of movement	(124)
<i>ún</i>	'take'	starting point of movement	(123)

The following four sentences all illustrate one of the verbs given in Table 17 above. In (121) and (122), the PP indicates the end point of a movement, while the PP's in (123) and designate the end point.

(121) *Sura ro yáfe.*
 su-ra ro yáf
 3DU-go LOC garden
 'They went **to** the garden.' [HKai]

(122) *Dors myám ro aiknam mnani.*
 d-ors m<y>ám ro ai-knam mnan=i
 3SG-stand <3SG>see LOC wood-tree hole-3SG.SPC
 'He stood looking **into** the tree's hole.' [FYay]

(123) *Sún i ro soren.*
 s-ún i ro sorn
 3PL.AN-take 3SG LOC sea
 'They took him **out of** the sea.' [GBda]

(124) *Sinan Orisu ine ibur*
 sinan Orisu i-ne i-bur
 parent Orisu 3SG.SPC-this 3SG-leave

whereas *syówi* formally is a noun, the expression *syówi inkovena ve aw* can be thought of as referring to an event.

ro *Napdori* *myáse.*
 ro Napdori m-yás
 LOC Napdori to.here-up
 'This ancestor Orisu he left **from** Napdori in this direction upwards.' [BMbf]

The following sentences illustrate how *ro* refers to the area within which an event takes place:

(125) *Rofan anine* *vyark* *ro* *rum.*
 rofan an-i-ne v<y>ark ro rum
 dog GIV-3SG.SPC-this <3SG>lie LOC house
 'This dog stayed at home.' [HKaf]

(126) *Sufararúr* *ro* *yáfe.*
 su-f~ara~rúr ro yáf
 3DU-RED~make LOC garden
 'The two worked in the garden.' [HKab]

The difference between *ro* and *ve* (see below) is nicely illustrated in the following two examples. While (127) implies that the island Myosbefondi is seen indeed, example (128) does not have this implication; in that sentence *ve* just means that 'we look *in the direction of* Myosbefondi':

(127) *Komám* *murvun* *ro* *Myosbefondi.*
 ko-mám mu-r-vun ro Myosbefondi
 1PL.INC-see PATH-to.o.there-in.middle LOC Myosbefondi
 'We look to the middle (of the sea) until (the island) Myosbefondi.' [RSbt]

(128) *Komám* *murvun* *ve* *Myosbefondi.*
 ko-mám mu-r-vun ve Myosbefondi
 1PL.INC-see PATH-to.o.there-in.middle to Myosbefondi
 'We look to the middle (of the sea) in the direction of Myosbefondi.' [el]

The preposition *ro* is not only used to express location, but also to introduce prepositional phrases indicating time, as the following sentence shows.

(129) *Kán* *sui* *nane* *ro* *rasras.*
 k^u-an sui na-ne ro ras~ras
 1PL.INC-eat sago.porridge PL.INAN-this LOC day~day
 'We eat this sago porridge every day.' [SSbq]

3.6.2 RA 'along'

The preposition *ra* expresses movement over the area or along the trajectory designated by the NP-complement. If the NP does not designate an area or trajectory, *ra* X expresses something like 'like X', 'following X'. It is striking that *ra* in most cases combines with an NP that does not indicate one specific point in place, but rather an 'area'. *Ra* prefers to combine with words like *var* 'side', or locational nouns like *bo* 'upper area', instead of proper names, for example. The following examples illustrate the use of *ra* in this sense. Example (130) illustrates most clearly how *ra* introduces an NP designating the 'area' *along* which a certain movement is taking place. It was used to indicate one of three possible roads on the island Myosbefondi,

which were all parallel. Examples (131) and (132) can be considered as extensions of this use. In both cases the State of Affairs indicated by the verb can be considered as holding along or 'over' the area indicated by the NP.

- (130) *Komrán* **ra** *vanda* / *fadu* / *vande*
 ko-mrán ra var-ra / fadu / var-re
 1PL.INC-walk along side-sea / middle / side-land
 'We walk along the seaside / middle (path) / landside.' [notebook]

- (131) *Nkove-pakai* *airámna*
 nko-ve-pakai ai-rám=na
 1PL.EX-VBLZ-use wood-leaf=3PL.INAN.SPC

fa *nik* *nrup* **ra** *bo*.
 fa nik n-rup ra bo
 CONS moment 3.PL.INAN-close along upside
 'We use these leaves to close (the heap) at the upside in a moment' [ATbl]

- (132) *Isnaikir* **ra** *var* *ine*.
 i-snai-kir ra var i-ne
 3SG-light-open along side 3SG.SPC-this
 'The sky is opening up at this side.' [notebook]

The following minimal pair nicely illustrates the difference between *ro* and *ra*:

- (133) *Mankankan* *anine* *irov* **ro** *bo* *vyedi*.
 man-kankan an-i-ne i-rov ro bo v<y>e=d-i
 bird-dove GIV-3SG.SPC-this 3SG-fly LOC upside <3SG>POS=3SG-SPC
 'The dove flew above him.' [KOcj]

- (134) *Mankankan* *anine* *irov* **ra** *bo* *vyedi*.
 man-kankan an-i-ne i-rov ra bo v<y>e=d-i
 bird-dove GIV-3SG.SPC-this 3SG-fly along upside <3SG>POS-3SG.SPC
 'This dove flew above him / passed him above.' [el]

Both (133) and (134) can refer to the same event and be translated by: 'this dove flew above him'. In the case of *ro*, however, the flying is conceived as taking place *at a certain point*, above him, whereas *ra* rather focuses on the flying *along* or *through* the area above him. In line with this difference in perspective, the second sentence can also indicate that 'this bird' flies *along* him, or *passes* him above, whereas for the sentence with *ro* this is not a possible interpretation.

Now we turn to the non-spatial interpretation of *ra*, which can be seen as a metaphorical extension of its spatial meaning. In (135), for example, the meaning is still, in a sense, spatial: the shape of the snake follows the shape of, or 'goes along' the shape of a canoe. The other example, however, shows that the interpretation is not necessarily spatial at all. Nevertheless, throughout the dissertation, the preposition *ra* is glossed with the same 'along', expressing the fact that the different interpretations of *ra* are better understood as polysemy of one and the same *ra* rather than as different homophonous lexical items.

- (135) *Isnai ra wai.*
 i-snai ra wai
 3SG-appear along canoe
 'It (the snake) was formed like a canoe' [KOEz]

- (136) *Mkán ra marisn mkovena.*
 mk^h-an ra marisn mko-ve=na
 2PL-eat along joy 2PL-POS=3PL.INAN.SPC
 'Eat as much as you want.' (Lit. 'You eat along your wish.') [MSgc]

The preposition *ra* is attested frequently in combination with *mov* 'place'. In (137), *mov* is used as complement of the preposition *ra* and forms the head of the relative clause *insar ...ra*. Both in (137) (second *ra*) and in (138) it is used as a preposition whose complement *mov* 'manner' is 'raised' to become the head of a relative-clause structure, more on which can be read in section 10.3.1.

- (137) *Wákkofn na ra [mov*
 w-ák-kofn na ra mov
 2SG-also-say 3PL.INAN along place

[insar snam fyár ra]_{NCi}NP.
 in-sar sna-m f<y>ár ra=i
 female-old mother-POS.2SG <3SG>tell along=3SG.SPC
 'You also tell the things along the way in which your mother told (it) like.' [TWdt]

- (138) *Mesrdi siveatur*
 mesr-dí s-ve-atur
 day-ANAPH 3PL.AN-VBLZ-arrange

mov smun i rai.
 mov s-mun i ra=i
 place 3PL.AN-kill 3SG along-3SG.SPC
 'The following day they arranged the way in which they would kill him.' [MSge]

The combination of *ra* with *di-ne* 'place-this', or *di-ri/di-rya* 'place-anaphoric' is lexicalized, and has the meaning 'like this', respectively 'like that', shown in the examples (139) and (140). *Ra dine* 'like this' is cataphoric, while *ra dirya* is anaphoric, more on which will be said in 8.5.5.4.

- (139) *Vyevadí ra dine ve rofan anya*
 v<y>e-vadí ra di-ne ve rofan an-ya
 <3SG>VBLZ-announce along place-this to dog GIV-3SG.SPC

vo dóve: "befasíse!"
 vo d-óve be-fasís
 SIM 3SG-say 2SG.VBLZ-quiet
 'He announced as follows to the dog and said "be quiet!" ' [FPdy]

- (140) *Dákfararúr* *kukr* *si* *ra* *dirya.*
d-ák-f~ara~rúr kukr si ra di-rya
3SG-also~RED~make with 3PL.ANIM along place-ANAPH
'He also worked with them in that way (as just told).' [VYbr]

Whereas *ra* in combination with *dine* or *dirya/ diri* has the meaning given in the examples above, the combination of *ro* and *ve* with *dine* has a spatial interpretation, *ro dine* meaning 'here', *ve dine* meaning 'to this place':

- (141) *Rwa* *wún* *bonya* *ma*
r<w>a w-ún bon=ya ma
<2SG>go 2SG-take fruit-3SG.SPC and
- rwir* *i* *ro* *dine.*
r<w>ir i ro di-ne
<2SG>let.loose 3SG LOC place-this
'Go and fetch the piece of fruit and let loose of it here' [MSny]

- (142) *Idaf* *ve* *dine* *ma*
i-daf ve di-ne ma
3SG-drift to place-here to.here
'It drifted towards this place' [MSoy]

In addition to its use as a preposition, several homophonous forms *ra* are attested, some of which are probably historically related to the preposition *ra* described here. In the first place, there is the motion verb *ra*, then the conjunction *ra*, meaning 'until' (dealt with in 10.8.3). While this conjunction usually conjoins clauses, it occasionally functions as a preposition. The corpus contains a few examples of *ra* 'until' followed either by a noun (phrase) expressing time like *ra meser* 'until the (following) day', or by a place name (*ra Sopen* 'until Sopen'). Whereas the former can be analyzed as a conjunction followed by a nominal clause ('it was (the following) day'), this is not possible for the latter, which shows that here the conjunction may be developing into a preposition. More research is necessary on the precise semantic range of *ra* 'until' and its relation to the preposition *ra* 'along' that is the focus of this section. Finally, *ra* is also used as a directional clitic in several structural positions, indicating a movement that is related to neither speaker nor addressee. This use is discussed in 9.4.

3.6.3 VE 'to'

As a preposition, *ve* serves to introduce an NP expressing the goal towards which movement takes place, a use that is illustrated in (143) and (144).

- (143) *Subur* *ve* *rum* *suvani.*
su-bur ve rum su-v=an-i
3DU-leave to house 3DU-POS=GIV-3SG.SPC
'The two left for their home.' [FPek]
- (144) *Suminya* *isu* *royo*
su-min=ya i-su ro=yo
3DU-member=3SG.SPC 3SG-stretch.out thing= nonSP.SG

ve *suminya.*
 ve su-min=ya
 to 3DU-member=3SG.SPC
 'The one is handing something over to the other.' [S_T_169]

By metaphorical extension, *ve* is also used to introduce a beneficiary, as in (145) and (146).

(145) *Insape svuku násan ebayo ve i.*
 insape s-vuk=u násan e-ba=yo ve i
 then 3PL.AN-give=U title REL-big=SG.nonSP to 3SG
 'Then they will give a big title to him.' [ASad]

(146) *Wákverasakan rosaiu saprop anivavne*
 w-ák-ve-rasakan rosai=u saprop an-i-vav-ne
 2SG-also-VBLZ-feel what=U ground GIV-3SG.SPC-down-this

idaw ve aw.
 i-daw ve aw
 3SG-bring.profit to 2SG
 'You will also experience what profit this soil down here will bring you.' [VYcm]

In combination with determiner-less nouns, *ve* may have the meaning 'as' or 'like', as illustrated by the sentences (147) through (149).

(147) *Sekarang dáwe ve randip.*
 sekarang d-áwe ve randip
 now 3SG-squeal as pig
 'Now it squealed as a pig.' [MTao]

(148) *Wonkor anya dór i ve napirman.*
 wonkor an-ya d-ór i ve napirman
 crocodile GIV-3SG.SPC 3SG-call 3SG as cousin
 'The crocodile called him (as) cousin.' [KSaf]

(149) *Ifararúr ve guru.*
 i-f~ara~rúr ve guru
 3SG-~RED~make as teacher
 'He works as a teacher.' [el]

It is not entirely clear whether this *ve* should be analyzed as the preposition *ve*, or rather as the verbalizer *ve* as discussed in section 4.3.1.5. On the one hand, *ve* is like a preposition in that it is not inflected. On the other hand, it seems to combine with a noun rather than with a noun phrase, given the absence of examples in the corpus where *ve* 'as' is followed by a full NP closed off with determiners. Semantically, *ve* is quite similar to the meaning of the verbalizer *ve-*, as is clear from the comparison of (149) above with (150) below.

(150) *Vyeguru*
 v<y>e-guru
 <3SG>VBLZ-teacher
 'He is a teacher'

It is also possible, then, to analyze *ve* in the examples above as a verbalizer. The verbalizer makes the following noun into a verb, which then is used adverbially to modify another verb. Further research needs to be done, however, to confirm this analysis.⁴⁴

Note the difference between *ve* 'as', and *ra* 'along' with the interpretation 'like'. While the prepositional phrase *ra X* expresses something like 'like X', 'following X', the prepositional phrase *ve X* rather expresses 'being X' or 'as if subject-of-predicate were X'. The difference becomes clear by comparing sentence (151) with (135) above, repeated here as (152).

(151) ...*Isnai* *vese* *ve* *efarvuk*.
 i-snai vese ve e-farvuk
 3SG-appear different as REL-marry
 'She looked different as if she was married.' [MSbc]

(152) *Isnai* *ra* *wai*.⁴⁵
 i-snai ra wai
 3SG-appear along canoe
 'It (the snake) was formed like a canoe.' [KOez]

3.6.4 Overview of prepositions

The following table offers an overview of all the prepositions that were attested in the corpus. For every preposition the meaning is given, including a reference to an example where the use is illustrated. For some of the prepositions, the examples can be found below the table. In addition, for each form the table gives homophonous (possibly polysemous) forms that are members of other lexical categories. Reference is made to the sections that discuss these lexical categories, or to examples containing them.

⁴⁴ An important test would be whether *ve* 'as' indeed cannot be combined with a full-fledged NP, closed off with a determiner, as in *i-f~ara~rúr veguru=i* '3SG~~RED~make as-guru=3SG.SPC' -> 'he worked as a / the teacher'.

⁴⁵ It is not entirely clear whether *wai* here should be analyzed as *wai* 'canoe' or as *wai=i* 'canoe=3SG.SPC' with elision of *i* (cf. 2.6.4, 2.6.6).

Table 18 Prepositions. Meaning and use of homophonous (possibly polysemous) forms as members of other lexical categories. *N.a* should be read as 'not attested'.

Form	Meaning as a preposition	Conjunction	Verb with complement	Verb without complement	Adverb without compl.
<i>ro</i>	<i>location</i> (section 3.6.1)	n.a.	<i>location</i> ((18), (59), (273)	'disappear'	n.a.
<i>ra</i>	'along', 'over' (section 3.6.2)	'until' (section 10.8.3)	'go along' 'go over' (section 3.6.5)	'go'	'to.o.there'
<i>ve</i>	'to' (section 3.6.3)		Verbalizer (section 4.2.6)	auxiliary verb 'want' (section 4.3.1.5)	
<i>kukr</i>	'with': comitative (140), instrumental (153); 'because of' (20)	'because' (section 10.7)	n.a.	n.a.	n.a.
<i>snar</i>	'because of' (GDad, appendix A)	'because'	n.a.	n.a.	n.a.
<i>ker</i>	'from' (154)	n.a.	n.a.	n.a.	'continually'
<i>bur</i>	'from' (155)	n.a.	'leave' (section 4.2.3.1)	'leave' (section 4.2.3.1), (57)	'away'
<i>yov</i>	'to' (156)	n.a.	n.a.	n.a.	n.a.

Some examples, referred to in Table 18, are the following.

(153) *Snon anine kyórkar wortelya.*
 snon an-i-ne k<y>ór-kar wortel=ya
 male GIV-3SG.SPC-this <3SG>cut-break carrot=3SG.SPC

kukr *vraminsi.*
 kukr vramin=s-i
 with arm=3PL.ANIM-SPC
 'This man breaks a carrot with his hands.' [CB_P_32]

(154) *Yosua vaeri rya ker Manokwari.*
 Yosua vae-ri r<y>a ker Manokwari
 Yosua poor-3SG <3SG>go from Manokwari
 'Yosua – poor him – he came from Manokwari.' [BVdl]

(155) *Sún i bur mansar anya.*
 s-ún i bur man-sar an-ya
 3PL.AN-take 3SG from male-old GIV-3SG.SPC
 'They took him away from the old man' [MSfs]

(156) ***Seserahkan*** *i yov koranu nani.*
 se-serahkan i yov koranu an-i
 3PL.AN.VBLZ-hand.over 3SG to village.chief GIV-3SG.SPC
 'They handed him over to the village chief.' [MSfv]

3.6.5 Verbs and prepositions

The prepositions *ro* 'LOC', *ra* 'along', and *bur* 'from' are very closely related to verbs of the same form. It is clear, however, that the prepositions cannot be equated with the verbs, as verbs obligatorily combine with a subject marker or a relative marker, while prepositions do not. Except for this difference in morphosyntactic properties, the semantic and further syntactic properties of the prepositions follow from those of the verbs. Thus, both the verb *ro* 'LOC' and the preposition *ro* 'LOC' indicate location and take a nominal complement, as in *oso r<y>o Wardo va* 'INDEF.SG <3SG>LOC Wardo not-> 'there was no one in Wardo' (cf. (18) above). With respect to *ra*, the verb *ra* 'go' optionally takes a complement, while this is obligatory for the preposition *ra* 'along' by definition. The semantics of the preposition follow from the semantics of the verb. A good illustration is given with the following examples. While (157)a shows the use of the verb *ra* 'go' with a nominal complement, (157)b illustrates the use of *ra* 'as a preposition. Example (157)c, finally, shows that the use of the verb *ra* 'go' prevents the use of a preposition.

- (157) a *Ko-ra* *vanda* / *fadu* / *vande*
 ko-ra var-ra / fadu / var-re
 1PL.INC-go side-sea / middle / side-land
 'We go along the seaside / middle (path) / landside.' [notebook]
- b *Komrán* *ra* *vanda* / *fadu* /
 ko-mrán ra var-ra / fadu /
 1PL.INC-walk along side-sea / middle /
 'We walk along the seaside / middle (path) / landside.' [notebook]
- c* *Kora* *ra* *vanda* / *fadu* / *vande*
 ko-mrán ra var-ra / fadu / var-re
 1PL.INC-walk along side-sea / middle / side-land [el]

Finally, both the verb *bur* 'leave' and the preposition *bur* 'from' take a nominal complement and indicate the movement away from an area. Similar to what was shown for *ra*, here too the use of the verb *bur* prevents the use of a following preposition *bur*.

3.7 Adverbs

In many descriptive grammars, the term 'adverb' is reserved for 'any word with semantic content that is not clearly a noun, a verb or an adjective' (Payne 1997:69). On the one hand, the grammar at hand follows this practice, in subsuming words with different distributional properties under the cover term 'adverbs'. On the other hand it attempts to let the differences between the different (groups of) adverbs come out, by giving a motivated subdivision. The subdivision given below is semantically motivated, but correlates quite neatly with morphological and distributional properties.

Although quite a number of Biak adverbs can occupy several positions in the clause, it is nevertheless possible to characterize adverbs in terms of the positions they *tend* to occupy in the clause. The basic Biak clause structure will be dealt with in Chapter 8 and can be presented as follows:

Figure 2 Structure of the Biak verbal clause.

Round brackets indicate optionality, the square brackets indicate the boundary of the core, while the asterisk indicates zero or more instances of the constituent to which it is attached. SM- should be read as subject marker.

	P1	CORE			EXTENSION
<i>constituents</i> :	(NP)	[SM- +	V	(NP)] ^{core}	(PP)*
<i>semantic function</i>					
		S/A	Pred	Undergoer	Beneficiary / recipient, locative, comitative (etc.)
<i>grammatical function</i>					
		Subj	Pred	Object	
<i>pragmatic function</i>	topic				

3.7.1 Adverbs of time

In the Biak sentence, events are usually located in time by means of adverbially used noun phrases, as in the following example. Here, we find the adverbially used noun phrase *ras ine* 'this day':

- (158) *Ras ine kovors ro sorn ine (...)*
 ras i-ne ko-vors ro sorn i-ne
 day 3SG.SPC-this 1PL.INC-row LOC sea 3SG.SPC-this
 'This day we row on this sea here (...)' [SKag]

In addition, the language has a few temporal adverbs. Although the language clearly has a small number of temporal adverbs, the demarcation between nouns and adverbs is fluent, and it is clear that several adverbs are historically related to nouns. The following overview lists those temporal expressions that can be considered adverbs, although some of them can also be considered nouns with a limited distribution, as will be explained below.

(159) Time adverbs

na(ri) 'then, in minute'
insape 'then', 'recently'⁴⁶
insandya~insandi 'just'
mandovindya~mandovindi 'yesterday'
arwandya~arwandi 'just, this morning'
mandirarya~mandirari 'yesterday afternoon'

Of the adverbs given in (159), *na* 'then', *insandya* 'just' and *mandovindya* 'yesterday' cannot synchronically be related to nouns. *Arwandya* is related to *arwo* 'morning', while *mandirarya* is related to *mandira* 'late afternoon'. Considering the form of the adverbs in more detail, it is striking that all end in *ri~rya* or *ndi~ndya*. *Arwandya* can be related to the comparable expressions *rov andya* 'night andya' -> 'last night' and *arkok andya* 'last noon'. *Mandirarya* is comparable in morphological form to *mesr-di* (*di* is an allomorph of *ri* after *r*) 'tomorrow-ri' -> 'the following day'. The corpus contains one example where the sequence of *mesr* and *ri* is

⁴⁶ The latter meaning is marginal, however, and may be a calque on local Malay *baru*, which is used to refer both to succession and to recent past.

broken up by the adverb *wer*, but no examples of *mandira* and *rya* being broken up. Although some of the temporal expressions given here are historically phrases or even clauses, nowadays they seem to be fixed expressions.⁴⁷ *Arwandya*, *mandovindya* and *insandya* have some nominal properties, in that they can function as the complement of a preposition, as in the following example, where we find *insandi* 'just' as complement of *ro* 'LOC':

- (160) *Mansar* *anya* *rya* *ma* *ro* *insandi*.
 mansar an-ya r<y>a ma ro insandi
 male-old GIV-3SG.SPC <3SG>go to.here LOC just
 'The old man has just come here.' [eI]

Syntactically, all time adverbs come before the verb, as in the following example, where we find both *insandya* 'just' and *na* 'then' preceding the verb:

- (161) *Insandya* *kufrar* *swáf* *kaku*
 insandya ku-frar swáf kaku
 just 1DU.INC-run distance real
- rya* *na* *bak* *pipisya* *samfur*.
 rya na bak pipi=s-ya samfur
 so then 2SG.pay money=3PL.AN-SPC ten
 'We two have just driven very far, so in a moment you must pay me ten thousand (rupiah).' [YMbz]

As illustrated in (160) above, some of the time adverbs can follow the verb, but only as part of a prepositional phrase. In this respect, they are similar to other nouns that can be used as temporal adverbials. In preverbal positions, it is usually noun phrases that function as adverbial expressions, while in postverbal positions the language tends to use prepositional phrases. Compare the following examples; where *ro* 'LOC' is optional in (162)a, it is obligatory in b.

- (162)a (Ro) *rasras* *kofúr* *yáfe*.
 ro ras~ras ko-fúr yáf
 LOC day~day 1PL.INC-make garden
 'Day by day we work in the garden.' [eI]

⁴⁷ The *ri~rya* found at the end of these adverbs is probably related to anaphoric *ri~rya* found in nominal clauses, which has an anaphoric function (cf. 8.5.5.4) , as in the following example

i-ri
 3SG.PRED-ANAPH
 'it's him' [GBey]

The ending *ndi~ndya* is built up of *n* and *ri~rya*, where the function of *n* cannot be tracked down any more. The ending *andya* in *arwandya* may be built up of *an-* 'GIV' and *ri~rya*, but this is mere speculation. *Ri* is also homophonous with *-ri* 'POS.3SG', used in inalienable possessive constructions, like *rum=ya bo-ri* 'house-3SG.SPC upside-POS.3SG' -> The house's upside. This possessive *ri*, however, has no allomorph *-rya*, unlike the anaphoric *ri~rya* given above. For this reason, it is likely that *ri* in the temporal adverbs is related to the anaphoric *ri* rather than the possessive *-ri*.

- b *Kofúr* *yáf* **(ro)* *rasras.*
 ko-fúr yáf ro ras~ras
 1PL.INC-make garden LOC day-day
 'Day by day we work in the garden.' [el]

Now again consider adverbs in preverbal position. If the clause has an overt subject, the adverb can both precede and follow the overt subject, as illustrated in the following examples:

- (163) *Na* *snonkaku* *ansine* *smun* *ko*
 na snonkaku an-s-i-ne s-mun ko
 then human.being GIV-3PL.ANIM-SPC-this 3PL.AN-kill 1PL.INC

va.
va
not
 'Then the people will not kill us.' [MBer]

In the sentence below, *na* follows the overt subject and thus intervenes between the overt subject and the verb:

- (164) *Ikák* *anine* *na* *syéwaru* *sansun* *epyum (...)*
 ikák an-i-ne na s<y>éwar=u sansun e-pyum
 snake GIV-3SG.SPC-this then <3SG>seek=U clothes REL-good
 'This snake then sought good clothes (...)' [MIaj]

Examples of sentences containing both an overt subject and a time adverbial as in (163) and (164) above, however, are rare. Moreover, there are no convincing criteria to decide whether a preverbal NP like *ikák anine* 'this snake' in (164) above is a preclausal theme or is really part of the main clause.

Insandya 'just' is also used to modify a noun instead of a verb. As such it can precede or follow the noun that it modifies. It signifies that the noun has been mentioned in the preceding context.

- (165) *Rama* *insandya* *wáw* *ani,*
 rama insandya wáw an-i
 afterwards just turtle GIV-3SG.SPC

wáw *anya* *dóve:*
wáw an-ya d-óve
 turtle GIV-3SG.SPC 3SG-say
 'After that, the turtle of a while ago, the turtle said:' [MBgn]

- (166) *Kosasyar* *ro* *nyan* *insandya,* (...)
 ko-sasyar ro nyan insandya
 1PL.INC-go.out LOC road just
 'We come out of the road I mentioned a while ago, (..)' [RWdq]

3.7.2 Adverbs of manner and adverbs of degree and intensity

The following adverbs of manner were attested:

(167) Adverbs of manner

fasaw 'quickly'
fáwáse 'slowly, carefully'
ávavn 'slowly'
fasís 'quietly'
sifsyof 'crossing over'
karandír 'bordered'
káris 'aside'
nanm 'very well'

The adverbs virtually always follow the verb that they modify, as in the following example:

(168) *Indya irov fasaw ra d-únu*
 indya i-rov fasaw ra d-ún=u
 so 3SG-fly fast until 3SG-take=U

min anya ma.
 min an-ya ma
 member GIV-3SG.SPC to.here
 'So it flew quickly to fetch one (root of the kind just mentioned)'

When the verb is followed by an object, the adverb can either follow the object, or intervene between the verb and the object. Both possibilities are illustrated below.

(169) a *Iser fasaw i.*
 i-ser fasaw i
 3SG-hold fast 3SG
 'She quickly took hold of him (her child).' [GBbr]

b *Iser i fasaw.*
 i-ser i fasaw
 3SG-hold 3SG fast
 'She quickly took hold of him (her child).' [e]

Although adverbs usually follow the verb, the corpus contains two examples of *fasaw* 'fast' as head of an adverbial phrase in preverbal position, one of which is given here:

(170) *Fasaw dam mónda rya wer mrum*
 fasaw dam mónda r<y>a wer m-rum
 fast very only <3SG>go again to.here-inside
 Just very quickly it came in again (about a fruit that a girl throws away, which then flows back to her). [MSpe]

Adverbs of degree and intensity cannot as a group be distinguished from manner adverbs on morphological or syntactic grounds. The only reason for listing them separately has to do with

their slightly different semantic function. Most of the attested adverbs of degree and intensity are given here:

(171) Adverbs of degree and intensity

mónnda 'only'
mántar 'very'
dam 'very'
marsir (...) *va* 'intensively'
fafaya (...) *va* 'really' (lit.: 'not a talk')
bós 'totally (affected)'
mkun 'little'
kaku 'really'

Although more research is needed on the precise semantics of the adverbs, some tentative remarks can be made. The word *mantar* is attested only once, as modification of *ba*: *iba mantar* 'he is very big'. The adverb *dam* is used more frequently: twice with *pyopr* 'white', twice with *sren* 'clean, pure', twice with *fasaw* 'fast' (as in (170) above), and once with *mkun* 'small'. It is a question for further research whether the use of *mantar* and *dam* is restricted to modification of certain types of verbs. *Marsir ... va* 'intensively' and *fafaya ...va* 'really' (literally 'sermon not' -> 'not just a story, truly' are attested only in this combination, with a negative *va*. The negative *va* 'not' can directly follow *fafaya*, or come in clause final position. Both possibilities are illustrated below:

(172) *Kovinkwán* *fafaya* *va* *bur* *Manserni*.
ko-vinkwán *fafaya* *va* *bur* Mansern=i
1PL.INC-far.away sermon not from Lord=3SG
'We are very far away from the Lord.' [PDax]

(173) *Kukr* *suswar* *fafaya* *rofan* *anine* *va*.
kukr su-swar *fafaya* rofan an-i-ne va
because 3DU-love sermon dog GIV-3SG.SPC-this not
'Because they loved this dog very much.' [HKbw]

When the adverbs are used in postverbal position, they fall into the descriptive category of postverbs, discussed in 4.3.2. Some of them have specialized semantics in combination with certain (types of) verbs. This is the case for the adverb *bós*. As a normal adverb, it has an intensifying function, illustrated in the following examples:

(174) *Nayaryar* *bóse*.
na-yar~yar *bós*
3PL.INAN-RED~go.round totally
'They (the buses) are very late.' [YWeh]

(175) *Iswar* *aya* *bóse*.
i-swar aya *bós*
3SG-love 1SG totally
'He loves me very much.' [e]

In combination with verbs of hitting, however, the use of *bós* indicates that the object is heavily affected, which usually implies that it dies, as in the following example:

- (176) *Ínu* *vyuk* *ankyon* *vyedya*
 ín=u v<y>uk ankyon v<y>e=d-ya
 fish=U <3SG>give spear <3SG>POS=3SG-SPC
- iwan* *bós* *i.*
 i-wan bós i
 3SG-stab totally 3SG
 'The fish ... he used his spear to stab it dead.' [MMeq]

The semantic unity of the verb coincides with a stronger bond between the verb and the adverb. Whereas the adverb *bós* follows the pronoun *aya* in example (175), in (176) it cannot be separated from the verb. This shows that *bós* forms a kind of compound with verbs of hitting, but not with other types of verbs. The semantic specialization may be a reason to consider *bós* in this position as a verbal suffixoid, as discussed in 4.3.2.

The adverb *mkun* 'little' also forms compounds with nouns, as has been illustrated in section 3.5. Compare the following examples:

- (177) *Snari* *indo* *idafdúf* *mkun*
 sna-r=i indo i-daf~dúf mkun
 mother-POS.SG=3SG THEM 3SG-RED~ill little
- indya* *iso* *va*
 indya i-so va
 so 3SG-accompany not
 'As for his mother, she is a little ill so she has not come with us.' [BVby]
- (178) *Siyaw* *rofanmkun* *ani.*
 si-yaw rofan-mkun an-i
 3PL.AN-pursue dog-little GIV-3SG.SPC
 'They pursued the little dog.' [FFbm]

The adverb *kaku* 'really', finally, is related to the verb *kaku* 'real, true'. Its distribution overlaps with that of the other adverbs discussed in this section, although it can also be used as an independent utterance, and in pre or post-clausal position. As such, it predominantly has an interpersonal function, confirming the truth of one's own words or someone else's words. An example is given with the two following utterances, where (180) is a reaction to (179).

- (179) *Suveganti* *wer* *fa* *Aplena*
 su-ve-ganti wer fa Aplena
 3DU-VBLZ-change again CONS Aplena
- i* *ewadadurni*
 i e-wa~da~durn =i
 3SG REL~RED~deliver=3SG.SPC
 'The two had changed again, so that Aplena now was the one delivering (people over the river)' [GBar]

- (180) *Oo Aplena, iwadaduren.*
 oo Aplena i-wa~da~durn
 ooh Aplena 3SG-~RED~deliver
- Aplena iwadurn fadwer snarsu, kaku.*
 Aplena i-wadurn fadwer sna-r=su kaku
 Aplena 3SG-deliver substitute mother-POS.3SG=3DU real
 'O Aplena she was delivering, Aplena had replaced her mother and father, indeed' [GBas]

When modifying a verb, the adverb's meaning is sometimes quite close to that of the noun *kaku* 'truth' given above, in the sense that it stresses that the modified event is true. This is the case in (181) below, where *kaku* expresses that people want to seek who really has the village, opposed to others that do not have it:

- (181) *Sséwar vena kaku mnuyanya.*
 s-séwar ve-na kaku mnu=ya-n=ya
 3PL.AN-seek REL-have real village-3SG.SPC=SEP=3SG.SPC
 'They seek who really has the village.' [BMbi]

This meaning is also found in nominal compounds, as in the following example:

- (182) *Voi kéret kaku inkovedya iso: Kaisiepo.*
 voi kéret kaku inko-ve=d-ya is-o Kaisiepo
 but clan real 1PL.EX-POS=3SG-SPC 3SG.PRED-o Kaisiepo
 'But our actual clan is Kaisiepo.' [RVax]

In many cases, however, the adverb is simply an intensifier of the meaning of the verb, which is probably the result of a grammaticalization path that has also been described for other languages (cf. Heine & Kuteva 2002: 302). Two examples are given here:

- (183) *Imarishn kaku déke.*
 i-marishn kaku d-ék
 3SG-enjoy real 3SG-go.up
 'It (the dog) really wanted to go up.' [FYbu]
- (184) *saroi veba kaku*
 saroi ve-ba kaku
 whale REL-big real
 'a very big whale' [TWbh]

3.7.3 Modal adverbs

This section discusses the adverbs *imbe* 'want', *imbude* (~*imbure*) 'let it not be that', *harus* 'must' and *bisa* 'can'. The latter two are loans from Indonesian or local Malay, while the adverb *imbe* is related to the auxiliary verb *ve* 'want.' Although *harus* 'must' and *bisa* 'can' are verbs in local Malay and Indonesian, they are not considered verbs in Biak, as they are not prefixed with the verbalizer *ve-* and not inflected for number, gender and person of the subject. Semantically, the adverb *imbe* 'want' basically expresses intention, *imbude* expresses the wish from the side of the speaker that the following proposition is not the case. The adverb *harus* 'must' expresses obligation, while *bisa* 'can' expresses ability.

The modal adverbs are placed in preverbal position, as in the following examples:

- (185) *Indya harus yaséwar mov ryoroi.*
 indya harus ya-séwar mov r<y>oro=i
 so must 1SG-see place <3SG>LOC=3SG.SPC
 'So I must seek the place where he is.' [MYam]

- (186) *Koro Insumbavdi, bisa kowapuk wer*
 ko-ro Insumbavdi bisa ko-wap-uk wer
 1PL.INC-LOC <Insumbavdi> can 1PL.INC-cut-in.two again

kora ma kosun ro Sowek.
 ko-ra ma ko-sun ro Sowk
 1PL.INC-go to.here 1PL.INC-enter LOC Sowk

'(When) we are at (the island) Insumbavdi, we can again take a shortcut in this direction and enter (at) Sowek.' [RSbj]

When the sentence contains an overt subject-NP, the modal adverb can precede the overt subject as in (187), or follow it, as in (188).

- (187) *Vape bisa romámkun anine myám bavír i.*
 vape bisa romá-mkun an-i-ne m<y>ám bavír i
 but can child-little GIV-3SG.SPC-this <3SG>see know 3SG

'(All frogs looked alike,) but the child could recognize it (his own frog).' [FYdp]

- (188) *Insape wonkor imbe daw kaku kerai*
 insape wonkor imbe daw kaku kera=i
 then crocodile want 3SG-arrange real monkey=3SG

ma imar.
 ma i-mar
 and 3SG-die

'Then the crocodile wanted to arrange really that the monkey would die.' [KSdh]

The modal adverbs (except *imbude*, cf. below) tend to be used after preclausal NP's, which may be coreferential with the subject marker on the verb, as illustrated below:

- (189) *[Ima]_{NP}, [in vebana]_{NP} [mkoine]_{NP}*
 i-ma in ve-ba=na mko-i-ne
 3SG-TOP fish REL-big=3PL.INAN.SPC 2PL-SPC-this

bisa mkora fre mkákref
 bisa mko-ra f-re mk-ák-ref
 can 2PL-go tow.T<>S-land 2PL-also-compete

<i>vo</i>	<i>mkákpramdiwr</i>	<i>karui</i>	<i>nannane</i>
vo	mk-ák-pram-diwr	karui	an-na-ne
SIM	2PL-also-hit-shatter	stone	GIV-3PL.INAN.SPC-this

<i>vo</i>	<i>mkákan.</i>
vo	mk-ák-an
SIM	2PL-also-eat

'Given this (food), you big fishes you can go landwards and also compete, and also make shatter these stones and also eat.' [MBep]

The sentence above contains several preverbal NP's. First, the NP *ima* refers to (the afore mentioned) food that can be found among the mangroves. The two NP's *in vebana* 'the big fishes' and *mkoine* 'you here' are in apposition, and coreferential with the subject marker *mko-* on the verb.

Although all of the adverbs given in this section can be considered modal adverbs, there is a functional difference between *imbude* on the one hand and the other adverbs on the other hand. The adverbs *imbe*, *harus* and *bisa* are basically subject oriented, in the sense that they usually express the subject's intention, the subject's obligation, or the subject's ability to perform an Event. The adverb *imbude*, on the other hand, has scope over the entire proposition and expresses the wish that the state of affairs expressed by this clause will not be the case. Syntactically, *imbude* differs from the other adverbs in two respects. First, it often co-occurs with clause-final modal *ri*. Second, it tends to be placed at the very beginning of the sentence, and - unlike the other modal adverbs - tends to precede preclausal phrases. The following sentences are good illustrations:

(190) ***Imbude*** [mesr ido]_{NP}
 imbude mesr ido
 let.it.not.be day THEM

<i>kofrúr</i>	<i>rusaku</i>	<i>avdars</i>	<i>nainefandi.</i>
ko-frúr	rusak=u	avdars	na-i-ne-fa=n=ri
1PL.INC-make	broken=U	shed	3PL.INAN-SPC-this-to.there=SEP=IRR

'Let it not be the case that tomorrow we damage these sheds.' [DAfo]

(191) ***Imbure*** [ekainepninkoya inko]_{NP},
 imbure e-kain-epn=nko-ya inko
 let.it.not.be REL-sit-push.tight=1PL.EX-SPC 1.PL.EX

[<i>nkóbór</i>	<i>va</i>	<i>vo</i>] _{verbal clause}	<i>ero</i>	<i>vondisya</i>
nko- ^h bór	va	vo	e-ro	vor-ri=s-ya
1PL.EX-much	not	SIM	REL-LOC	side-out=3PL.AN-SPC

<i>síbór</i>	<i>syadi</i>	<i>nkondi.</i>
si- ^h bór	syadi	nko=n=ri
3PL.AN-much	more	1PL.EX=SEP=IRR

'Let it not be the case that we who stay here – we are not much – let the ones outside not outnumber us.' [VYnz]

Both in (190) and (191) *imbude* comes at the very beginning of the sentence. In (190) it is followed by the preclausal (adverbially used) noun phrase *mesr ido* 'tomorrow', while in (191) it is even followed by both a noun phrase (*ekain epn nkoya inko* 'we who stay') and an entire clause (*nkobor va vo* 'we are not many'), preceding the clause that *imbude* has actually scope over. Both (190) and (191) close off with *ri* 'IRR', some more on which can be read in 10.2.5.

3.7.4 Motion adverbs

The language has only a few monomorphemic motion adverbs, like *kavr* 'return' and *bur* 'leave', both of which are also attested as a verb. An example of the use of the former as an adverb is given with *d-ún i kaver* '3SG-take 3SG return' -> 'he took it back' [e]. Whereas the range of monomorphemic motion adverbs is small, the language makes extensive use of polymorphemic motion adverbs, which will receive elaborate attention in Chapter 9 on Space. These polymorphemic adverbs are attested in positions following the verb, and cannot intervene between the verb and its direct object. In this respect they differ from *kavr* and *bur*, which are attested in positions following the object, but which can also intervene between the verb and its object, as such functioning as 'postverbs' (cf. section 4.3.2).

3.7.5 Other adverbs: negative, prohibitive, aspectual and evidential

This section discusses adverbs that cannot be subsumed under the other subgroups. It presents adverbs in the order given in the title of this section.

The Biak language makes a difference between factual negation and imperative negation or prohibitive. Factual negation is marked by *va*, while *awer* is used for imperative negation. The marker *va* is placed after the proposition that it has scope over, in clause- or sentence-final position, as is illustrated in (192) below. This placement of negators in clause-final or sentence-final position is an areal feature (cf. Reesink 2002d: 28-30).

(192) *Sna* *movo* *ro* *diwa*
 s-na mov=o ro di-wa
 3PL.AN-have place=nonSP.SG LOC place-over.there

fa *som* *va.*
 fa s-om va
 CONS 3PL.AN-clear.away not

'They do not have a place there to make a garden (lit. to clear up (a place))'
 [ALau]

Note that the sentence above consists of a main clause *sna movo ro diwa* 'they had a place over there' and a subordinate clause *fa som* 'so that they clear away'. The negative adverb *va* has scope over the entire proposition, and therefore follows the subordinate clause running from *fa* through *som*. Another interesting example of the sentence-final position of *va* is cited in Reesink (2002b:249), taken from the Biak new testament (my own orthography, glosses and translation):

- (193) *Vape* *w-ák-vuk* *neknek-mkun* *oso* *fa* *ya-vuk*
 but 2SG-also-give goat-small INDEF.SG CONS 1SG-give
- i* *d-ák-marisn* *kukr* *manivov* *aye=s-ya* *va.*
 3SG 3SG-also-enjoy with friend 1SG.POS=3PL.AN-SPC not
 'But you have not given me a young goat that I could use it to have fun with my friends.'⁴⁸

Although a detailed discussion of the scope of adverbs would be far beyond the scope of this thesis, a few remarks are in place. The main point is that the position of the negative adverb may give some insight in the relation between two clauses in sequence. Specifically, it should be noted that the conjunction *fa* does not block the scope of *va*, while *vo* and *voi* possibly tend to do so. The relevant data are the following:

- 1) The corpus of spontaneous speech contains at least 12 examples of clauses linked by the conjunction *fa* 'CONS' with *va* in sentence-final position. In eleven cases, *va* has scope over the entire proposition.⁴⁹
- 2) The corpus contains no examples of clauses linked by the conjunction *fa* 'CONS' with *va* in final position of the first clause. Thus, while examples like (194) were attested, no examples were found of *fa*-linked clauses where *va* directly follows the verb of the verb clause (in casu: *marisn*).

- (194) *Voi* *mankroder* *anya* *imarisn* *fa*
 voi mankroder an-ya i-marisn fa
 but frog GIV-3SG.SPC 3SG-enjoy CONS
- denf* *ro* **botol** *anya* *dori* *va.*
 d-enf ro botol an-ya do-ri va
 3SG-sleep LOC bottle GIV-3SG.SPC inside-POS.SG not
 'But the frog did not like to sleep in the bottle.' [FAad]

- 3) The corpus contains at least 6 examples of clauses linked by *vo* 'SIM' or *voi* 'but' with *va* in sentence-final position. In 5 cases, sentence-final *va* has scope over the second clause only, as in the following example, which is part of the concluding section of a radio program in which two people have been talking together:

- (195) *Kuyáwós* *vo* *kuyan* *royo* *va.*
kuy-áwós *vo* *kuy-an* *ro=yó* *va*
 1DU.INC-talk SIM 1DU.INC-eat thing=nonSP.SG not
 'The two of us have talked, and not eaten anything.' [RIey]

⁴⁸ For the use of *vuk* 'give' as heading instrumental constructions compare section 10.12.

⁴⁹ The only example where *va* has scope over the second clause only is the following, given in elicitation:

k~ana~nampu *v<y>e=d-ya* *d-áw* *i* *fa* *d-ák-mám*
 ~RED~short <3SG>POS=3SG-SPC 3SG-arrange 3SG CONS 3SG-also-see

vefnak=s-ya *va*
 REL-play=3PL.AN-SPC not
 'His shortness made that he could not see the players' [el]

Although these data may suggest that *vo* tends to block the scope of *va*, more research is necessary whether alternative readings with *va* having scope over the entire sentence are indeed impossible, or only 'less preferred' or 'less frequent'.⁵⁰ In addition, it should be noted that the use of *vo* 'SIM' / *voi* 'but' tends to co-occur with an intonational boundary, so that it is also possible that an eventual blocking is not inherent to the use of *vo*, but to the use of (*vo* or other conjunctions in combination with) an intonational boundary.

The corpus contains quite a few examples where sentence final *va* is combined with the sentence initial loan *bukan*, which is used in local Malay and Indonesian for the negation of an entire proposition. An example is given with the following sentence:

- (196) *Indya bukan kokain kofafyár biasa va.*
 indya bukan ko-kain ko-fafyár biasa va
 so not 1PL.INC-sit 1PL.INC-tell usual not
 'So we are not (just) sitting and telling here (but have a serious meeting)' [VYhs]

The language uses the *va(n)ím~va(n)im* for 'not yet' and *wer va* 'again not' for 'not any more'. Both are illustrated in the following sentences:

- (197) *Svemnu ro diriwu*
 s-ve-mnu ro di-ri-wu
 3PL.AN-VBLZ-village LOC place-out-over.there

vo skavr wer va.
 vo s-kavr wer va
 SIM 3PL.AN-return again not
 'They became a village out there and did not come back any more.' [TWcq]

- (198) *Sikafkif fa sséwar sarak ine.*
 si-kaf~kif fa s-séwar sarak i-ne
 3PL.AN-RED~pick CONS 3PL.AN-seek bracelet 3SG.SPC-this

Ma sisrow i vanim.
 ma si-srow i vanim
 and 3PL.AN-find 3SG not.yet
 'They (the chickens) pick to find this bracelet. And they have not found it yet.'
 [Mldb]

⁵⁰ In this respect, it is relevant to consider the example where sentence-final *va* has scope over the entire proposition. The speaker wants to express that everything comes from God, and is not due to our own efforts:

Snar ink-aw inko vo inkosmai ro=yo
 because 1PL-arrange 1PL.EX SIM 1PL.EX-have thing=nonSP.SG

ro dunia ine va
 LOC world 3SG.SPC-this not

'For we have not gained anything in this because of our own efforts.' (Lit. 'For we have not arranged and got anything in this world.') [GDam]

As stated above, the prohibitive *awer* has a different distribution from that of *va*. Its use is illustrated in (199) through (201). I found instances of the prohibitive marker in combination with verbs inflected for first (199), second (200) and third person (201).

(199) *Voi komyof setengah awer I*
 voi ko-myof setengah awer i
 but 1PL.INC-defend half PROHIB 3SG
 'But let us not defend it [our area] halfly (i.e. half of our area)' [VYcc]

(200) *Be-ganggu awer aya*
 be-ganggu awer aya
 2.SG.VBLZ-disturb PROHIB 1SG
 'Don't disturb me.' [KSdm]

(201) *Oso vyemnóro*
 oso v<y>e-mnór=o
 SG.INDEF <3SG>VBLZ-mucus=nonSP.SG

ipok vyunk awer mnór vyena.
 i-pok v<y>unk awer mnór v<y>e=na
 3SG-be.able.to <3SG>wipe.off PROHIB mucus <3SG>POS=3PL.INAN.SPC
 'If one has a snotty nose, he is not allowed to wipe off his mucus.' [SKag]

The language has several aspectual adverbs. The adverb *ker* 'continually' and its reduplicated form *kaker* 'still' are found in postverbal position and can intervene between the verb and its object. The adverb *kwar* 'already', on the other hand, is found in clause-final position, and cannot intervene between the verb and its object. *Ker* expresses durativity or iterativity, as in the following example, where it intervenes between the verb and the object:

(202) *Winm ker swán ayedya*
 w-inm ker swán aye=dya
 2SG-drink continually palm.wine 1SG.POS=3SG-SPC

ro rovrovi.
 ro rov~rov=i
 LOC night~night=3SG.SPC
 'You drink my wine time and time again at night' [RAdd]

Kaker expresses the continuance of a state or process, and has the same distribution as *ker*, although examples of transitive verbs, with *kaker* intervening between verb and object, were not attested. An example is given with the following sentence:

(203) *Myun ikák anya fa imar vo,*
 m<y>un ikák an-ya fa i-mar vo
 <3SG>hit snake GIV-3SG.SPC CONS 3SG-die SIM

myun i fa imar voi,
 m<y>un i fa i-mar voi
 <3SG>hit 3SG CONS 3SG-die but

<i>imsór</i>	<i>kaker,</i>	<i>mankoko</i>	<i>nanya</i>	<i>imsór</i>	<i>kaker,</i>
i-msór	kaker	man-koko	an-ya	i-msór	kaker
3SG-angry	still	bird-chicken	GIV-3SG.SPC	3SG-angry	still

<i>mura</i>	<i>dan</i>	<i>ikák</i>	<i>ani,</i>
mura	d-an	ikák	an-i
afterwards	3SG-eat	snake	GIV-3SG.SPC

<i>dan</i>	<i>i</i>	<i>ra</i>	<i>ivro.</i>
d-an	i	ra	i-vro
3SG-eat	3SG	until	3SG-gone

'He killed the snake, he killed him, but he was still angry, the chicken was still angry, therefore he ate the snake, he ate him till he was gone.' [MIcj]

The aspectual adverb *kwar* 'already' differs in distribution from *ker* and *kaker* in that it cannot intervene between the verb and its object, and usually also follows verbal adjuncts. The adverb is historically related to the verb *kwar* 'old', which is also used in nominal compounds. Synchronically, the adverb *kwar* can best be glossed with 'already' and implies something like perfect aspect. It expresses that a past event, having relevance for the present, has (already) taken place, or that a certain state has (already) come about.⁵¹ The verb that it combines with, then, either refers to the past event, or to the state that has come about. A typical example of the former is given with the following sentence:

- (204) *Sumrán kám voi, siwofr afr kwar?*
 su-mrán kám voi si-wofr afr kwar
 3DU-walk all but 3PL.AN-blow lime already
 'The two walk together, but have they blown lime yet?' [eI]

The saying *wofr afr* 'blow lime' refers to a traditional ceremony, taking place during a wedding, in which some people took lime and blew that over the couple's heads. The sentence, then, is a question whether the two have married yet, the ceremony being a good example of a past event with relevance for present. In the following sentences, on the other hand, the verb expresses the present state:

- (205) ***Kovepakai*** *awer wós peper,*
 ko-ve-pakai awer wós pepr
 1PL.INC-VBLZ-use PROHIB word figure.of.speech
- kiasan*** *ke macam macam voi, kirakira*
 kiasan ke macam macam voi kirakira
 figure.of.speech DOUBT sort sort but approximately

⁵¹ 'Present' should be read as 'coinciding with the tense locus'. The tense locus may be the speech moment, but can also be provided by the context.

na mkofawi maksud eba nanya kwar
 na mko-fawi maksud e-ba an-ya kwar
 then 2PL-know meaning REL-big GIV-3SG.SPC already
 'Let 's not use figures of speech and the like, for by now I think you already know more or less what I mean (you have entered into the state of knowing).'
 [BVak]

- (206) *Sufan i rao iba kwar.*
 su-fan i rao i-ba kwar
 3DU-feed 3SG until 3SG-big already'
 'The two took care of him until he was big (had become big)'. [IMak]

In several cases, the verb refers both to the past action and the resultant state, as in (207) below. In principle, the verb *vás* can refer both to the process of opening as to the resultant state. The use of *kwar* indicates that the process of opening has ended and that the resultant state has come about:

- (207) *Buruamkun anine vyás kwar.*
 burua-mkun an-i-ne v<y>ás kwar
 box-little GIV-3SG.SPC-this <3SG>open already
 'This little box has opened already / is open.' [CB_P_41]

The adverb *kwar* is commonly used to close off a story, often in combination with a nominal clause, as in (208) and (209).

- (208) *Mov isofroya isine kwar.*
 mov isofro=ya is-i-ne kwar
 place until=3SG.SPC 3SG.PRED-SPC-here already
 'The place until where (it has come) is this here.' [SKcb]
- (209) *Yamnai ro dine kwar.*
 ya-mnai ro di-ne kwar
 1SG-stop LOC place-here already
 'I stop here.' [KGcd]

3.8 Conjunctions and topic marker

As shown in the third column of Table 19 below, conjunctions are used to conjoin two constituents of the same grammatical type: either two noun phrases, or two clauses. In addition, a number of conjunctions can also conjoin a noun phrase to a following clause, a point I will come back to below.⁵² Several conjunctions show an alternation between a form prefixed with *in* (printed in bold) and a form without this prefix. This may correspond with a difference in distribution, as will be shown in Chapter 10 on interclausal relations. Here we just point to the fact that the form *kukr* 'with', 'because' (which is also used as a preposition) can be used to conjoin either two noun phrases or two clauses, whereas the form *inkukr* can only join clauses.

⁵² As will be explained in 10.6, these markers are used in final position of a preclausal frame.

Table 19 Conjunctions

form	meaning	conjoins
<i>ma</i>	'and'	2 NP's, 2 clauses
<i>kukr(u)</i>	'with', 'because'	2 NP's, 2 clauses
<i>inkukr(u)</i>	'because'	2 clauses
<i>(in)fa</i>	'so that' ⁵³	2 clauses
<i>ra</i>	'until'	2 clauses
<i>rawo ~ rao</i>	'until'	2 clauses
<i>rya/ indya (= in+rya)</i>	'so'	2 clauses
<i>vo</i>	'while', 'and' (glossed as SIM)	2 clause / NP + clause
<i>voi</i>	'but'	2 clauses / NP + clause
<i>imboi (= in + voi)</i>	'but'	2 clause
<i>(in)(fa)+ sama(+ ido)</i>	'so that'	2 clauses
<i>(fa) + (in) sama(+ ido)</i>	'so that'	2 clauses
<i>insamande</i>	'so that'	2 clauses
<i>fa + samande</i>	'so that'	2 clauses
<i>(in)fama</i>	'but', 'however'	2 clauses
<i>vape, imbape (in + vape)</i>	'but'	2 clauses
<i>vesya + vo, imbesya + vo</i>	'nevertheless'	2 clauses
<i>vesya + fa</i>	'so that'	2 clauses
<i>(in)kurvoi</i>	'but'	2 clauses
<i>(in)sape</i>	'afterwards', 'then'	2 clauses
<i>kada</i>	'suppose that'	2 clauses / NP + clause
<i>ido</i> [i'do]	'THEM', 'when'	2 clauses / NP + clause
<i>indo</i>	'then'	2 clauses
<i>mura (+ido)</i>	afterwards	2 clauses
<i>ra + (i)mnai 'stop' (+ ido)</i>	'then'	2 clauses
<i>va, imba (= in + va)</i>	'because'	2 clauses

Some of the conjunctions in the table above are grammaticalized forms of phrases, like *rya* 'so', which is a grammaticalized form of *r<y>a* '<3SG>go' 'it (the story) goes (proceeds)' or *ramnaido* which stems from *ra i-mnai ido* 'until 3SG-stop when' -> 'until when it stops.' A more detailed account of conjunctions will be given in 10.6 through 10.9, where we will study in depth their semantics, syntax and relation to members of other categories.

With respect to their distribution, it suffices to state here that most conjunctions are found both in prepausal and postpausal position. Prepausal position usually coincides with clause-final position, as is the case for *indya* in the following example:

(210)	<i>Rovean</i>	<i>kovannane</i>	<i>navro</i>
	rovean	ko-v=an-na-ne	na-vro
	food	1PL.INC-POS=GIV-3PL.INAN.SPC-this	PL.INAN-gone
	<i>ro</i>	<i>swan</i>	<i>ine</i>
	ro	swan	i-ne
	LOC	sea	3SG.SPC-this
			<i>indya</i> ,
			indya
			so

⁵³ All conjunctions that according to the table have 'so that' as their meaning are considered consecutive markers, and glossed as such (CONS), cf. 10.5.1.

mkokara rosa kákani.
 mko-kara ro-sai k^u-ák-an=i
 2PL-think thing-which 1PL.INC-eat-3SG.SPC
 'This food of ours has gone in this sea, so you should think what we should eat then.' [MBdw]

Postpausal position usually coincides with clause-initial position, as is the case for *indo* 'then' and *indya* 'so' in the following example:

(211) *Ifukn vo dóve: "bapa, apa itu?"*
 i-fukn vo d-óve bapak apa itu
 3SG-ask SIM 3SG-say mister what that

Indo yasamberno "A itu nangka."
 indo ya-samborn=o A itu nangka
 then 1SG-fast=O Ah, that jackfruit

Indya nuyék taksi nanya kwar.
 indya nu-ék taksi an-ya kwar
 so 1DU.EX-go.up taxi GIV-3SG.SPC already
 'He asked: "Sir, what's that?" So I answered rapidly: "Oh, that's a jackfruit!"
 So we had stepped into that taxi' [MBhs]

Compared to prepausal *indya* in (210), postpausal and sentence-initial *indya* in (211) seems to operate on macro-level, while prepausal *indya* has more like a micro-level structuring function. Finally note that the language also contains conjunctions that are neither preceded nor followed by a pause. This is the case for *vo* in the frequent construction *i-kofn vo d-óve* '3SG-speak SIM 3SG-say' -> 'he spoke and said', which is also found in (211) above.

We now come back to those conjunctions that are not only used to conjoin two clauses, but also to conjoin a noun phrase to a following clause. As such, these conjunctions take the final position of a preclausal frame, which sets the scene for the clause to come (cf. 10.6 and the discussion of *ido* below). While for some of the conjunctions frame-final position is just one of the possible positions, the rest of this section discusses two conjunctions that have developed into markers of this frame-final position.

First, the language uses the conjunction *ido* 'THEM', which is also found in temporal-conditional clauses, in which case it is attached to the right border of the clause. This merger of two apparently different functions is found across languages, which shows that it is not mere co-incidence. It is also found in local Malay and has been described for Malayu Ambong by Van Minde (1997:287), who refers to Haiman (1978). Both in its function as a topic marker and as a temporal-conditional the marker *ido* presents the constituent to which it attaches as given in relation to the rest of the sentence. This 'given' constituent, then, provides a framework in which the rest of the clause is to be interpreted. When attached to a noun, this noun often forms the Theme of the rest of the clause, in the sense that it tells 'what the sentence is about'. The head of the pre-clausal noun phrase may but need not correspond to an argument of the main clause. Consider the following sentences. In (212), the head of the NP is formed by *mama Hendrik snar su* 'Hendrik's mother and he'. This NP has the same referent as the subject of the main clause, which is expressed by the pronominal prefix *su* '3DU' on the verb. In (213), the referent of the noun phrase *ine* '3SG-this' corresponds to the referent of *i* '3SG' in the main clause and refers to the instrument used:

ibur *wer.*
 i-bur wer
 3SG-leave again
 'The following day again, he went down (to the sea) to (float and) leave again.'
 [MSiz]

As to its form, it should be remarked that *ido* is realized as [nido] in certain but not all postvocalic positions. The precise distribution of the realizations [ido] and [nido] in postvocalic positions awaits further investigation.⁵⁴ I have chosen not to show the variation in the spelling.

Another marker attached to noun phrases is *ma*. In about half of all cases of *ma* combining with an NP, it functions as a marker of contrastive topics. It is questionable, whether this marker *ma* is still synchronically relatable to the homophonous conjunction *ma*. I would be inclined to consider the marker *ma* as having developed into a topic marker, with a function that is not directly relatable to that of the conjunction. Not only does it differ in its distribution from the conjunction *ma* that conjoins clauses, it also has quite a different pragmatic function. While the conjunction *ma* simply coordinates two phrases or clauses of equal pragmatic status (the one not being more prominent than the other, cf. 10.), the topic marker has a clear pragmatic function: it serves to set off the noun phrase to which it attaches from other noun phrases. In about half of the attested cases, the (role of the) topic referent is contrasted to (the role of) one or more other referents.⁵⁵ In the following sentence, we find an explicit contrast between the 'this woman (*evevin inema*), marked with the topic marker *ma*, and 'this man' (*evesnon ine*).

(217) *Evevín* *ine* *ma* *imnai* *kwar,*
 e-ve-vín i-ne ma i-mnai kwar
 REL-VBLZ-female 3SG.SPC-this TOP 3SG-stop already

evesnon *ine* *eséwar* *kakeri.*
 e-ve-snon i-ne e-séwar kaker=i
 REL-VBLZ-male 3SG.SPC-this REL-seek still=3SG.SPC
 'The woman has stopped (studying) already, but the man is (the one who is) still studying.' [ASar]

In (218) below, the contrast is more implicit, but still very clear from the context. The sentence is part of a story in which a monkey and a turtle both have a banana shoot that they want to plant. In the following sentence, the monkey contrasts his own choice to plant the shoot at the beach with the possible choice of the turtle. It could be freely paraphrased as 'no matter what *you* want to do, but *my* shoot I 'm going to plant at the beach!'

⁵⁴ Specifically, it would be interesting to compare the distribution of [ido] vs. [nido] to that of the separator *n* that is used in relative clauses (cf. 10.3.3). In case the contexts of the use of [nido] are identical to those in which the separator *n* is used, *nido* could be analyzed as *n=ido* 'SEP=THEM'.

⁵⁵ As Lambrecht explains, it is important to distinguish between contrastive focus and contrastive topics. A speaker uses contrastive *focus* to correct a presupposition that he or she assumes to be held by the addressee(s) (Lambrecht 1994: 291v). From the examples above, it is clear that Biak *ma* does not correct a supposed addressee's presupposition, but simply sets off a certain topic from one or more other topics.

- (218) *Aya* *ma* *imbe* *yaker* *i*
 aya ma imbe ya-ker i
 1SG TOP be.about 1SG-plant 3SG

ro *yén* *andíre!*
 ro yén andír
 LOC sand side

'I am going to plant it (the banana shoot) at the beach!' [KSak]

Not in all cases, however, is the topic contrastive. The following sentence is part of a woman's speech, arguing that no part of the village should be given up. She mentions each distinct part of the village, putting the name in preclausal position and marking it with *ma*:

- (219) *Yór* *ro* *romawa* *inai* *nanmkoine* *fa*
 y-ór ro romawa inai an-mko-i-ne fa
 1SG-ask.for LOC son daughter GIV-2PL-SPC-this CONS

Wardo *i* *ma* *korir* *awer* *i*
 Wardo i ma ko-rir awer i
 Wardo 3SG FOC 1PL.INC-let.loose not 3SG

Batesda *i* *ma* *korir* *awer* *i*
 Batesda i ma ko-rir awer i
 Batesda 3SG FOC 1PL.INC-let.loose not 3SG

Betel *ma* *korir* *awer* *i#*
 Betel ma ko-rir awer i
 Betel TOP 1PL.INC-let.loose not 3SG

'I ask you sons and daughters so that Wardo, let's not drop it, Batesda, let's not drop it, Betel, let's not drop it.' [VYlo]

3.9 Numerals

3.9.1 Cardinals

Like most Austronesian languages, Biak has a decimal numeral system. The main cardinal numbers are given in Table 20. The last column of the table shows the proto-Austronesian numbers, based on Ross (1995).

Table 20 Biak cardinal numbers

Nr	Numbers	Example in attributive position	Proto-Austronesian
1	<i>eser/oser</i>	<i>mov eser</i> 'one place' (* <i>mov ri eser</i>)	*asa / * ⁷ esa / *isa
2	<i>suru</i>	<i>snonkaku ri suru</i> 'two men'	*duSá
3	<i>kyor</i>	<i>syos ri kyor</i> 'three groups'	*telu
4	<i>fyak</i>	<i>inai ri fyak</i> 'four daughters'	*Sempat
5	<i>rim</i>	etc...	*limá
6	<i>wonem</i>		*enem
7	<i>fik</i>		*pitu
8	<i>war</i>		*walu
9	<i>siw</i>		*siaw
10	<i>samfur</i>	<i>buku ri samfur / buku samfur</i> 'ten books'	*puluq
11	<i>samfur sesr oser</i>	<i>buku samfur sesr oser</i>	
12	<i>samfur sesr di suru</i>	etc	
13	<i>samfur sesr di kyor</i>		
20	<i>samfur di suru</i>		
21	<i>samfur di suru sesr oser</i>		
24	<i>samfur di suru sesr di fyak</i>		
30	<i>samfur di kyor</i>		
100	<i>utin</i>		
911	<i>utin di siw samfur sesr oser</i>		
1000	<i>syáran</i>		
10.000	<i>syáran samfur</i>		
1.000.000	juta		

Most of the numbers can easily be related to proto-Austronesian numbers, according to the phonological innovations given in Ross (1995: 84). Ross describes the following relevant innovations from proto-Malayo-Polynesian (which is largely similar to PAN) to proto-South-Halmahera Western New Guineic (proto-SHWNG): **p* > **f*, penultimate **e* > **o*, final syllable **e* merged with final syllable **a* as proto-SHWNG * , **q* was lost. In addition, to account for *k* in *kyor* 'three', *fyak* 'four' and *fik* 'seven', one needs the phonological innovation **t* > *k*. Further SHWNG **l* relates to Biak *r*.

In giving a number, one mentions first how many units of the highest power of ten the number consists of, then the same for one power lower, again one lower, until one has reached the simple units of 1 till 10. To connect the millions with the thousands, the thousands with the hundreds and the hundreds with the tens, one uses simple juxtaposition. To combine the tens with the simple units of 1 till nine, one uses the words *sesr* or *sesr di*. The word *sesr* can be analyzed as a noun, related to the word *eser* 'one', and be translated as 'unit'. The word *di*, on the other hand, is an allomorph of the *ri* that links numerals with the noun that they modify, as we will see below. This analysis explains why the word for 'eleven' is *samfur sesr eser*, without the numeral linker *ri*, whereas the word for 'twelve' is *samfur sesr ri suru*. The numeral linker *ri* is not used to link a noun with the number *eser*, but only for the linking of a noun with one of the numbers two till nine. The words for 'eleven', 'twelve', 'twenty four' and 'nine hundred eleven', then, can be analyzed as follows:

- (220) *Samfur* *sesr* *oser*
 ten unit one
 'Ten (and) one unit' -> 'eleven' [TWga]
- (221) *Samfur* *sesr* *ri* *suru*
 samfur sesr *ri* suru
 ten unit NUM.LNK two
 'Ten (and) two units' -> 'twelve' [TWfy]
- (222) *samfur* *ri* *suru* *sesr* *ri* *fyak*
 samfur *ri* suru *sesr* *di* fyak
 ten NUM.LNK two unit NUM.LNK four
 'Two tens (and) four units' -> 'twenty four' [el]
- (223) *utin* *ri* *siw* *samfur* *sesr* *oser*
 utin *di* siw samfur *sesr* oser
 hundred NUM.LNK nine ten unit one
 'Nine hundreds (and) ten (and) one unit' -> 'nine hundred eleven' [el]

As can be seen in the last column of Table 20, in attributive position the cardinal numbers up to and including nine - except *eser~oser* 'one' - are linked to the preceding noun by the numeral linker *ri*. The numeral *eser~oser* 'one' can only modify the noun by simple juxtaposition, while the numeral *samfur* 'ten' can be linked by simple juxtaposition or by the numeral linker *ri*. Numbers higher than ten can only be linked with the preceding noun by juxtaposition.

The numerals can also be used pronominally, as in the following examples (*suru* in (224) and *esero* in (225).

- (224) *Suru* *sudo* *epon* *ra* *imnai,* *suru wer.*
 suru su-do e-pon ra i-mnai suru wer
 two 3DU-go.down REL-first until 3SG-stop,end two again
 'Two go down as the first until it is finished, then two again.' [ZKaz]
- (225) *Esero* *kyar* *mónda* *fa* *vye**f**oto.*
 eser=o k<y>ar mónda fa v<y>e-foto
 one=nonSP.SG <3SG>cut- just CONS <3SG>VBLZ-photograph
 'Just let one cut sago so that he can take a picture.' [ASci]

The word *eser~oser* is not only used as a numeral, but also as a marker of indefiniteness: pronominally it functions as an indefinite pronoun, while adnominally it can function as an indefinite article, as described in 3.2.3 above.

Numerals are the only words that can be further modified by the adnumeral *bakn* 'only', which as a noun has the meaning 'trunk'. The use of *bakn* modifying a numeral is exemplified in (226).

- (226) **Hanya** *kéret ri* *suru bakn* *suya*
 hanya kéret ri suru bakn su=ya
 only clan NUM.LNK two only 3DU=SPC

evebuka *mnu inensui.*
 e-ve-buka mnu i-ne=n=su-i
 REL-VBLZ-open village 3SG.SPC-this=SEP=3DU-SPC
 'Only these two clans (are the ones who) have opened this village.' [KGbs]

3.9.2 Ordinal numbers

Ordinal numbers are formed by combining the numeral with the morphologically complex element *veve*, which directly precedes the numeral. Nothing can intervene in between this complex element *veve* and the following numeral. For 'first' however, the form *vepon* 'REL-first' is suppletive for the non-existing form **veveser*. For 'last', the Biak language uses *vepups* 'REL-last'.

The construction *veve*+Num is probably best analyzed as a relativizer *ve*, followed by the verbalizer *ve* that turns the numeral into a verb.⁵⁶ We thus simply find a noun, followed by a relativizer *ve*, followed by a verbal predicate, which happens to be formed on the basis of a numeral that is verbalized by means of *ve*. While the meaning of a verbalized numeral can be described by 'be NUM', its interpretation is dependent on whether it is used as an inflected verb or in attributive position modifying a noun. As a verbal predicate inflected for number and person of the subject, it refers to the number of units constituting a group, as in (227).

- (227) *Skovekyor.*
 sko-ve-kyor
 3PC-VBLZ-three
 'They are three (persons).' [S_T_062]

When preceded by the relativizer *ve-*, however, it functions as an ordinal number. The relative clause may have an explicit (nominal) head as in (228) or be headless as in (229). This relative clause can also be used adverbially, in enumerations: 'in the first place', 'in the second place' etc., as in (224) above.

- (228) *Rama vevesuru* *vyedy*
 rama ve-ve-suru v<y>e=d-ya
 coming REL-VBLZ-two <3SG>POS=3SG-SPC
 'His second coming' [KMbe]

⁵⁶ Note, however, the striking analogy to the local Malay or Indonesian construction. In local Malay, the ordinals are formed by the relativizer *yang* followed by *ke*, which is homophonous with the preposition *ke* 'to'. In analogy, we might analyze the Biak construction as consisting of a relativizer *ve* followed by a preposition *ve*. Compare the local Malay *yang ke dua* 'REL-KE-two' with the Biak *ve ve suru* 'REL-VE-two'. The problem in analyzing the second *ve* as a preposition, however, is that the relativizer *ve* usually combines with verbs, not with words from other categories (except in compounds) and never with the preposition *ve*. But even if we do not analyze the second *ve* as a preposition (but as a verbalizer, as suggested above) the *ve* remains homophonous with the preposition *ve* 'to' and therefore analogous to the local Malay or Indonesian constructions.

- (229) *Evekyoryano* **rupaya.**
 e-ve-kyor=ya=no rupa=ya
 REL-VBLZ-three-3SG.SPC=also form=3SG.SPC
 'The third (group) was the same.' [MSdu]

Third, adverbially, the combination *VBLZ+num* indicates the number of times in which the main event takes place, as illustrated in (230) and (231) below.⁵⁷

- (230) *Kofes* *na* *vekyor.*
 ko-fes na ve-kyor
 1PL.INC-tie 3PL.INAN VBLZ-three
 'We tie them three times.' [ZKaj]

- (231) **Rusa** *nanya* *kyankunm* *ve-esser,*
 rusa an-ya k<y>ankunm ve-esser
 deer GIV-3SG.SPC <3SG>bow VBLZ-one

supyas *kám* *rarvav.*
 su-pyas kám rar-vav
 3DU-fall.with.face.down all to.o.there-down
 'The deer bent once, and they both fell down (from its head).' [FFca]

As stated above, the ordinal numeral *vepon* is suppletive for **veveeser*. Now compare the different uses of *pon* with those of *eser*: as an inflected verbal predicate in (232) and (233) and in attributive position in (234) and (235).

- (232) *Sipon.*
 sipon
 3PL.AN-first
 'They are first' [el]

- (233) *Se-esser*
 se-esser
 3PL.AN.VBLZ-one
 'They are one' [MSgy]

- (234) *Syos epon naine*
 syos e-pon na-i-ne
 level REL-first 3PL.INAN-SPC-this
 'These first groups' [MSrk]

- (235) * *Syos* *veve-esser* *naine*
 syos ve-ve-esser na-i-ne
 level REL-VBLZ-one 3PL.INAN-SPC-this
 * 'These first groups' [el]

⁵⁷ Interestingly, in Mpur, the ordinal numbers except the ordinal for 'first' are compounds of *saso* 'time' and a cardinal number (Ode (2002: 83). The Biak construction comes very close to this, except that I do not think that the word *ve* as such has the meaning 'time'. It simply has this interpretation when used adverbially in combination with a numeral, as in (230) and (231).

3.10 Quantifiers

While strictly spoken the numerals also belong to the group of quantifiers, for expository reasons these were discussed in a separate section. The words discussed in this section are grouped together on semantic grounds; although all the words discussed express 'quantity', formally they are quite different. While the quantifiers *vésó* 'several' and *fis* 'how much' behave like numerals, the concept 'many' is expressed by a verb, while the concept 'all' is expressed by *kám*, whose distribution will be shown below. This section presents the several quantifiers one by one and for each quantifier offers a number of examples.

Although the quantifier *vésó* can probably historically be segmented into *ve* and *so*, it is not easy to synchronically relate the meaning and function of *vésó* to one of the functions of *ve* or *so*. Note, however, that the quantifier ends in *-o*, which makes it similar to the indefinite pronouns discussed in 3.2.3. As stated just above, the markers *vésó* 'some' and *fis* 'how much' behave like numerals in that they follow the noun and are linked to the noun by the numeral linker *ri* (cf. section 3.9, but also footnote 19 at the discussion of question words in 3.2.4). This is illustrated in (236) and (237):

(236) *Ras ri véso skánde kwar.*
 ras ri vesó sk^h-ánde kwar
 day NUM.LNK several 3PC-past already
 'Some days had past already.' [Mica]

(237) *Ras ri fis*
 ras ri fis
 day NUM.LNK how.much
 'How many days' [el]

The interrogative quantifier *fis* can also be used as head of a predicate, as in the following example:

(238) *Kakaki vyedya fis?*
 ka~kaki v<y>e=d-ya fis
 RED~long <3SG>POS=3SG-SPC how.much
 'How high is it (e.g. this tree).' [el]

The concept 'many' is expressed by the verb *“bór* 'many'.⁵⁸ Just like a normal verb, it can be used both predicatively and attributively, in the latter case prefixed with the relativizer *ve*. Sentences (239) through (241) illustrate the predicative use:

(239) *Ro dine, Wardo, Yembisesya*
 ro di-ne Wardo Yembise=s-ya
 LOC place-this Wardo Yembise=3PL.AN-SPC

⁵⁸ The μ preceding *bór* indicates that the prefix preceding the verb μ -*bór* will be long and therefore stressed. Compare section 2.5.2. The verb μ -*bór* is remarkable in that it has an initial floating mora, but does not alternate with an a-initial root *ábór*.

síbóre.

si-^hbór

3PL.ANIM-much

'Here, in Wardo, there were many Yembise's (lit. the Yembise's were many).'

[BMam]

- (240) *Yaraswan vo yana ínsya síbóre.*
 ya-ra-swan vo ya-na ín=s-ya si-^hbór
 1SG-go-sea SIM 1SG-get fish=3PL.AN-SPC 3PL.AN-much
 'When I go fishing, I have many fish (lit. I have fish they are many).' [MMgq]

- (241) *Ras epondyá yún fa síbór kurvoi (...)*
 ras e-pon-rya y-ún fa si-^hbór kurvoi
 day REL-first-ANAPH 1SG-take CONS 3PL.AN-many but
 'A day ago I took many (nails) with me (lit. I took (the nails) so that they were many),
 however (...)'
 [YWek]

As an attributive marker, the verb ^hbór introduces an NP-internal relative clause. Examples are given with sentence (242) and (243).

- (242) *Sikaru [srai [vébór*
 si-kar=u srai ve-^hbor
 3PL.AN-fell=U coconut REL-much
- vero myós Wundi]_{relative.clause}^{na}_{determiner}NP.
 ve-ro myós Wundi=na
 REL-LOC island Wundi-3PL.INAN.SPC
 'They felled the many trees that were at Wundi.' [MMin]*

- (243) *Inow vraminsya ve*
 i-now vramin=s-ya ve
 3SG-lift arm=3PL.AN-SPC to
- [mankroder [ébór]_{rel.clause} *ansya]_{NP}.
 mankroder e-^hbór an-s-ya
 frog REL-many GIV-3PL.AN-SPC
 'He lifted his hand(s) towards the many frogs.' [FPeu]**

The concept 'all', finally, is expressed by the word *kám(e)*.⁵⁹ It is a modifier of the noun phrase, and is often adjoined to the right border of the noun phrase, following the determiner that closes off the noun phrase. In this respect the modifier *kám* differs from all other possible noun modifiers, which are either part of the determiner or placed in between the noun and the determiner. The following sentences illustrate the placement of *kám* directly after the determiner closing off the NP.

⁵⁹ As discussed in Chapter 2, words ending in V_{long}C get *e* epenthesized in *I*-final position but do not have *e* in other positions. The formative under discussion here differs from other words ending in V_{long}C in that the final *e* is also regularly realized in other than *I*-final positions. One could state, then, that the lexicon contains two allomorphs, *kám* and *káme*, which can be used interchangeably in all positions, the former realized as [kám] or [káme] dependent on its position, the latter invariably realized as [káme].

- (244) [*ín*_{noun} *évese* [*nansya*]_{det}]_{NP} *káme* *se-setujuh.*
 ín e-vese an-s-ya káme se-setujuh
 fish REL-other GIV-3PL.AN-SPC all 3PL.AN.VBLZ-agree
 'The other fishes all agreed.' [MBes]
- (245) [*Rumna*]_{NP} *káme* *naki.*
 rum=na káme na-ki
 house= 3PL.INAN.SPC all 3PL.INAN-drift
 'All houses drifted away.' [GSap]

When the NP consists of a free pronoun only, the quantifier *kám* directly follows the pronoun, as in the following examples. The second *kám* in (247) is an example of a floating *kám* to which we will come back below.

- (246) *Si kám semambri.*
 si kám se-man-vri
 3PL.AN all 3PL.AN.VBLZ-male-angry
 'They were all heroes.' [BMbw]
- (247) *Mko kám mko kám, mkove mkokarm i káme!*
 mko kám mko kám mko-ve mko-karm i kám
 2PL all 2PL all 2PL-want 2PL-answer 3SG all
 'You all, you all, you all answer it!' [MBft]

In all of the attested cases in which the quantifier modifies the pronominal prefix on the verb, it is used in postverbal position. It need not directly follow the verb, however, but can also occur in other positions, 'floating' in the clause. Some illustrations are the following:

- (248) *Sumám kám mankroder anivav.*
 su-mám kám mankroder an-i-vav
 3DU-see all frog GIV-3SG.SPC-down
 'The two both saw the frog below.' [Fyaf]
- (249) *Nkoso i káme.*
 nko-so i kám
 1PL.EX-accompany 3SG all
 'We all accompany him.' [MBfw]

In case the quantifier modifies the object, it may either precede or follow the object. Sentences (250) and (251) are illustrations of the quantifier preceding the object that they modify. The latter sentence also shows how the quantifier *kám* can also designate 'one entity as a whole' rather than the total collection of entities.

- (250) *Yafár kám i va.*
 ya-fár kam i va
 1SG-tell all 3SG not
 'I have not told all of it.' [RAcm]

- (251) *Dorn* **kám** *na* *ra* *navro*.
 d-orn kam na ra na-vro
 3SG-swallow all 3PL.INAN until 3PL.INAN-gone
 'He swallowed all (food) until it was gone' [KOfm]

In the following two examples, however, the quantifier follows the object that it modifies. The two sentences are subsequent sentences of the same speech. The second sentence makes clear that *kám* in the first sentence is a modifier of *i* '3SG', coreferential with *Wardo ine* 'this Wardo' in the preclause, and not as modifier of *ko* '1PL.INC'.

- (252) *Insamaido,* *ido* *komyof* *saprop* *ine,*
 insama ido ko-myof saprop i-ne
 CONS THEM 1PL.INC-defend land 3SG.SPC-this
- Wardo* *ine* *ido,*
 Wardo i-ne ido
 Wardo 3SG.SPC-this THEM
- kaku* *veri* *komyof* *i* *káme.*
 kaku veri ko-myof i kám
 true precisely 1PL.INC-defend 3SG all
 'So that when we defend this land, this Wardo, let us really defend all of it.' [VYcb]

- (253) *Voi* *komyof* **setengah** *awer* *i,*
 voi ko-myof setengah awer i
 but 1PL.INC-defend half PROHIB 3SG

voi *komyof* *kaku* *i* *kám* *fa* ...
 voi ko-myof kaku i kám fa
 but 1PL.INC- defend true 3SG all CONS

'And let us not defend half of it, but let 's really defend all of it, so that ...'
 [VYcc]

As to the scope of *kám*, especially in its relation to the scope of *va* 'not,' further research needs to be done. I have some minimal pairs, however, like the following:

- (254) *Sibur* **kám** *va.*
 si-bur kám va
 3PL.AN-leave all not
 'Not all have left.' (i.e. 'some have left') [el]

- (255) *Sibur* *va* **káme.**
 si-bur va kám
 3PL.AN-leave not all
 'All of them have not left' (i.e. 'none of them have left') [el]

The last form to be mentioned is the reduplicated form of *eser~oser* 'one'. It is used pronominally or adnominally and has either a plural indefinite or a distributive reading. The plural indefinite reading is illustrated in (256), while (257) and (258) illustrate the distributive reading:

- (256) *Yáwós* *ro* *varpon* *kawasa* *vo*,
y-áwós *ro* *var-pon* *kawasa* *vo*
 1SG-speak LOC side-front people SIM
- kirakira** *roro* **warga** **jemaat**,
 kirakira *roro* *warga* *jemaat*
 approximately LOC member church
- eser-eser* *sisya* *fa* *sifawi* *syadi* *aya*.
 eser-eser *si-is-ya* *fa* *si-fawi* *syadi* *aya*
 one-one 3PL.AN-PRED-that CONS 3PL.AN-know more 1SG [PDdp]
 'I speak in front of people, but probably there are several among the church members
 who know more than I do.' [PDdp]

- (257) **Eser-eser** *wabur* *ra*
 eser-eser *wa-bur* *ra*
 one-one 2SG-leave until
- pamper* *per* *ro* *rum* *bedya*.
 pan-per *per* *ro* *rum* *be=d-ya*
 2SG.touch open LOC house 2SG.POS=3SG-SPC
 'Each of you go home and think about it (lit. untie it) in your own house.' [MBgx]

- (258) *Oser-oser* **betanggungjawab** *fararúr* *bena*.
 oser-oser *be-tanggungjawab* *f~ara~rúr* *be=na*
 one-one 2SG.VBLZ-responsible RED~make 2SG.POS=3PL.INAN.SPC
 'Each of you, you are responsible for your own deeds.' [KMba]

3.11 Question words and marker of doubt

This section discusses question words that are used for polar questions. Question words used for content questions are not given here, because they can be subsumed under other word classes.

Polar questions can be formed without any question markers, as long as the intonation is rising. It is also possible to use one of the question markers *ke* or (*n*)*e*, however. While *ke* always co occurs with special intonation, this is optional for (*n*)*e*.

The question word *e*, with an allomorph *ne* used after vowels, marks an explicit request for information. From the attested examples it seems that the use of *e* indicates that the speaker expects a positive answer from the side of the addressee. It is attested in clause-final position only:

- (259) *Inoi* *ine* *ipupe?*
 inoi *i-ne* *i-pup=e*
 knife 3SG-this 3GS-blunt-QST
 'Is this knife blunt?' [el]

- (260) *Imbo, kirakira na wamarisn i-wane?*
 imbo kirakira na wa-marisn i-wa=ne
 indeed approximately then 2SG-enjoy 3SG.SPC-over.there=QST
 'Okay, then maybe that is what you like?' [MSnt]

- (261) *Napirm awsyane?*
 napirm aw-s-ya=ne
 cross-cousin 2SG-PRED-that=QST
 'Cousin, is it you?' [MBge]

The question word '*ine*', with stress on the first syllable and rising intonation, asks for agreement from the side of the addressee. It can probably be analyzed as a 3SG pronoun *i* followed by *e*:

- (262) *Yafafyár fa wákrower, ine?*
 ya-fafyár fa w-ák-rowr i=ne
 1.sg-tell CONS 2SG-also-listen 3SG=QST
 'I tell so that you also listen, okay?' [TWab]

The most frequently attested question particle is *ke*, which in all of the attested cases is accompanied by a non-falling intonation contour. Its primary function is to express uncertainty or doubt from the side of the speaker, while the speaker does not necessarily expect an answer from the side of the addressee. Syntactically, *ke* is attached to the right border of a clause, or to the right border of a noun phrase. As such, it has scope over the constituent that it is attached to. In clause-final position, then, the speaker puts the truth value of the entire proposition in doubt, as is illustrated in (263) and (264) below. While the speaker in (263) does not expect a reaction from the side of the addressee, she does so in (264). In this sentence, the speaker asks carefully if the addressees, who are in a canoe, can pick her up so that she can join them.

- (263) **Kapalya** *syun indya insape*
 kapal=ya s<y>un indya insape
 ship=3SG.SPC <3SG>enter so then

na siso ke?
 na si-so ke
 then 3PL.ANIM-accompany DOUBT
 'A ship comes in [today] so will they then be on it?' [YWap]

- (264) *Da mkora ma yaso ke?*
 da mko-ra ma ya-so ke
 may.be 2.PL-go to.here 1SG-accompany DOUBT
 'Can you please come so that I go with you?' (Lit. 'Maybe you come here I follow?')
 [KOcf]

When attached to an NP, *ke* has scope over the entire NP. As such, it expresses doubt with respect to the (precise) identity of the referent. In the following sentence, then, it is clear that there is someone going to the sea, but the speaker puts his or her identity in doubt:

- (265) *Kpu Insar, kpu ke rya nda.*
 kpu in-sar kpu ke r<y>a r-ra
 kin.±2 Woman-old kin.±2 DOUBT <3SG>go to.o.there-sea
 'A grandmother, maybe (it was) a grandparent (that) went seawards.' [MSpz]

When the NP with attached *ke* is uttered in isolation, it functions as an entire proposition. The following sentence is part of a conversation that interrupted the narration of the Manarmaker myth. The narrator had just told how Manarmaker wants to visit his nephew Padawankan in the village Samber. At this point, one of the listeners interrupted, questioning whether it was really Padawankan whom Manarmaker paid a visit to, because he thinks Padawankan does not live in Samber, but in Mokmer. At that point, the narrator also doubts whether he is right and reacts:

- (266) *Padawankan ... Padawankani ke,*
 Padawankan ... Padawankan=i ke
 Padawankan ... Padawankan=3SG DOUBT
- Korapi ke?*
 Korapi=i ke
 Korapi=3SG DOUBT
 'Maybe (it was) Padawankan, maybe Korapi?' [MSif]

In nearly half of all the attested cases in the corpus, *ke* is part of a disjunctive enumeration, as in (266) above and (267) through (269) below. Sentence (267) is part of a story in which a preacher is summoned by a member of his audience to go down from the pulpit. This confuses the old man and makes him doubt what he should do.

- (267) *Vye mansar anya rao vye**bingung**,*
 v<y>e man-sar an-ya rao v<y>e-bingung
 <3SG>give male-old GIV-3SG.SPC until <3SG>VBLZ-confused
- ive fyár ke, ive ído ke.*
 i-ve f<y>ár ke i-ve i-^udo ke
 3SG-want <3SG>tell DOUBT 3SG-want 3SG-descend DOUBT
 'It made the old man (preacher) confused until ... should he tell, or should he go down?' [MBbh]

- (268) *Na min sa yákv**pilih**? Golkarya,*
 na min sai y-ák-ve-pilih Golkarya
 then member which 1SG-also-VBLZ-choose Golkar-3SG.SPC
- PDI**ya ke, **P3**i?
 PDI=ya ke P3=i
 P3=3SG.SPC DOUBT P3=3SG.SPC
 'Which party should I again choose then? Golkar, PDI, P3?' [MBgl]

(269)	<i>Sfarkor</i>	<i>mko</i>	<i>ke</i>	<i>orov?</i>
	s-farkor	mko	ke	orov
	3PL.AN-teach	2.PL	DOUBT	no
	'Have they taught you or not?' [PDed]			

Biak *ke* is related to Ambai clause-enclitic *te* (for $k < *t$ see section 2.1.1), which is classified by Silzer as a marker of possibility (Silzer 1983:213). A question marking enclitic *e* is not only found in Ambai, but also found in several non-Austronesian languages of the Bird's Head like Hatam (Reesink 1999:60), Sougb (Reesink 2002: 239) and Mpur (Odé 2002: 67), while Meach uses the diphthong *ei* (Gravelle 2005: 332).

3.12 Interjections and exclamations

Most interjections and exclamations predominantly have what could be called an 'interpersonal' function. They are used to express oneself (not too) straightforwardly, to stress the truth of one's utterance, to express agreement or disagreement with another partner in the conversation etc. Whereas exclamations form clauses or even sentences on their own, interjections are remarkably variable as to their position in the clause. This section lists the main interjections and exclamations, and illustrates most of them with a number of examples.

The interjection *imbo* 'indeed' is found predominantly in direct speech. If it is found in narratives, it is used either in quoted speech, or when the narrator 'steps out of the story' and talks directly to his addressees. By using *imbo*, a speaker either expresses agreement with the words of another speaker, or expresses that his own words are in agreement with what is generally accepted as true. In doing an appeal to 'what is generally accepted as true' the speaker draws his addressees into the story and expects them to agree. Consider the following examples:

(270)	[WM]	<i>Mkoro</i>	<i>Porisa</i>	<i>rya</i>	[MY]	<i>Imbo!</i>
		mko-ro	Porisa	rya		imbo
		2PL-LOC	Porisa	so		indeed
	[speaker WM] 'You were at Porisa so ...' [speaker MY] 'Indeed (you are right).' [YWbx, by]					

In the example above, speaker MY uses *imbo* to confirm the truth of WM's words. In the example below, on the other hand, the speaker appeals to a generally known truth, namely the fact that to be bitten by a bee causes pain and fear. This is what accounts for the dog's fear and his running away, while the bees pursue him:

(271)	<i>Sifrar</i>	<i>siyaw</i>	<i>i</i>	<i>kukr</i>	<i>imbo,</i>
	si-frar	si-yaw	i	kukr	imbo
	3PL.AN-run	3PL.AN-pursue	3SG	because	indeed
	<i>sark</i>	<i>ido</i>	<i>kosyur.</i>		
	sark	ido	ko-syur		
	3PL.AN-bite	THEM	1PL.INC-smarting		

Indya rofan anyano imkáke.
 indya rofan an-ya=no i-mkák
 so dog GIV-3SG.SPC=also 3SG-afraid
 'They (the bees) pursued him (the dog) for we all know: when they bite we have pain. So the dog had become afraid.' [FFbt]

The following example, finally, has roughly the same structure as the one above; in both examples, the speaker wants to show the logic of the story's main participant's reaction. Example (272) is part of the Manarmaker story. Manarmaker has been guarding a palm tree producing palm wine a few nights in sequence, because every night his wine was stolen. He does not know yet, however, who is the thief. The use of *imbo* below serves to show the addressees that this was 'logical' (in accordance with generally known truth); he could not have known, because the thief came from above and not from below:

(272) *Voi snonkaku eyinm ine ma*
 voi snonkaku ey-inm i-ne ma
 but human.being REL-drink 3SG.SPC-this TOP

imbo snonkaku ero sop va voi,
 imbo snonkaku e-ro sop va voi
 indeed human.being REL-LOC bottom not but

édo ro bo mufes ri eyinmya
 e-^hdo ro bo mu-fes ri ey-inm=ya
 REL-go.down LOC upside PATH-down GEN.SG REL-drink=3SG.SPC

indya ifawi va.
 indya i-fawi va
 so 3SG-know not

'But the person who had drunk (the palm wine) indeed was not a person from below, but it was someone coming from above who had drunk (the palm wine) so he did not know.' [MSIv]

Da 'perhaps' is used to modify an entire proposition or part of it. As modifier of an entire proposition, it precedes the predicate (but not necessarily directly), as in the following example:

(273) *Mamfnai imbo ryo sup munda*
 mamfnai imbo r<y>o sup mu-n-ra
 fish(es) indeed <3SG>LOC forest PATH-to.o.there-sea

rya da isnarm ve papus kero
 rya da i-snarm ve papus ker=o
 so perhaps 3SG-smell as leaves part=nonSP.SG

<i>rya</i>	<i>siyar</i>	<i>rao</i>	<i>ee</i>
rya	si-yar	rao	ee
so	3PL.AN-(go).round	until	eh

'The fishes, indeed, he (the cassowary) had come from the forest seawards, so perhaps he smelled after something like leaves or so, so they played around (him).'

 [MSbt]

The narrator of the Manarmaker myth regularly seems to use *da* in a kind of interplay with his listeners. In (273) above, he first uses *imbo* to let the addressees agree with the content of what follows. In what follows, however, he presents his conclusion as just a probability: 'perhaps the cassowary smelled after the leaves of the forest, and the fishes liked that'. In (274) below, *da* modifies only part of a proposition:

(274)	<i>Vyarkus</i>	<i>us</i>	<i>i</i>	<i>ro</i>
	v<y>ark	us	i	ro
	<3SG>lie	together.with	3SG	LOC

<i>ras</i>	<i>ri</i>	<i>da</i>	<i>vésó</i>	<i>ro</i>	<i>diyí.</i>
ras	ri	da	vésó	ro	di-yi
day	NUM.LNK	perhaps	several	LOC	place-that

'He stayed with him for perhaps a few days at that place.' [MSil]

Be! 'hey' is used to call someone, as in the following example. These words were uttered while one of my consultants (YO) was showing me around in one of the gardens. Suddenly a friend of his (TA) shouted from some thirty meters away:

(275)	(TA)	<i>Be</i>	<i>awako!</i>	[YO]	<i>be!</i>	[TA]	<i>Faiman!</i>
		be	awak-o		be		faiman
		hey	friend-VOC		hey		faiman

'(TA) Hey friend! (YO) Hey (TA) 'faiman!'⁶⁰ [ATbp]

The following is taken from a story in which a snake has devoured or chased all inhabitants of a village. One child stays behind, grows up and eventually builds seven platforms in a tree, full of well-smelling fishes. The child waits for the snake to come, high up in the tree. When the snake smells the fish and sees the child, it calls upwards:

(276)	<i>Be!</i>	<i>Mamribabo</i>	<i>ke,</i>	<i>mamri</i>	<i>vekwar?</i>
	bee	man-vri-babo	ke	man-vri	ve-kwar
	hey	male-heroic-new	DOUBT	male-heroic	REL-old

'Hey! are you a new hero or an old hero?' [KOfh]

The interjection *ba* seems to express amazement or indignation. Sentence (277) below is part of a story, in which the taxi driver utters his indignation because he has been deceived. One of the passengers said he had filled his bag with jackfruits, while in fact it was a pig that he had put in it. The taxi driver then exclaims:

⁶⁰ The meaning of *faiman* is not entirely clear, but according to my consultants designates a heroic person. It is typically used in addressing other male persons.

- (277) *"Ba, insandya wóve nangka ri*
 ba insandya w-óve nangka ri
 hey just 2SG-say jackfruit GEN.SG
- waser ro karunyani!*
 wa-ser ro karun=ya=n=i
 2SG-put.(in) LOC bag-3SG.SPC=SEP=3SG.SPC
 'Wah, you just said that it was jackfruit that you had put in the bag!' [MTan]

The sentence below is part of a conversation. The speaker utters her amazement about someone who ate a *geyawas*-fruit's skin instead of its content:

- (278) *Ba, karwar mov sai na kán kifya*
 ba karwar mov sai na k^h-an kíf=ya
 ba dead place which then 1PL.INC-eat skin=3SG.SPC
- fa na dan pyum rai?*
 fa na d-an pyum ra=i
 CONS then 3SG-eat good along=3SG.SPC
 'Wah, how (lit. along which place) for death's sake can we then eat the skin so that it tastes good?' [YWdz]

Some other interjections are the following. *Sye* is used in songs in combination with a word for Jesus or God: *sye Manseren* 'o Lord'. *Iyo* is used as an exclamation on its own, to express agreement with the speaker. It starts high, and has a suddenly dropping intonation. *Ker=o* 'piece=nonSP.SG' has a function which is comparable to that of *da*.

3.13 Clitics =*u* and =*o*

Two frequently attested clitics are =*u* and =*o*. Both of these clitics are found after words of different lexical categories. They are often lengthened, and may coincide with an intonational pause. Both clitics can be consider as a kind of fillers, offering both the speaker and the addressee some time to 'make up their mind', at the same time indicating that the speaker has not finished his utterance yet. The fillers, then, never go together with utterance-final intonation. Two examples are given here. The first is part of a very slow speech about a traditional wedding party in Wardo and illustrates the use of =*u*. Note that + indicates non-final intonation and pause, while : indicates lengthening.

- (279) *Yave yafár asusrú: + marandan +*
 ya-ve ya-fár as~usr=u m~aran~rán
 1SG-want 1SG-tell RED~follow=U journey
- ero ras ine ro +*
 e-ro ras i-ne ro
 REL-LOC day 3SG.SPC-this LOC
 I want to tell and follow (step by step)... the journey ... of this day in ...[AAab]

An example of the use of =*o* is given with (280) below.

(280)	<i>Ikofn</i>	<i>kasumasa</i>	veyo	<i>mankroder</i>	<i>sumin</i>	<i>ansi.</i>
	i-kofn	kasumasa	ve=yo	mankroder	su-min	an-s-i
	3SG-speak	thanks	to=O	bird-frog	3PL-member	GIV-3PL.ANIM-SPC
	'He said thanks to the other frogs.' [FYdy]					

The difference between =*o* and =*u* is unclear and awaits further investigation.

4 VERBS

This chapter discusses the inflectional, morphological and syntactic properties of verbs. After an overview of inflectional patterns in 4.1, section 4.2 classifies verbs as intransitive, ambitransitive or transitive on syntactic grounds. While section 4.2 considers the syntactic behavior of verbs, section 4.3 focuses on their morphological make-up. It discusses prefixes and postverbs used in the formation of verbs and verbal complexes, relating these verbs (or verbal complexes) to the syntactic classification given in 4.2. Reduplication of verbs will be discussed in Chapter 7.

4.1 Inflection

Verbs are inflected for number and gender of the subject according to one of the patterns given in Table 1. As was shown in Chapter 3, the pronominal affixes are very similar to the free pronouns.

Table 1 Patterns of verbal inflection

	CONSONANTAL PATTERN		MIXED PATTERN			VOCALIC PATTERN
	CC-initial	CV-initial				V-initial
root	<i>srow</i>	<i>mar</i>	<i>so</i>	<i>mám</i>	<i>vov</i>	<i>árok</i>
meaning	'meet'	'die'	'throw'	'see'	'sell'	'straight'
1sg	<i>ya-srow</i>	<i>ya-mar</i>	<i>ya-so</i>	<i>ya-mám¹</i>	<i>ya-vov</i>	<i>y-árok</i>
2sg	<i>wa-srow</i>	<i>wa-mar</i>	<i>s<w>o</i>	<i>mám</i>	<i>bov</i>	<i>w-árok</i>
3sg	<i>i-srow</i>	<i>i-mar</i>	<i>s<y>o</i>	<i>m<y>ám</i>	<i>v<y>ov</i>	<i>d-árok</i>
1du.exc	<i>nu-srow</i>	<i>nu-mar</i>	<i>nu-so</i>	<i>nu-mám</i>	<i>nu-vov</i>	<i>nuy-árok</i>
1du.inc	<i>ku-srow</i>	<i>ku-mar</i>	<i>ku-so</i>	<i>ku-mám</i>	<i>ku-vov</i>	<i>kuy-árok</i>
2du	<i>mu-srow</i>	<i>mu-mar</i>	<i>mu-so</i>	<i>mu-mám</i>	<i>mu-vov</i>	<i>muy-árok</i>
3du	<i>su-srow</i>	<i>su-mar</i>	<i>su-so</i>	<i>su-mám</i>	<i>su-vov</i>	<i>suy-árok</i>
3pc	<i>sko-srow</i>	<i>sko-mar</i>	<i>sko-so</i>	<i>sko-mám</i>	<i>sko-vov</i>	<i>sk^h-árok²</i>
1pl.exc	<i>nko-srow</i>	<i>nko-mar</i>	<i>nko-so</i>	<i>nko-mám</i>	<i>nko-vov</i>	<i>nk^h-árok</i>
1pl.inc	<i>ko-srow</i>	<i>ko-mar</i>	<i>ko-so</i>	<i>ko-mám</i>	<i>ko-vov</i>	<i>k^h-árok</i>
2pl	<i>mko-srow</i>	<i>mko-mar</i>	<i>mko-so</i>	<i>mko-mám</i>	<i>mko-vov</i>	<i>mk^h-árok</i>
3pl.an	<i>si-srow</i>	<i>si-mar</i>	<i>s-so</i>	<i>s-mám</i>	<i>s-vov</i>	<i>s-árok</i>
3pl.inan	<i>na-srow</i>	<i>na-mar</i>	<i>n-so</i>	<i>n-mám</i>	<i>n-bov</i>	<i>n-árok</i>

Basically, there are three patterns of verbal inflection: a consonantal pattern, a mixed pattern and a vocalic pattern. Consonantal and vocalic inflection is regulated fully by prefixes, whereas the mixed pattern also makes use of two infixes: the infix <w> for 2SG and the infix <y> for 3SG. The prefixes of the consonantal pattern and the mixed pattern are the same, except in 3PL.AN/INAN, where the consonantal pattern has *si-/na-*, while the mixed pattern has *s-/n-*, respectively. The prefixes used in the vocalic pattern differ from those used in the consonantal pattern in that the vowel of the prefix is lost, except for the dual forms, in which /u/ is retained but followed by /y/. The prefix for 3SG in the vocal inflection pattern is *d-* instead of *i-*.

Which pattern is chosen for which verb is partly determined by the phonological shape of the stem. All vowel-initial stems are inflected according to the vocalic pattern of inflection, while

¹ As the forms given in this column end in a long vowel plus a consonant, they get an *e* epenthesized in final position of an intonational phrase, cf. section 2.2.2.

² As has been shown in 2.2.2, the prefixes of 3PC through 2PL that are used in the vocalic pattern of inflection end in a floating mora.

all cluster-initial stems are inflected according to the consonantal pattern. For CV-initial verbs, however, the pattern is not predictable on the basis of the phonological shape of the stem, but determined lexically; some follow the consonantal pattern, others the mixed pattern. That the inflectional pattern is lexically determined is proven by the existence of minimal pairs, like *so* 'throw' and *so* 'follow' of which the former is inflected according to the mixed pattern, the latter according to the consonantal pattern. This is illustrated in the following two sentences:

(1) a *Syo*.
 s<y>o
 <3SG>throw
 'He throws.' [KOfu]

(1) b *Iso*.
 i-so
 3SG-follow
 'He follows.' [MMba]

For verbal stems inflected according to the mixed pattern, some additional phonological constraints are determinative of their realization. First, in all stems that begin with a bilabial, like *mám* in the table above, we find only the consonant of the stem and no <w>, to avoid the sequence of two bilabial consonants (cf. section 2.6.1 above.) Second, in stems starting with the bilabial voiced fricative /v/, like *vov* 'sell', the 2nd person infix is expressed by the use of *b* as the initial consonant, as in *bov* '2SG.sell'. Finally, the same voiced fricative /v/ is realized as [b] when preceded by the prefix *n-*, which is in accordance with the general phonological rules of the language (cf. 2.6.2 above).

Now that the basic patterns have been set out, it is time to have a closer look at some of the vowel-initial stems. First some things will be said about monosyllabic vowel-initial stems. After this, the rest of the section will pay attention to the polysyllabic stems that start with a long vowel /á/.

4.1.1.1 Monosyllabic vowel-initial stems

As indicated in Table 1 above, vowel-initial verbal stems have a different inflectional pattern from consonant-initial stems. Four of the prefixes used in the so-called vocalic inflectional pattern lengthen the vowel to which they are attached. For verbs of the form VC, the lengthening of the vowel triggers epenthesis of [e] at the end of an intonational phrase. This pattern was illustrated in Table 15 of Chapter 2 and is repeated here as Table 2:

Table 2 The verb *an* 'eat' with pronominal prefixes; realization in *I*-final position and other positions

		not <i>I</i> -final position	<i>I</i> -final position
1sg	<i>y-an</i>	[yan]	[yan]
2sg	<i>w-an</i>	[wan]	[wan]
3sg	<i>d-an</i>	[dan]	[dan]
1du exc	<i>nuy-an</i>	[nuyan]	[nuyan]
1du inc	<i>kuy-an</i>	[kuyan]	[kuyan]
2du	<i>muy-an</i>	[muyan]	[muyan]
3du	<i>suy-an</i>	[suyan]	[suyan]
3pc	<i>sk^μ-an</i>	[skán]	['skáne]
1plexc	<i>nk^μ-an</i>	[nkán]	['nkáne]
1plinc	<i>k^μ-an</i>	[kán]	['káne]
2pl	<i>mk^μ-an</i>	[mkán]	['mkáne]
3pl.an	<i>s-an</i>	[san]	[san]
3pl.inan	<i>n-an</i>	[nan]	[nan]

For verbs of the form VCC, like *ors* 'stand' prefixation with one of the four prefixes leads to a stress shift from the ultimate (e.g. *d-ors* '3SG-stand', realized in prepausal position as [d-o'res]) to the penultimate (k^μ-ores, realized in prepausal position as ['kores]). This phenomenon has also been touched upon in 2.2.2 (note 14) and 2.5.5.

4.1.1.2 Polysyllabic stems with initial long á

Another group with a special inflectional pattern is formed by verbs with an initial long vowel *á*. Most of these stems alternate with a stem in which the initial *á* is lost. The verbs without initial *á* differ from normal consonant-initial verbs however, in that they cause the pronominal prefix to be stressed. In Chapter 2, I have given an account of this phenomenon, by stating that the variants without long initial *á* begin with a floating mora that docks on the vowel of the preceding prefix. The inflectional pattern is illustrated in the following table, giving the inflection of the verb *ádo* ~ ^μ*do* 'descend'.

Table 3 Stressed-a-initial verbs alternating with μ -initial verbs

	<i>ádo</i> 'descend'	^μ <i>do</i> 'descend'
1sg	<i>y-ádo</i> ['yádo]	<i>ya-^μdo</i> ['yádo]
2sg	<i>w-ádo</i> ['wádo]	<i>wa-^μdo</i> ['wádo]
3sg	<i>d-ádo</i> ['dádo]	<i>i-^μdo</i> ['ído]
1du. exc	<i>nuy-ádo</i> [nu'yádo]	<i>nu-^μdo</i> ['núdo]
1du.in	<i>kuy-ádo</i> [ku'yádo]	<i>ku-^μdo</i> ['kúdo]
2du	<i>muy-ádo</i> [mu'yádo]	<i>mu-^μdo</i> ['múdo]
3du	<i>suy-ádo</i> [su'yádo]	<i>su-^μdo</i> ['súdo]
3pc	<i>sk^μ-ádo</i> ['skádo]	<i>sko-^μdo</i> ['skódo]
1pl.exc	<i>(i)nk^μ-ádo</i> [(i)n'gádo]	<i>(i)nko-^μdo</i> [(i)n'gódo]
1pl.inc	<i>k^μ-ádo</i> ['kádo]	<i>ko-^μdo</i> ['kódo]
2pl	<i>'mk^μ-ádo</i> ['mgádo]	<i>mko-^μdo</i> ['mgódo]
3pl.an	<i>s-ádo</i> ['sádo]	<i>si-^μdo</i> ['sido]
3pl.inan	<i>n-ádo</i> ['nádo]	<i>na-^μdo</i> ['nádo]

Syntactically or semantically, the verbs do not form a homogeneous group.

4.2 Verb classes

This section classifies the verbs on purely syntactic grounds, on the basis of their valency. It will not discuss the relation between the syntactic classification of a verb and its

morphological make-up, as this will be the topic of section 4.3. In the Biak language, the following three groups of verbs can be distinguished on syntactic grounds:

- 1) Intransitive verbs. These are verbs that cannot co-occur with a direct object.
- 2) S = O ambitransitive verbs. These are verbs that occur either in an intransitive or in a transitive clause and in which the S argument of the intransitive is identified with the O argument of the transitive clause. A transitive clause is defined as a clause containing an overt direct object.
- 3) Transitive verbs. These are verbs that can co-occur with a direct object, except for the S=O ambitransitive verbs, which will be referred to as (S=O) ambitransitives instead of transitives.

The following subsections discuss the different syntactic types one by one. In addition to the three just mentioned groups, sections 4.2.4 through 4.2.6 discuss some verbs with more specific distributional properties.

4.2.1 Intransitive verbs

As stated above, intransitive verbs are those verbs that cannot co-occur with a direct object. Two examples of intransitive verbs are given here:

- (2) *Indya knik na insape kumrán mura.*
 indya knik na insape ku-mrán mu-ra
 so moment then then 1DU.INC-walk PATH-to.o.there
 'So in a moment then the two of us will go away.' [ATba]

- (3) *Inai nanine ipyum.*
 ina an-i-ne i-pyum
 young.woman GIV-3SG.SPC-this 3SG-good
 'This young woman was good (looking). [MMcv]

As can be seen in (3) above, verbs are also used for the expression of properties, which in many other languages are expressed by a separate class of adjectives. More on the absence of adjectives and the expression of comparative and superlative can be read in 3.5.

Examples of intransitive verbs are the following:

Table 4 Intransitive verbs

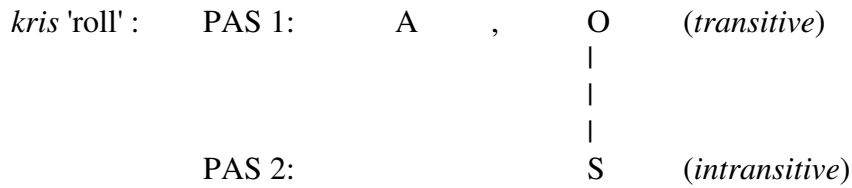
<i>verb</i>	<i>meaning</i>	<i>verb</i>	<i>meaning</i>
<i>frar</i>	run	<i>pyum</i>	good
<i>mrán</i>	walk	<i>syúf</i>	cold
<i>áron</i>	swim	<i>sarmar</i>	bitter
<i>sambern</i>	fast	<i>rumk</i>	green
<i>ádo</i>	go down	<i>paism</i>	black
<i>áfuf</i>	straight	<i>sáe</i>	go out

4.2.2 S=O ambitransitives

In the case of S=O ambitransitives, the verb can be the head of a transitive or head of an intransitive predicate. The intransitive S aligns with O in the transitive predicate. This is

shown in the following figure, which gives the two related predicate argument structures of the verb *krís* 'roll':

Figure 1 Predicate Argument Structure of *krís* 'roll'



The two variants are illustrated in the following two sentences, *krís* 'roll' being used transitively in (4) and intransitively in (5). Note that *bola* 'ball' is O and expressed as an object in (4), while it is the intransitive S and expressed as subject in (5).

- (4) *Ikrís* **bolaya** *ro* *kakar* *iwa* *ryáe*.
 i-krís bola=ya ro kakar i-wa r-yáe.
 3SG-roll ball=3SG.SPC LOC stairs 3SG.SPC-over.there to.o.there-up
 'He rolled the ball on the stairs upwards.' [S_T_077]

- (5) **Bolaya** *ikríse*.
 bola=ya i-krís
 ball=3SG.SPC 3SG-roll
 'The ball rolled.' [e]

S=O ambitransitives form a semantically rather homogeneous group and form what is often called inchoative / causative verb pairs.³ The verbs refer to events that can be viewed of as either caused by an external agent or force, or as coming about or having come about spontaneously. The great majority of S=O ambitransitive verbs express motion or position. Most of the attested verbs belonging to this group are presented in Table 5 below.

³ Cf. Haspelmath 1993 for a discussion of inchoative / causative alternations in typological perspective.

Table 5 Transitive and Undergoer intransitive verbs: caused or spontaneous movement or position

<i>Verb</i>	<i>Undergoer intransitive</i>	<i>Transitive</i>
<i>pambar</i>	turn around	turn round
<i>krís</i>	roll	roll
<i>kavr</i>	return	return
<i>knúm</i>	rotate	rotate
<i>park</i>	turn, twist (around)	turn, twist (around)
<i>sevn</i>	open, be open	open
<i>sisn</i>	close, be closed	close
<i>ákás</i>	(be) curl(ed) up	curl up
<i>níw</i>	(be) roll(ed)up	roll up
<i>fakayov~ kafayov</i>	be with opening on the ground	put with opening on the ground
<i>kaker</i>	lean	lean
<i>árok</i>	lie transverse	lay transverse
<i>dorw</i>	bend	bend
<i>kakir</i>	hang with one end sticking out	hang up with one end sticking out
<i>war</i>	be planted	plant
<i>somn</i>	hang (general), possibly both ends sticking out	hang (general), possibly both ends sticking out
<i>syos</i>	piled up	pile up
<i>krof</i>	stick	stick
<i>káf</i>	hang	hang up

For words like *sevn* 'open' and *sisn* 'close' the intransitive can refer both to the motion-event and to the resultant state (position). The following sentence, then, has two possible interpretations, indicated in the free translation.

- (6) **Kedwaya** *syeven*.
kedwa=ya s<y>evn
door-3SG.SPC <3SG>open
1) 'The door is open.'
2) 'The door is opening.'

The following two sentences again illustrate the alternation between an intransitively used verb in (7) and a transitively used verb in (8). It is clear that the role of the intransitive subject *kavraya* 'rope-3SG.SPC' in (7) is similar to the role of the object *i* '3SG' (coreferent with *slan* 'tube') in (8):

- (7) *Kavraiya* **dákás** *vo*
kavrai=ya d-ákás vo
rope=3SG.SPC 3SG-curl.up SIM
- vyark* *ro* **keranjanya** *rwari*.
v<y>ark ro keranjan=ya rwa-ri
<3SG>lie LOC basket=3SG.SPC edge-POS.SG
'The rope is curled up and lies on the edge of a basket.' [OP19]

- (8) **Slanya** **sákás** **i.**
 slan=ya s-ákás i
 tube=3SG.SPC 3PL.AN-curl.up 3SG
 'The tube they have curled it up.' [GY23]

Another S=O ambitransitive verb is *nir* 'give.name' / 'have.name'. It is used both intransitively, as in *n<y>ir ve Wardo* '<3SG>have.name as Wardo' -> 'it is called Wardo' [TWhh], and transitively, as in *n<y>ir i ve Sekfamner* "<3SG>give.name 3SG as Sekfamner" -> 'he called him Sekfamner' [KOhm].⁴

4.2.3 Transitive verbs

Transitive verbs are those verbs that can co-occur with a direct object. Examples of transitive verbs are *prer* 'hit', *rup* 'cover', *kovs* 'buy' and *fan* 'feed.' An example of a transitive clause is given with the following sentence, where the transitive verb *kovs* 'buy' is a transitive verb followed by a direct object *fas* 'rice'.

- (9) *Vo* *insape* *nkosaséwar* *ve* **kota**
 vo insape nko-sa~séwar ve kota
 SIM then 1PL.EX-RED~seek to town
- fa* ***nkokovsu*** *fas.*
 fa nko-kovs=u fas
 CONS 1PL.EX-buy=U rice
 'And then we seek (food and go) to the town to buy rice.' [SScj]

Examples of transitive verbs are given in the following table:

Table 6 Transitive verbs

<i>verb</i>	<i>meaning</i>	<i>verb</i>	<i>meaning</i>
<i>mun</i>	kill	<i>rowr</i>	hear, listen
<i>so</i>	follow	<i>mám</i>	see, look
<i>fan</i>	feed	<i>marisn</i>	enjoy
<i>mkák</i>	fear	<i>msór</i>	angry
<i>ún</i>	take	<i>mewr</i>	refuse

Although transitive verbs can take a direct object by definition, the question whether the verb indeed takes an overt object depends both on the context and the semantic properties of the verb. The influence of both the context and the semantic properties are discussed in the following section.

4.2.3.1 Transitive verbs without overt object.

Verbs that *may* take an object, in other words, verbs that are formally transitive, all *can* occur without an overt object in certain contexts. Consider example (10) below. It is part of an expository discourse in which the speaker explains how he and his friend fish for sea cucumbers. From the context it is clear that the implied object of *úf* 'take' is the sea cucumbers he has been talking about:

⁴ The formative *ve* 'as' is probably related to the verbalizer *ve* and discussed at the end of 4.6.3. Its use with the verb *nir* 'give/have name' is very much comparable to its use in combination with *ór* 'call', although the latter verb is used only in transitive sentences, like *d-ór i ve napirman* '3SG-call 3SG as cross-cousin' -> 'he called him cross-cousin' [KSaf].

- (10) *Suminya* *dúf* *epon.*
 su-min=ya d-úf e-pon
 3DU-member=3SG.SPC 3SG-pick.up REL-first
 'One of the two picks up (the sea cucumbers) first.' [ZKar]

The elision of the object in (10) is an example of context-dependent object elision.⁵ In this section, I will focus on another type of object elision, which is basically context-independent. Consider example (11) below, part of a speech held at a wedding.

- (11) *Snar* *rov* *ine* *komarisen.*
 snar rov i-ne ko-marisn
 because night 3SG.SPC-this 1PL.INC-happy
 'Because this night we are happy.' [DAfa]

In the example above, the verb *marisn* does not take an object. Given the definition above, however, the verb *marisn* 'happy' should be classified as a transitive verb, as it can combine with an overt object, exemplified in (12) below:

- (12) *Manseren,* *yamarisn* *wós* *banine.*
 Mansern ya-marisn wós b=an-i-ne
 Lord 1SG-happy (with) word 2SG.POS=GIV-3SG.SPC-this
 'Lord, I enjoy this word of yours.' [YReu]

Other than the object elision in (10), the 'elision' of the object in (11) above is an example of context-independent (indefinite) object elision.⁶ The fact that the object need not be expressed does not have anything to do with the preceding context, but should be seen as a property of the verb itself. Although the distinction between context-dependent and context-independent object elision is not easy to draw, I think that the language offers clear examples of both. The rest of this section focuses on context-independent object elision. It gives an overview of the verbs that allow for context-independent object elision and characterizes these verbs semantically. It will be shown that in quite a number of cases the object elision can be accounted for by the reduced transitivity of the clause.

The following table gives most of verbs in the corpus that allow for context-independent object elision:

⁵ I use the term 'elision' as cover term for all instances where we do not find an object where there could be used one given the valency of the verb. The use of the term 'elision' does not imply any claims as to whether the object (or O) is present at other levels than the phonological level, be it at a semantic or a syntactic level.

⁶ For the distinction between context-dependent and context-independent object elision, I have made use of Åshild Næss' dissertation (Næss 2004: 45f). I prefer the term 'object elision' over 'object deletion', as I do not want to make any claims as to whether a verb like *marisn* in (11) above really has an object at a lexical level. Åshild Næss speaks of *indefinite* object deletion, to express that omitted objects must always be interpreted as indefinite. In the context of this thesis, the specification 'indefinite' would be justified, but it is not necessary for an understanding of the text.

Table 7 Transitive verbs allowing for context-independent object elision

	<i>intransitive</i>	<i>transitive</i>		<i>intransitive</i>	<i>transitive</i>
<i>msór</i>	angry	angry with	<i>bur</i>	leave	leave
<i>marisn</i>	happy	happy with	<i>áyun</i>	row	row
<i>mór</i>	tired	tired of	<i>disn</i>	sing	sing
<i>mríf</i>	laugh	laugh at	<i>inn⁷</i>	drink	drink
<i>mkák</i>	afraid	afraid of	<i>ov</i>	bark	bark against
<i>mrús</i>	sleepy	sleepy because of	<i>áwós</i>	talk	gossip about
<i>mai</i>	ashamed	ashamed of	<i>áwúr</i>	howl	howl against
<i>mander</i>	moved	moved because of			
<i>mser</i>	drunk	drunk because of			
<i>mám</i>	see, look	see			
<i>rowr</i>	hear, listen	listen to			

Observation of the verbs in Table 7 above allows for some interesting generalizations. First note that all of the verbs in the leftmost column of the table can be seen as sentient verbs, with an Experiencer as A-argument. The following sentences illustrate object elision for the verbs *mríf* 'laugh (at)' and *mkák* 'be afraid (of)'. The verbs are used without overt objects in (13), while they do take an object in (14) and (15). Sentence (13) is part of a conversation about the earthquake that struck Biak in 1996. The participants in the conversation have just been talking about the terrible and the funny things that happened that day. One of the participants then remarks:

- (13) *Imbo, kove komríf ke,*
 imbo ko-ve ko-mríf ke
 indeed 1PL.INC- want 1PL.INC-laugh.(at) DOUBT
- kove komkák ke?*
 ko-ve ko-mkák ke
 1PL.INC- want 1PL.INC-afraid DOUBT
 'Indeed, should we laugh or should we be afraid?' [GBer]

In the sentence above, then, the speaker does not express an 'object of fear', or a 'thing to laugh about.' He simply wants to express that thinking about the earthquake can make one feel afraid or feel like laughing. In the following sentence, however, there is an 'entity to fear' or 'entity to laugh about', which both are expressed overtly:

- (14) *Imkák kapai nanine.*
 i-mkák kapai an-i-ne
 3SG- afraid mouse GIV-3SG.SPC-this
 'He was afraid of this mouse.' [FYbq]

⁷ The verb *inn* 'drink' differs from the verb *an* 'eat', which does not allow for object deletion. For intransitive eating, the language uses the reduplicated form *an~an* or *nan*.

- (15) *Kawasa vero mnu anya⁸ simrif i.*
 kawasa ve-ro mnu an-ya si-mrif i
 people REL-LOC village GIV-3PL.AN-SPC 3PL.AN-laugh 3SG
 'People in the village laughed at him.' [OHaq]

What then causes exactly these experiencer verbs to allow for elision of the object? In giving an account of this question, I follow Åshild Næss, who has given an interesting account of (indefinite) object deletion in terms of reduced transitivity. In her thesis, transitivity is a semantic and gradual notion (Næss 2003). In a prototypical transitive clause, A and O are maximally distinct with respect to the three parameters VOL (volitionality), INST (instigation) and AFF (affectedness, id: 97). A prototypical Agent is +VOL, +INST and –AFF, while a prototypical Patient is –VOL, –INST and +AFF. Any change in the values for either A or O coincides with a reduction in transitivity. A reduction in transitivity increases the possibility of indefinite object deletion (id: 61).

Now again consider the experiencer verbs. It is clear that they deviate from the transitive prototype, as A and O are less distinct than in the prototypical transitive clause. Experiencers are +volitional,⁹ –instigating and +affected (id 131), while the object is not necessarily affected. It is not surprising, then, that it is precisely this group of verbs that allow for elision of the object.¹⁰ Considering the other verbs, the verb *inm* 'drink' has an affected Agent, while *bur* 'leave' has an unaffected Patient. Two examples of the use of *bur* are given here:

- (16) *Vyors ibur.*
 v<y>ors i-bur
 <3SG>row 3SG-leave
 'He rowed and left.' [MShr]

- (17) *Iburu mnu ine.*
 i-bur=u mnu i-ne
 3SG-leave=U village 3SG.SPC-this
 'He left this village.' [MSav]

The verb *disn* 'sing' is a verb with an effected object, rather than an affected object. Here, again, reduce in transitivity coincides with the possibility of leaving out the object. The verb is used without an object in (18), while (19) shows the use of an overt object:

- (18) *Insandya kodisn voi na kodisn wer.*
 insandya ko-disn voi na ko-disn wer
 just 1PL.INC-sing but then 1PL.INC-sing again
 'We have just sung, but we will sing again.' [DAfa]

⁸ This story is one of the few that were written down by an informant before they were read aloud. This explains the use of *an* instead of *nan* in postvocalic position.

⁹ The feature +volitional ascribed to Experiencers is explained by Næss as follows: "an argument is taken to be volitional if it is involved in the event in question by virtue of being volitional or sentient. This includes, for example, Experiencer arguments of verbs of cognition and or perception" (Næss 2003:109, also see 131f).

¹⁰ On page 168 of her thesis, Næss gives an argument hierarchy. Although the hierarchy is not meant primarily to measure the distance between A and O, it is clear that the distance between Experiencer (A) and Neutral (O) is very small, which gives a high chance of indefinite object deletion.

- (19) *Mkodisn i wer va insape yákdisen.*
 mko-disn i wer va insape y-ák-disn
 2PL-sing 3SG again because then 1SG-also-sing
 'You sing it (the song) again, because then I will also sing (it).' [YWgj]

It is not entirely clear how Næss' concept of reduced transitivity can account for object elision in the case of the verbs of speech: *ov* 'bark', *áwós* 'talk' and *áwúr* 'howl'. Interestingly, the object refers to an entity that is negatively *affected*, as is also the case for *msór* 'angry' and *mríf* 'laugh'.

4.2.4 Verbs of meteorological condition

Virtually all verbs of natural condition appear as verbs inflected for a third person singular subject. Most of the verbs can but need not co-occur with an overt subject, while only some can co-occur with an object. Those verbs that combine with a subject do so with one or more nouns from a limited set. Some examples of sentences containing verbs of meteorological condition are given below. In (20) we see that the verb *myun* 'rain' may or may not combine with the explicit subject *mekm* 'rain'. Example (21) illustrates the optional use of the subject *sup* 'land, area, environment,' while (22), finally, shows that *myun* can also be used transitively.

- (20) **Dan** *rovya (mekmya) imyun.*
 dan rov=ya mekm=ya i-myun
 and night=3SG.SPC rain=3SG.SPC 3SG-rain
 'And at night it rained.' [MBay]
- (21) (*Supya*) *imrúke / ipnunek / ivrin*
 sup=ya i-mrúk i-pnunk i-vrin
 land=3SG.SPC 3SG-cloudy 3SG-cold 3SG-quiet
 '(The weather) is cloudy / is cold / is quiet.' [el]
- (22) *Imyun aya / idarés aya.*
 i-myun aya i-darés aya
 3SG-rain 1SG 3SG-hot 1SG
 'I was rained upon' / 'I was hit by the heat (from the sun).' [el]

As stated above, most such verbs are used only as a verb inflected for third singular. Interestingly, in the corpus an example was found of this third person singular functioning as a noun, as is shown in (24) below. In this case, it seems that the third person singular is reanalyzed as one root and then used as a noun, as such fit to be cliticized with the determiner =*ya* and to function as subject of another predicate *iba* '3SG-big'. Comparison between (23) and (24) shows that it is indeed the inflected form of *syor* 'dry' / 'low.tide' that is used as a noun in (24).

- (23) *Masn anya isyor kwar.*
 masn an-ya i-syor kwar
 salt.water GIV-3SG.SPC 3SG-dry already
 'The water was dry already.' [KOaq]

- (24) *Isyorya* *iba.*
 i-syor=ya i-ba
 3SG-low.tide=3SG.SPC 3SG-big
 'The low tide was big.' [CPab]

4.2.5 Agent-Theme-Location: changing subcategorizations

This section discusses verbs that are similar in the following respects.

- They express (aspects of) an event in which an Agent locates a Theme with respect to a Location.
- Either the Theme or the Location can be expressed as object of the verb, without any change in the morphological form of the verb.

First consider the following two examples. In (25), the pronominal object corresponds to the Theme of the event; it refers to the thing that is planted. In (26), on the other hand, the pronominal object corresponds to the Location; it refers to the garden that is planted with tubers.

- (25) *Kyer* *i* *ro* *swan* *andíre.*
 k<y>er i ro swan andír
 <3SG>plant 3SG LOC sea border
 'He planted it (the tree) at the seaside.' [WRab]

- (26) *Yáf* *anya* *kyer* *i* *kukru* *ifen*
 yáf an-ya k<y>er i kukr=u ifn
 garden GIV-3SG.SPC <3SG>plant 3SG with=U <k.o.tuber>
 'This garden he planted with tubers.' [MMad]

When the Location is expressed as the direct object of the verb, this indicates that the location is totally covered by the Theme. This is also true for the other verbs.¹¹ Several minimal pairs are given below:

- (27) *Yakáf* *irai* *sine* *ro* *apepn* *ine.*
 ya-káf irai s-i-ne ro apepn i-ne
 1SG-hang necklace 3PL.AN-SPC-this LOC wall 3SG.SPC-this
 'I hang these necklaces on this wall.' [el]

- (28) *Yakáf* *apepn* *ine* *kukr* *irai.*
 ya-káf apepn i-ne kukr irai
 1SG-hang wall 3SG.SPC-this with necklace
 'I make this wall full of necklaces.' [el]

¹¹ In this respect, these verbs are similar to English verbs belonging to the spray/load class, as discussed in Dowty (1991, 587f), Goldberg (1995:175) and others. Verbs belonging to the spray/load class allow for different subcategorizations, as both non-subject arguments (i.e. both the located object and the location) 'are entailed to undergo significant changes of state' (Dowty 1991: 594). Therefore, both non-subject arguments can be expressed as direct object, while the other is expressed as a prepositional complement.

- | | | | | | | |
|--------|--------------|-----------------|--------------------------|--|-----------|----------------|
| (29) | <i>Yafas</i> | <i>snonsnon</i> | <i>sena</i> | | <i>ro</i> | <i>syaprám</i> |
| | ya-fas | snonsnon | se=na | | ro | syap-rám |
| | 1SG-write | name | 3.PL.AN.POS=3PL.INAN.SPC | | LOC | letter-leave |

ine.

i-ne

3SG.SPC-this

'I write their names on this paper.' [el]

- | | | | | | |
|--------|--------------|----------------|--------------|-------------|-----------------|
| (30) | <i>Yafas</i> | <i>syaprám</i> | <i>ine</i> | <i>kukr</i> | <i>snonsnon</i> |
| | ya-fas | syap-rám | i-ne | kukr | snonsnon |
| | 1SG-write | letter-leaf | 3SG.SPC-this | with | name |

sena.

se=na

3PL.AN.POS=3PL.INAN.SPC

'I make this paper full with their names.' [el]

Although these examples are based on elicitation, they are nevertheless illustrative of the flexibility of the language with respect to the mapping between possible semantic roles on the one hand and the grammatical roles of (S,) A and O on the other hand. One and the same verb can be used with different valency without the use of any valency changing morphology. Note in this respect that *káf* 'hang' is also an S=O ambitransitive, while *ker* also has a reflexive / ambitransitive reading, as in the following sentence:

- | | | | | | |
|--------|-----------|------------------|------------|-------------|----------------------|
| (31) | <i>Ín</i> | <i>anine</i> | <i>ive</i> | <i>kyer</i> | <i>murvav</i> |
| | ín | an-i-ne | i-ve | k<y>er | mu-r-vav |
| | fish | GIV-3SG.SPC-this | 3SG-want | 3SG-plant | PATH-to.o.there-down |

ra *dine.*

ra di-ne

along place=here

'This fish wanted to plant itself down like this.' [YMcn]

4.2.6 Auxiliary verb *ve*

As can be seen in Table 8 below, the auxiliary verb *ve* is inflected like a normal verb and follows the consonantal inflectional pattern.

Table 8 Inflection of auxiliary verb *ve* 'want'

1SG	<i>ya-ve</i>
2SG	<i>wa-ve</i>
3SG	<i>i-ve</i>
1DU.EXC	<i>nu-ve</i>
1DU.INC	<i>ku-ve</i>
2DU	<i>mu-ve</i>
3DU	<i>su-ve</i>
3PC	<i>sko-ve</i>
1PL.EXC	<i>(i)nko-ve</i>
1PL.INC	<i>ko-ve</i>
2PL	<i>mko-ve</i>
3PL.AN	<i>si-ve</i>
3PL.INAN	<i>na-ve</i>

The auxiliary *ve* expresses either that the event expressed by the main verb is about to take place, or that the subject intends it to take place. It is attested either as a fully inflected verb, marked for number and gender of the subject, or it takes a 3SG impersonal subject prefix. As a fully inflected verb, it is always followed directly by a main verb that functions as head of the complement clause, while the auxiliary and the main verb have coreferential subject prefixes. An example is given with the following sentence, where both the auxiliary and the main verb *for* 'catch' combine with a 3PL.AN prefix.

- (32) *Sai* *wark* *i* *fa* ***sive*** ***sfor*** *i*.
 s-ai wark i fa si-ve s-for i
 3PL.AN-open block 3SG CONS 3PL.AN-want 3PL.AN-catch 3SG
 'They blocked the way for him (by opening up as a group and surrounding) in order to catch him.' [MMde]

As stated above, the auxiliary is more commonly used with an impersonal 3SG-subject prefix, irrespective of the person and number of the prefix on the main verb. Compare the following two sentences, which both contain the auxiliary verb *ve* and the main verb *ra*.

- (33) ***Yave*** ***yara*** *ve* ***pasar.***
 ya-ve ya-ra ve pasar
 1SG-want 1SG-go to market
 'I am about to / want to go to the market.' [YMbp]
- (34) *Rov* *ine* ***ive*** ***yara*** *ve* *amber*
 rov i-ne i-ve ya-ra ve amber
 night 3SG.SPC-this 3SG-want 1SG-go to foreigner
- anirawa*
 an-i-ra-wa
 GIV-3SG.SPC-sea-over.there
 'This night I want to go to the foreigner seawards over there.' [MIax]

The impersonal *ive* can both follow and precede the overt subject. Both of the following two sentences, then, are grammatical:¹²

- (35) *Snonnánki nanine ive ibur.*
 snon-nánki an-i-ne i-ve i-bur
 male-heaven GIV-3SG.SPC-this 3SG-want 3SG-leave
 'This man from heaven wanted to leave.' [(RAde)]

- (36) *Ive snonnánki nanine ibur.*
 i-ve snon-nánki an-i-ne i-bur
 3SG-want male-heaven GIV-3SG.SPC-this 3SG-leave
 'This man from heaven wanted to leave.' [el]

Instead of *ive*, we sometimes find the shortened form *ve*, or even the form *imbe*, formed out of *ve~be* plus a prefix *in-* (with nasal assimilation to bilabial *v~b*), which is predominantly found in conjunctions and a number of adverbials. The form *imbe* should be analyzed as a modal adverb and is discussed in section 3.7.3.¹³ An example is given in (37) below.

- (37) *Aya ma, imbe ya-ker i ro yén andíre.*
 aya ma imbe ya-ker i ro yén andír-e
 1SG FOC want 1SG-plant 3SG LOC sand border-E
 'As to me, I want to plant it at the shore.' [KSak]

4.2.7 Verbs of giving

Some other verbs to be mentioned are *ve* 'give' and *vuk* 'give'. The verb *ve* 'give' is a verb expressing 'giving' or 'caused motion of an object', and is also used in causative constructions, dealt with in 10.5. The verb *vuk* is also used in instrumental constructions. Both verbs will be further discussed in 10.5.3

This section, then, has given a syntactic classification of verbs, trying to relate the syntactic behavior of the verbs to their semantics. The following section will discuss their morphological form and relate that to the syntactic-semantic division that has been presented in this section.

4.3 Verbal morphology and verb classes

This section discusses the morphological form of verbs. Section 4.3.1 discusses prefixes, while 4.3.2 discusses verbal complexes formed by the combination of verbs and so-called postverbs. Throughout the section, attempts will be made to relate the morphological form of the verbs (or verbal complexes) to their semantic and syntactic properties. In this way, I hope to relate the morphological classification given here to the syntactic classification given in 4.2 above.

¹² I found no convincing examples of an overt *non-third singular* subject preceding *ive*. I am not sure, then, if the following sentence would be correct: *mansar sine ive sibur* 'old.man 3PL.AN IVE 3PL.AN-leave' -> 'these old men want to leave'. It would certainly be correct with a pause between *sine* and *ive*, but it still should be investigated whether sentences like these are grammatical when used as part of one intonational phrase.

¹³ It is not clear whether this modal *imbe* has grown out of the preposition *ve* 'to' or out of the verb *ve*. Synchronically, however, *imbe* is closely related in syntax and function to the auxiliary *ve* and not to the preposition.

4.3.1 Prefixes

The Biak language has very little derivational morphology. Nevertheless, the language shows clear traces of prefixes that are known to have been productive in earlier stages of the language. This section first discusses the fossilized prefixes *m(a)-*, *k(a)-* and *f(a)*. From the present language, it is still clear that *m(a)* and *k(a)* were once used to form intransitive verbs, whereas the function of *f(a)* has very much bleached. A number of prefixes are still used productively. First, the prefix *far-*, discussed in 4.3.1.4, is used to express total negative affectedness. The prefix *ve-* is used as a verbalizer. When used with numerals or nouns, it forms verbs that attribute a quality or a property. When used with loan words or certain postverbs, however, it can be used to form verbs of whatever semantic or syntactic category. Two other verbal prefixes, *ák-* 'also' and *k-* 'use' will be discussed at the end of this chapter.

4.3.1.1 The prefix *m(a)-*

As was shown in Chapter 2 on phonology, the Biak language has an extensive set of word-initial clusters. Many of these clusters have historically been formed on the basis of one of the prefixes *ma-*, *fa-*, and *ka-*. In many cases, the *a* of the prefix has been lost, so that we are left with the sequence of two consonants.¹⁴ The prefix **ma-* is discussed in Evans (2003:268-79) as a proto-Oceanic prefix, having the function to derive intransitive verbs with Undergoer subject (2003:300). Although Biak is not an Oceanic language, the Oceanic languages form a sister node with the North Halmahera-Western New Guinea subgroup (Cf. 1.3.1). It is not surprising, therefore, that we find reflexes of **ma-* in Biak, and that it is still possible to find traces of an original function that is close to the function of POC **ma-*.

The prefix *ma-* or *m-* is not productive anymore, as for the majority of verbs containing *m(a)-* the original unprefixated base is lost. This section first discusses those *m(a)-* prefixed verbs for which the unprefixated base is still attested in the language, either as a postverb or as a verb. Most of these verbs belong to the semantic field of destruction. After this, attention will be paid to *m-* prefixed words for which the unprefixated base is not attested as an independent word anymore. A reasonable number of these verbs can be characterized as experiential verbs (several of which are ambitransitive).¹⁵

The corpus contains a few *m-* initial verbs of which the unprefixated base is still attested. Most of these verbs belong to the semantic field of destruction. For some of them, the unprefixated base is not attested as an independent verb, but only as a postverb (cf. section 4.3.2). The following table gives both the prefixed verbs and the unprefixated postverbs:

¹⁴ Cf. Blust (1978: 194), who describes syncope of *a* as one of the processes leading from proto-Austronesian to Numfor, and give **maCa* > *mka* 'eye' as an example.

¹⁵ The special function of *m(ě)-*, which is clearly the same prefix as Biak *m(a)-*, was already observed by Van Hasselt (1905:12). He has some interesting observations, coming very close to what is described in the present section. He points to the fact that for some of the words the root (Dutch: 'grondwoord') is still attested in other words, as in *mkák* 'fear' vs *fakak* 'frighten'. He also observed the relation to the use of *mě* in other languages, as indicating 'verbs with passive meaning'. On the function of Numfor *mě* he remarks: 'Op 't oog lijken woorden als *mnaf* (hooren), *mam* (zien), *mkak* (vreezen) enz. actief, doch bij nadere beschouwing toonen ze toch hun passief karakter. Want het zien en hooren geschiedt in de meeste gevallen buiten de wil van hem, die ziet of hoort.' My translation: 'at first sight words like *mnaf* 'hear', *mam* 'see', *mkak* 'fear' etc. seem active, but on closer inspection they show their passive character. Because the seeing and hearing in most cases happens without control from the side of the hearer or see-er'. He then goes on to give a number of minimal pairs to show this 'passive meaning', like *kok* 'break down (transitive)' vs *mkok* 'broken down' transitive, or *uk* 'separate' (in verbal compounds, cf. my discussion on postverbs in 4.3.2.1 below) and *muk* 'broken'. In line with the observations made in the current section, most verbs are either experiential verbs or verbs that express a negative affectedness of the Agent.

Table 9 *m*-prefixed verbs and corresponding verbal affixoids

<i>m</i> -prefixed verb	postverb
<i>muk</i> 'be in two'	<i>uk</i> 'in two'
<i>mkir</i> 'have hole(s)'	<i>kir</i> 'make hole(s)'
<i>msawk</i> 'be torn'	<i>sawk</i> 'tear'
<i>msasr</i> 'be torn'	<i>sasr</i> 'tear'

All of the *m*-prefixed verbs in Table 9 are intransitive, while the postverbs are used to form transitive verbs (or verbal complexes, cf. 4.3.2).¹⁶ The following two sentences exemplify the pair *mkir* – *kir*:

- (38) *Bín* *anine* *iwan* *kiru* *kruvni*.
 bín an-i-ne i-wan kir=u kruvni=i
 female GIV-3SG.SPC-this 3SG-stab make.hole=U cloth=3SG.SPC
 'This woman stabs a hole into the cloth.' [CB_P_45]

- (39) *Kruvni* *anine* *imkir*.
 kruvni an-i-ne i-mkir
 cloth GIV-3SG.SPC-this 3SG-have.a.hole
 'This cloth has / gets a hole.' [CB_P_45]

The following table gives *m*-prefixed verbs for which the unprefixed base is attested as an independent verb.

Table 10 *m*-prefixed verbs and related unprefixed verbs

<i>m</i> -prefixed verb	verbal stem
<i>mkók</i> 'demolish(ed) (ambitransitive) ¹⁷	<i>kok</i> 'demolish'
<i>mriwr</i> 'smashed'	<i>riwr</i> 'smash'
<i>mkikr</i> 'shake' (ambitransitive)	<i>kikr</i> 'shake' (transitive)

The unprefixed and prefixed forms differ in their argument structures. While the unprefixed forms can only be used transitively, two of the prefixed verbs are S=O ambitransitives (*mkók* and *mkikr*), while one is intransitive (*mriwr*). The subject of the intransitive corresponds to the Undergoer of the transitive, as is illustrated in the following sentence-pair:

- (40) **Gelas** *ine* *imriwer*.
 gelas i-ne i-mriwr
 glass 3SG.SPC-this 3SG-smashed
 'This glass is smashed.' [e1]

¹⁶ The postverb *kir*, however, can also form intransitive verbs, such as *snai kir* 'light open', used to refer to the sky opening up after a shower.

¹⁷ As can be observed in Table 10 and Table 14, a number of *m*-prefixed and *k*-prefixed roots end in a long vowel + consonant, while their unprefixed counterpart ends in a short vowel + consonant. This is true for *m-kók* vs. *kok* in Table 10 and *k-bás* vs. *bas* and *kpéf* vs. *pef* in Table 14. This suggests a possible correlation between reduction of *a* in the prefixes *ma-* and *ka-* and lengthening of the following vowel. The relation is not absolute, however, in that we also find the pair *fis-kfis* in Table 14, and a number of other *m*-prefixed forms ending in a short vowel, like *msar*, *mnan* and *mrer* in Table 12.

(41)	<i>Rum</i>	<i>skovaniwa,</i>	<i>ryiwr</i>	<i>i.</i>
	rum	sko-v=an-i-wa	r<y>iwr	i
	house	3PC-POS=GIV-3SG.SPC-over.there	<3SG>smash	3SG
	'Their house over there he has demolished it.' [el]			

Two of the three verbs above again belong to the semantic field of destruction; only *mkikr* cannot be considered belonging to this field, but should rather be considered as a verb of caused or spontaneous movement, as discussed in 4.2.2 above. This may explain why the prefixed form is ambitransitive; it is used in both transitive and intransitive predicates.

Considering the verbs whose unprefixated base is no longer attested as an independent word or suffix, it cannot be proven that these verbs indeed contain a prefix *m(a)-*. It is remarkable, however, that virtually all of the *m(a)-* initial verbs are intransitive or ambitransitive.¹⁸ Quite a few of them are verbs that express feelings or perceptions, which I will refer to as 'sentience verbs'. These are listed in the following table.

Table 11 *m(a)*-initial sentience verbs

<i>verb</i>	<i>meaning</i>	<i>verb</i>	<i>meaning</i>
<i>mrów</i>	thirsty	<i>mser</i>	drunk ¹⁹
<i>manunf</i>	numb	<i>mander</i>	be touched
<i>marvyas</i>	sneeze	<i>marisn</i>	happy
<i>mrús</i>	sleepy	<i>mnaf</i>	hear, listen
<i>msór</i>	angry	<i>mríf</i>	laugh

As discussed in 4.2.3.1 above, several sentience verbs should be classified as transitive verbs that allow for context-independent object elision. This is true for all of the verbs given in Table 11 above, except for *mrów* and *manunf*, which can only be used intransitively.²⁰ Most of the other *m*-initial verbs describe either a change of state or the resultant state. These verbs are listed in Table 12 below. Note that all of the verbs have a negative connotation:

Table 12 *m(a)*-verbs expressing change of state or its result

<i>verb</i>	<i>meaning</i>	<i>verb</i>	<i>meaning</i>
<i>mrúr</i>	sink	<i>mrer</i>	extinguished
<i>msar</i>	sink slowly ²¹	<i>mrén</i>	fall apart
<i>msawr</i>	be drowned	<i>mrón</i>	go to weeds
<i>mnan</i>	have a hole / cavity ²²	<i>myomk</i>	fade
<i>msúr</i>	collapse		

The following *m*-initial verbs refer to states or properties:

¹⁸ I include all *mC*-initial verbs and all polysyllabic *ma*- initial verbs. Words beginning with *me*, *mi*, *mo* or *mu* are not included, because the chance that they contain a prefix *m-* is smaller than for the *mC* and *ma* initial words just given.

¹⁹ This verb is probably related to *ser* 'fill'.

²⁰ For *marvyas* 'sneeze', the transitive use has not been checked.

²¹ There is a meaning difference between *msar* and *mrúr*, which is too subtle to be described precisely in this context. *Msar* is used for sinking slowly, and can also be used with an object which expresses the stimulus that makes the subject sink, as in *wai iwa i-msar kawasai* 'canoe 3SG.SPC-over.there 3SG-sink people-3SG. SPC' -> 'that canoe is overloaded with people.'

²² *mnan* refers to cavities in trees or the ground (cf. Van Hasselt 1947), whereas *mkir*, given in Table 9, seems to express that something has been pierced.

Table 13 *m*-initial verbs referring to states or properties

<i>verb</i>	<i>meaning</i>	<i>Verb</i>	<i>meaning</i>
<i>mkei</i>	free	<i>mnir</i>	sour
<i>manan</i>	light	<i>mrúk</i>	cloudy
<i>marvak</i>	heavy	<i>myun</i>	rain
<i>marsyor</i>	heavy (for living humans)	<i>mrαι</i>	white, ripe
<i>makr</i>	itchy	<i>mnis</i>	similar
<i>marm</i>	bear fruit	<i>marvus</i>	nearly cooking

Note that three of the verbs have initial *mar-*, which may be an allomorph of *ma-*, but might also have had a different function. For a number of verbs, finally, the (original) function of the prefix cannot be tracked down anymore. These are the following: *mku* 'persevere', *mnasn* 'prophecy' and *mrán* 'walk'

Summarizing, virtually all *m(a)*-initial verbs are either intransitive verbs or transitive verbs that allow for context-independent object elision. This is a clear proof of the historical relation with the detransitivizing POC **ma* described by Evans (2003). Although Evans describes **ma-* as forming verbs with Undergoer subjects, however, not all of the *m(a)*-prefixed verbs in present Biak have Undergoer subjects. Many sentience verbs are transitive, where the subject fulfills (by definition) the Actor and not the Undergoer-role, as in *yamsór aw* '1SG-angry.with 2SG' -> 'I am angry with you.' It should be noted, however, that Actors of sentience verbs are semantically closer to Undergoers than Actors of other verbs, since Actors of sentience verbs are 'affected' Actors (cf. 4.2.3.1.).

4.3.1.2 The prefix *k(a)*-

Evans (2003:279-300) mentions a Proto-Oceanic prefix **t(a)*- that, like **m(a)*-, had a detransitivizing function. In Biak, the prefix *k(a)*-, related to **t(a)* by a correspondence *k~t* (cf. 2.2.1), is not productive, just as we have seen for the prefix *m(a)*-. The number of verbs with initial *k(a)*- is smaller than that with initial *m(a)*-, and only for a very small number of verbs is the unprefixated base still attested. On the one hand, there are three *k*-prefixed verbs whose unprefixated base functions as a postverb (cf. section 4.3.2 below). They are given in Table 14 below. On the other hand, the language has a number of *k(a)*-prefixed verbs whose base is also attested as an independent verb, to which I will come back below (Table 15).

Table 14 *k*-prefixed verbs and related postverb

<i>k-prefixed verb</i>	<i>postverb</i>
<i>kpéf / kméf</i> 'shatter'	<i>pef</i> 'shatter'
<i>kbás ~kvás~kábas~ákbás</i> 'loose(n)'	<i>bas</i> 'loosen'
<i>kfís</i> 'loose' (intr)	<i>fís</i> 'loosen'

The postverbs in the table above are used in the formation of transitive verbs. Of the *k*-prefixed verbs, *kpéf* 'shatter' and *kfís* 'loose' are intransitives, while *kbás* [etc] 'loose' is ambitransitive. The intransitives denote the effect of the event on an Undergoer participant, and do not imply an initiating participant. Although it is impossible to refer explicitly to an initiating participant, the verbs are neutral to the question whether the event is caused or not (i.e. whether it has come about spontaneously). Consider the following examples:

- (42) *Snon* *ine* *kyam* *dawdiwr* **wortelsya.**
 snon i-ne k<y>am daw~diwr wortel=s-ya
 male 3SG.SPC-this <3SG>hammer RED~smash carrot=3PL.AN-SPC
 'This man hammers the carrots into pieces.' [CB_P21]
- (43) **Wortel** *sine* *sikpéfe.*
 wortel s-i-ne si-kpéf
 carrot 3PL.AN-SPC-this 3PL.AN-shatter
 'The carrots shatter.' [CB_P21]

Sentence (42) and (43) are used as description of the same event, shown to the consultant on a film. Example (42) is a description of what the consultant was watching, while the second is his answer to the researcher's question what happened to the carrots. Although it is clear that the shattering is caused by an external agent, it is perfectly possible to use the intransitive *kpéf*. In the following example, however, it is clear that no Agent is implied:

- (44) *Mov* *risnna* *nakpéf* *rande (...)*
 mov risn=na na-kpéf ran-re
 place wave=3PL.INAN.SPC 3PL.INAN-shatter to.o.there-land
 'The place where the waves shatter on the land...' [KSam]

As stated above, the language also has a number of *k(a)*-prefixed verbs whose base is also attested as an independent verb. These are given in the table below:

Table 15 *k*-prefixed verbs and related unprefixed verb

<i>k</i> -prefixed verb	verbal stem
<i>kafayov</i> 'placed with open side down'	(<i>fayov</i> 'turn over') ²³
<i>kanow</i> 'lift'	<i>now</i> 'lift'
<i>kápas</i> 'loose'	<i>pas</i> 'pluck'
<i>kápaf</i> 'fall down (of ripe fruit) ²⁴	<i>paf</i> 'cut off'
<i>kvós</i> 'come out (of egg)'	<i>vos</i> 'divide in two' (e.g. of coconut)
<i>kamrúk</i> 'cloudy'	<i>mrúk</i> 'cloudy'

In these verb pairs the relation between the prefixed and unprefixed forms is less systematic than for the forms in Table 14 above. In the case of *kafayov* vs. *fayov*, both verbs are intransitives and have different but related semantics. The verbs *kanow* 'lift' and *now* 'lift' synchronically appear to be synonyms: both are transitive verbs, as is clear from the following examples:

- (45) *Yakanow* *vrasí.*
 ya—kanow vra-sí
 1SG—lift hand-3PL.ANIM
 'I lift my hands.' [MSaa]

²³ The form *fayov* was not attested in the corpus, but was taken from Van Hasselt 1947. Although the existence of the form *fayov* in the Numfor dialect can serve as a strong indication that the form *kafayov* is formed by prefixation, it cannot be used to claim the existence of the form in the Wardo dialect.

²⁴ I consider *ka* and *ká* as (remnants) of the same prefix.

- (46) *Sunow* *suvrasna*.
 su-now su-vra-sna
 3DU-lift 3DU-hand- nonSG.AN-3PL.INAN
 'The two lifted their hands.' [FPep]

In the pair *kápas* 'loose' vs. *pas* 'pluck', finally, the syntactic relation between the verbs is clear: *kápas* is intransitive, while *pas* is transitive. The semantic relation is less transparent, but still traceable: *kápas* can refer to something like a nail being loose, while *pas* is used for plucking a bird (i.e. loosening its feathers).

The language contains quite a number of *k(a)*-initial verbs that do not have an unprefixated counterpart. Some of these *k(a)*-initial verbs are probably residues of *k*-prefixated verbs. Synchronically, however, the group of *k(a)*-initial verbs as a whole does not form a homogeneous group. We not only find intransitive verbs like the ones given in Table 14 above, but also transitive verbs like *ksof* 'accuse', *kafrok* 'stab' and *kapar* 'give birth to' and *káfos* 'squeeze'. From a synchronic point of view it is not possible to decide whether these verbs are relics of *ka*- prefixation or not.

The language also contains traces of a prefix *kar(a)*-, which may be originally the same prefix as *k(a)*. In one case, we find both the base-form, and a *k*-prefixated form, and a *kar*-prefixated form, without any notable difference in meaning. This is the case for the verbs *apr* 'fold': the language has the verbs *apr* 'fold', *kapr* 'fold' and *kárapr* 'fold'. Another pair of verbs showing traces of prefixation with *k*- or *kara* is *kdúr~karadúr* 'rumble'. A postverb containing *kar*- is *karandír* 'bordered', based on the noun *andír* 'side'. This postverb is semantically related to another postverb *káris* 'aside', based on the noun *ris* 'side' prefixed with the prefix *ka*-.

Summarizing, the language again shows traces of a prefix *k(a)*- that must once have been productive, but has fossilized in the course of time. The verbs in Table 14 and some of the verbs in Table 15 seem to suggest that the prefix was used predominantly to form 'Undergoer verbs' whose sole argument undergoes a change of state. The use of *k(a)*-, then, seems more restricted than that of *m(a)*-, as the latter prefix is not only found in verbs with 'Undergoer subjects', but also with a number of sentience verbs, whose subjects are more like Actors than like Undergoers.²⁵

4.3.1.3 The prefix *f(a)*-

There is quite a convincing relation between the use of *fa*- at the beginning of the word, and some kind of 'causative' meaning compared to the meaning of the word without *fa*-. This relation was noted before for the Numfor dialect by Van Hasselt (Van Hasselt 1905:13) In all probability, we have to do here with a relic of the Proto-Austronesian **pa*- which was used to derive causative verbs (Evans 2003:240). Although the process is not productive anymore, some relics can be found. This is especially clear in case both the prefixed and the unprefixated form are attested. Those *fa*- initial verbs whose unprefixated counterpart still exists are listed in the following table:²⁶

²⁵ As was shown above, quite a number of sentience verbs are transitive verbs, whose subjects are Actors by definition (except in passives, which are very rare).

²⁶ Other verbs starting with *fa* are the following, for which I have not (yet) found a counterpart without *fa*. I have left out those verbs that I analyzed as relics of prefixation with *far*: *fadadurn* (red. of *fadurn*) 'go out to seek food', *fadavk* 'make a bridge', 'make a connection', *fadur* 'take care of', *fadwer* 'change', *fadi* 'row fast', *fafafn* 'dirty', *fafar* 'be red and white from heat', *fafaya* 'regret', *fafayaf* 'angry', *fakwak* 'take care of', *famankir* 'decorate'

Table 16 Verbs formed with *fa*, compared to their counterparts without *fa*

<i>fa</i> -prefixed verb	verbal stem
<i>fan</i> 'feed'	<i>an</i> 'eat' (tr.)
<i>fasnai</i> 'make visible'	<i>snai</i> 'visible'
<i>fakaki</i> 'stand on one's toes'	<i>kaki</i> 'long'
<i>faba</i> '(seek to be) big in' 'boast in'	<i>ba</i> 'big'
<i>farwe</i> 'change', 'substitute'	<i>rwe</i> 'change clothes'

Syntactically, all of the *fa*-prefixed verbs formed in the table above are transitive, except for *fakaki*. In several cases, *fa*- still has a causativizing function, as is clear from the relation between *snai* 'visible' and *fasnai* 'make visible':

- (47) *Wósyá* *isnai* *ra* *dirya*.
wós=ya i-snai ra di-rya
word=3SG.SPC 3SG-visible along place-ANAPH
'The word is clear as it is.' [VYev]

- (48) *Fyasnai* *vravam* *vyesi*.
f<y>asnai vra-vam v<y>e=s-i
<3SG>make.visible arm-inside <3SG>POS=3PL.ANIM-SPC
'He shows the inside of his hands.' [CB_P_47]

Comparison of the other forms also shows that the prefix may once have had a causativizing function, but does not have this systematic function anymore. In conclusion, then, for the words of which the base without *fa* (still) exists as a separate word, it is possible to discover traces of a former prefix *fa*-. This prefix probably once had a causativizing function, and was related to POC **pa*.

4.3.1.4 The prefix *far*-

The prefix *far*- still seems to be productive. It forms verbs in which the subject is not the initiator of the event expressed by the predicate, but rather affected by it. The majority of verbs formed with *far*- are intransitive. It usually has a negative connotation, and may signify iterativity, as in *farvrasn* 'repeatedly fall and get up again' and *farpnes* 'walk along dry and wet places at the shore'. In line with this, it is not surprising to find it combined with partially reduplicated verb roots, as in *farkarar* 'break at many places' or *farandinm* 'be a drunkard.' It is also found with totally reduplicated verb roots as in *farmukmuk* 'broken at many places' or *fardufduf* 'totally ill'. (Cf. 7.2.3 on reduplication.) The following table lists some prefixed stems and compares the meaning of the prefixed forms to the stems without a prefix:

famku 'endure', *famyan* 'be slave of', *fánam* 'close', *fandun* 'need', *fapasow* 'soaked through and through', *fara* 'hold the rudder', *faryan* 'move to another place', *fasaw* 'fast', *fasáyan* 'perspire', *fasis* 'quiet', *fasos* 'make ready' 'be ready', *fasowar* 'feel annoyed'.

Table 17 Verbs formed with prefix *far*, expressing negative affectedness of S

<i>Far-prefixed (possibly reduplicated) verb</i>	<i>verbal stem</i>
<i>farkarar</i> 'break at many places'	<i>kar</i> 'break'
<i>farvyar</i> 'swollen at many places'	<i>vyar</i> 'swollen'
<i>farvrasn</i> 'repeatedly fall and get up again'	<i>vrasn</i> 'fall'
<i>farandinm</i> 'be a drunkard' ²⁷	<i>inm</i> 'drink'
<i>farmkirmkir</i> 'full of holes'	<i>mkir</i> (n) 'hole', (v) 'have a hole'
<i>farmukmuk</i> 'broken at many places'	<i>muk</i> (v) 'break'
<i>farmsawk</i> 'torn'	<i>msawk</i> (v) 'torn'
<i>farmsawk(m)sawk</i> 'torn at many places'	<i>msawk</i> (v) 'torn'
<i>fardúfdúf</i> 'totally ill, at many places'	<i>dúf</i> (v) 'ill'
<i>farríkrík</i> 'covered with blood all over'	<i>rík</i> (n) 'blood', (v) 'bleed'
<i>fardokdok</i> 'totally wet'	<i>dok</i> (v) 'wet'
<i>farkpor</i> 'too thick' (el)	<i>kpor</i> (v) 'thick'
<i>farsrepk</i> 'too thin' (el)	<i>srepk</i> (v) 'thin'
<i>farmafn</i> 'too fat' (el)	<i>mafñ</i> (v) 'fat'

Another related function of *far* is to signify reciprocity, as can be seen in the last examples of Table 18. This reciprocal function of *far-* is probably related to Proto-Austronesian **pa[R]i* (Lynch 2002:83), expressing reciprocal or collective action, as in the following examples:

Table 18 *far-* and reciprocity

<i>far-prefixed (possibly reduplicated) verb</i>	<i>verbal stem</i>
<i>farsrow</i> 'meet' (v, <i>intransitive</i>)	<i>srow</i> 'meet'
<i>farvuk</i> 'be married' (v, <i>intransitive</i>)	<i>vuk</i> 'give, marry'
<i>farkin</i> 'guide', 'hold hands' (v, <i>transitive</i>)	<i>kfin</i> 'guide', <i>kin</i> 'grasp' ²⁸

The corpus has only a few examples of reciprocal *far-*, and the reciprocal function of *far-* does not seem to be productive anymore. This is not true for the function of iterativity and total affectedness, which might have developed out of a former reciprocal function.²⁹

4.3.1.5 The prefix *ve-*

In the Biak language, there are at least six homophonous forms *ve*. There is the preposition *ve* 'to' (3.6.3), the relativizer *ve-* (10.3), the possessive marker *ve* (3.2.6, 6.1), the auxiliary verb *ve* 'be about to' (4.2.6), the verb *ve* 'give' that is also used in causative constructions (10.5.2), and the 'verbalizer' *ve-*. In this section we confine ourselves to the verbalizer *ve-*, which is inflected just like *ve* 'give', but differently from the auxiliary *ve*. Table 19 compares the inflection of the auxiliary verb *ve* to that of the verb *ve* 'give' and the 'verbalizer' *ve-*. As can be seen, the crucial difference is made in the forms for 2SG, 3SG, 3PL.AN and 3PL.INAN.

²⁷ The reduplicated form (*far-*)*andinm* differs slightly from the normal verbal reduplicated form *an~inm*.

²⁸ Note that prefixation of *kfin* with *far* would lead to *farkfin* and not to *farkin*. The form *kin* 'grasp' is not attested in my corpus (except in compounds like *kin.fir* 'choose'), but given in Van Hasselt 1947. The form *kfin* may have grown out of *f(a)- + kin* 'grasp', with metathesis of *f* and *k*, cf. 2.6.5.

²⁹ There is a sort of implicational relation between reciprocity and iterativity. A reciprocal action like 'the people hit each other' can be viewed of as consisting of a number of actions, directed from each of the Actors to one or more of the Undergoers. This relation might account for the possible development of *far-* from a marker of reciprocity into a marker of iterativity. Note that the same relation between reciprocity and iterativity is attested in verbal reduplication, which basically expresses iterativity or durativity, but which can also be used for the expression of reciprocal events (cf. 7.4.2.1, example (45)).

Table 19 Inflection of auxiliary verb *ve* and the other verb(s) *ve*

	auxiliary: 'want, be about'	'give', verbalizer
1SG	<i>ya-ve</i>	<i>ya-ve-</i>
2SG	<i>wa-ve</i>	<i>be-</i>
3SG	<i>i-ve</i>	<i>v-y-e-</i>
1DU.EXC	<i>nu-ve</i>	<i>nu-ve-</i>
1DU.INC	<i>ku-ve</i>	<i>ku-ve-</i>
2DU	<i>mu-ve</i>	<i>mu-ve-</i>
3DU	<i>su-ve</i>	<i>su-ve-</i>
3PC	<i>sko-ve</i>	<i>sko-ve-</i>
1PL.EXC	<i>(i)nko-ve</i>	<i>(i)nko-ve-</i>
1PL.INC	<i>ko-ve</i>	<i>ko-ve-</i>
2PL	<i>mko-ve</i>	<i>mko-ve-</i>
3PL.AN	<i>si-ve</i>	<i>se, s-ve-</i>
3PL.INAN	<i>na-ve</i>	<i>ne, n-be-</i>

The verbalizer *ve-* is used in combination both with loan words, and with indigenous stems of various lexical categories. The verbalizer *ve-* is a prefix, because nothing can intervene between the verbalizer and the word that is made into a verb.³⁰ It has a predominantly grammatical function, which is the reason why it has been glossed as 'VBLZ': the prefix turns non-verbal roots into verbs, thus allowing the possibility to form a predicate with this *ve-* initial verb as its head. The semantics of the prefix are bleached, and directed by the lexical category of the stem that it combines with. This section discusses the semantics of the different lexical categories combining with *ve-* one by one.

4.3.1.5.1 *Ve-* in combination with numerals or other quantifiers

Verbs formed by *ve-* in combination with a numeral simply mean 'be one', 'be two' etc.³¹ The verb *ve-esser~ve-oser* 'be one' can also be used in a more figurative sense, of 'be united.' Some examples are the following:

- (49) *Dúfur ur na randum nbe-oser.*
 d-úf ur na ran-rum n-ve-oser
 3SG-take together 3PL.INAN to.o.there-inside 3PL.INAN-VBLZ-one
 'It (a big wave) took them (the houses) altogether inwards becoming one.' [GBbh]

- (50) *Mko-ve-oser kukr su.*
 mko-ve-oser kukr su
 2PL-VBLZ-one with 3DU
 'You are one with the two.' [DAbf]

³⁰ Although I have analyzed the formative *ve* as a prefix, it is atypical for a prefix in one respect, in that a prefixed noun can still be modified by a numeral. The following expression was used eleven times (mainly by one informant) as description of film-scenes showing how things were broken up: *v<y>e-mun ri suru* '<3SG>VBLZ part NUM.LNK two'-> 'it is/becomes two parts'. The verbalizer *ve*, then, verbalizes the entire noun phrase [*mun ri suru*]. In elicited speech, informants agreed upon the acceptability of a phrase like *v<y>e-guru e-pyum* '<3SG>VBLZ-teacher REL-good' -> '(s)he is a good teacher', where the noun is modified by a short relative clause.

³¹ The adverbial use of *ve-num*, referring to the 'number of times' is discussed in 3.9.2.

- (51) *Kás rarvav kove-suru.*³²
 k^h-as rar-vav ko-ve-suru
 1PL.INC-swim to.o.there-down 1.PL.IN-VBLZ-two
 'When we swim down we are two.' [ZKam]

Ve can also be used in combination with the interrogative quantifier *fis*:

- (52) *Sko-ve-fis?*
 sko-ve-fis
 3PC-VBLZ-how.much
 'How many are they?' [el]

4.3.1.5.2 *Ve-* in combination with nouns

When *ve-* combines with a noun N, the verb means something like 'be(come) N, qualify as N', or 'be qualified by N'. First consider (53) and (54).³³

- (53) *Vyesnonkbor kaker.*
 v<y>e-snon-kbor kaker
 <3SG>VBLZ-male-adolescent still
 'He is still an adolescent.' [el]
- (54) *Vye-lahir kwar fa vyeromawa.*
 V<y>e-lahir kwar fa v<y>e-romawa
 <3SG>VBLZ-born already CONS <3SG>-VBLZ-son
 'It was born already so that it became / was a son.' [MSqq].

The semantics of the verbs in the examples above differ slightly from the verbs' semantics in the examples below. Both in the examples above and in the examples below, however, the verb expresses that a certain property or quality, expressed by the nominal root, is assigned to the subject.

- (55) *Ben ine vyeapel.*
 ben i-ne v<y>e-apel
 plate 3SG.SPC-this <3SG>VBLZ-apple
 'This plate has a decoration of apples on the surface.' (* has apples lying on it) [el]
- (56) *Iya vyemnóre.*
 i-ya v<y>e-mnór
 3SG -PART <3SG>VBLZ-mucus
 'One had a snotty nose.' [SKab]

³² The fact that the speaker uses a plural instead of a dual may be due to language loss, in the sense that some more complex features of the language like the dual are not found in his speech.

³³ Steinhauer (2005:813) generalizes over *ve*-+N and *ve*-+Num and in these cases glosses *ve-* as 'QUA', indicating that it has the meaning 'qualifying as, function as, become.'

- (57) *Sup ine vyeikáke.*
 sup i-ne v<y>e-ikák
 land 3SG.SPC-this <3SG>VBLZ-snake
 'This area has snakes.' (can be qualified as having snakes) [el]
- (58) *Vye-par.*
 v<y>e-par
 <3SG>VBLZ-wound(ed)
 'He is wounded.' [CB_P_18]
- (59) *Inoi ine vyepráfe.*
 inoi i-ne v<y>e-práf
 knife 3SG.SPC-this <3SG>VBLZ rust
 'This knife is rusty.' [GT12]
- (60) *Fyom anya vyebei.*
 fyom an -ya v<y>e-bei
 vase GIV-3SG.SPC <3SG>VBLZ-shell
 'The vase was empty (lit. was shell.)' [FFai]

The examples above show that verbs formed by *ve*-prefixation express a quality or property assigned to its argument. Although the verbs (55) through (60) can be seen as referring to a sort of possession relation, the use of the verbs under discussion is restricted to situations where this possession relation can be conceived of as a property or a qualification of the verb's argument. Further research is needed, however, on the precise semantics of this construction.³⁴

4.3.1.5.3 *Ve*- in combination with postverbs

As described below, postverbs form 'verbal complexes' with verbal stems. Whereas some postverbs are attested as independent verbs, others are used only in combination with a verbal stem. Some of the postverbs can also be prefixed with *ve*-. Here, the function of *ve*- seems purely grammatical. Although it might be expected that *ve*- again forms verbs assigning a quality or a property (on the basis of the examples above), this is not the case. The semantic relation between the verb and the subject is fully determined by the postverb, and most verbs express an event rather than a quality or property, as is true for the verbs given in Table 20:

Table 20 Postverbs and prefixation with *ve*-, the verb expressing an event rather than a quality / property

<i>postverb</i>	<i>ve+postverb</i>
<i>usr</i> 'follow' (also as verb 'follow')	<i>ve+usr</i> 'follow or examine carefully'
<i>uk</i> 'in two'	<i>ve-uk</i> 'decide'
<i>wark</i> 'guard, block'	<i>ve-wark</i> 'forbid'
<i>séwar</i> 'endeavor' (also as verb 'seek')	<i>ve-séwar</i> 'endeavor'

The following examples illustrate the use of *usr* 'follow' as a verb and as a postverb. It is used as a verb in (61), while (62) and (63) illustrate the use of *usr* 'follow' as a postverb, the latter with the verbalizer *ve*.

³⁴ In addition to examples like (55) and (57) above, most of the examples in non-elicited data refer to situations where the verb's argument is covered by N on the surface.

- (61) *Wusr kawasa kove vebur*
 w-usr kawasa ko-ve ve-bur
 2SG-follow people 1PL.INC-POS REL-leave

ansiwara.

an-si-wa-ra

GIV-3PL.ANIM-SPC-over.there-to.o.there

'Follow our people over there that have left.' [TWex]

- (62) *Wamar ido, pon mura voi*
 wa-mar ido pon mu-ra voi
 2SG-die THEM 2SG.first PATH-to.o.there but

insape na yákyaw usr aw.
 insape na y-ák-yaw usr aw
 then then 1SG-also-pursue follow 2SG

'When you die, you just go first to over there but later I will follow after you.' [MYae]

- (63) *Kora ma ine kofúr adat bar,*
 ko-ra ma i-ne ko-fúr adat bar
 1PL.INC-go to.here 3SG.SPC-this 1PL.INC-do tradition thing³⁵

koveusru adat (...)
 ko-ve-usr=u adat
 1PL.INC-VBLZ-follow=U tradition

'Given that we have come here, we do the *adat*, we follow the *adat (...)*' [DAfb]

Other examples of *ve* combining with a postverb are the following:

Table 21 Other examples of postverbs prefixed with *ve*

<i>postverb</i>	<i>ve+postverb</i>
<i>fasís</i> 'quiet'	<i>ve-fasís</i> 'quiet'
<i>pro</i> 'forget' (also as verb: 'deaf')	<i>ve-pro</i> 'forget'
<i>farander</i> 'forget' (also as verb: 'forget')	<i>ve-farander</i> 'forget'

4.3.1.5.4 *Ve-* in combination with loan words and words from other categories

In combination with (verbal) loan words, the verbalizer *ve-* again has a purely grammatical function; it makes it possible for the loan word to function as a verb. An example of the use of *ve-* in this way is given with the following sentence:

- (64) *Indya yavemulai farfýar anya.*
 indya ya-ve-mulai RED.fár an-ya
 so 1SG-VBLZ-begin RED.tell GIV-3SG.SPC
 'So I begin the story.' [MSam]

³⁵ The noun 'bar' forms compounds with the preceding noun, and has a kind of mitigating function.

The verbalizer is also found with onomatopoeic words, as in the following examples:

- (65) *Karu ine yaso i fa*
karu i-ne ya-so i fa
stone 3SG.SPC-this 1SG-throw 3SG CONS
- vye-krunkran ro pipaya dori.*
v<y>e-krunkran ro pipa=ya do-ri
<3SG>VBLZ-'krunkran' LOC tube-3SG.SPC inside-POS.SG
'This stone I throw so that it makes a 'krunkran' sound inside the tube.' [e1]

4.3.1.5 Conclusion

The Biak language has a prefix *ve-* that is used to make stems of different lexical categories into verbs, allowing the speaker to use this verb as head of a predicate. In case the prefix combines with numerals or nouns, the verb usually expresses a property or qualification of the sole argument of the verb. In case the prefix combines with loans or stems from other lexical categories, the meaning of the verb is determined by the semantics of the base.

4.3.1.6 The prefix *ák*: also

The prefixes *ák-* 'also' and *k-* 'use', discussed in this and the following section, differ from the prefixes discussed so far in several respects. Unlike the petrified prefixes *m(a)-*, *k(a)-* and *f(a)* they are very productive, and can be used with verbs of most semantic or syntactic classes. Unlike the prefix *ve-*, they only combine with verbal stems. In addition, they have a rather different semantic function from the prefixes discussed till now, as will be made clear below.

The prefix *ák-* 'also' is found on verbs of different semantic and syntactic classes. It express that either the subject or the object of the verb is involved in an event, *just like other entities* having the same kind of involvement in the event. The following two sentences are examples in which *ák-* has scope over the subject. The first example is taken from a story about a snake and a chicken. It tells how the chicken is angry with the snake, because he has been waiting for him for days. After the chicken has told the snake that he does not want to be friends with him anymore, he hits the snake. Then the story tells how the snake also gets angry, *just like the chicken*:

- (66) *Mura ido ikák anya dákrmomen.*
mura ido ikák an-ya d-ák-rmomn
afterwards THEM snake GIV-3SG.SPC 3SG-also-ferocious
'Given this, the snake also got angry.' [MIcf]

Another example is taken from a story about a certain Christmas service, in which people are allowed to go up the pulpit and tell something. A certain old man is asked to go up, *just like the others*:

- (67) *Indya sk-ór mansarya iya*
indya sk-ór man-sar=ya i-ya
so 3PC-call male-old=3SG.SPC 3SG-SPC

fa dákéke.

fa d-ák-ék

CONS 3SG-also-climb

'So they asked a certain old man to also climb (the pulpit).' [MBaf]

While in the examples above *ák-* was used to compare the referent of the subject with others, it can also be used to compare the referent of the object with other entities involved. In the following passage, taken from a sermon, the first *ák-*, in *ák-kunm* 'also-bow' expresses that the speaker and the addressees should bow for Jesus, just like others do. The second *ák*, in (68), has scope over the object *ko* '1PL.INC', and expresses that the candleholder (symbol of God's presence) will guide 'us', *just like it guides others*.

(68) *Kora muma kákkunm ve Yesus Kristus.*
 ko-ra mu-ma k-ák- kunm ve Yesus Kristus
 1PL.INC-go PATH-to.here 1PL.INC-also- bow to Jesus Christ
 'Let 's come here and also bow before Jesus Christ.' [PDde]

(69) *Insama ido, kaku kaku veri kakidiyan emas*
 insama ido kaku kaku veri kakidiyan emas
 CONS THEM real real precisely candle.holder gold

anine, dákvepimpin ko.
 an-i-ne d-ák-ve-pimpin ko
 GIV-3SG.SPC-this 3SG-also-VBLZ-guide 1PL.INC

'In order that the golden candle holder really will guide us too.' [PDde]

Finally, in the sentence below, *ák-* expresses that he did not have a bracelet, like he *did* have other clothes:

(70) *Sansun vyena naisya voi,*
 sansun v<y>e=na na-is-ya voi
 clothes <3SG>POS=3PL.INAN.SPC 3PL.INAN-PRED-that but

dáknayu sarako va.
 d-ák-na=yu sarak=o va
 3SG-also-have=YU bracelet=nonSP.SG not

'He did have clothes, but he did not also have a bracelet.' [MIam]

In summary, the prefix *ák-* 'also' expresses that either the subject or the object is involved in an event in the same way as other entities are. It can usually be translated by the English 'also', but seems to have a more restricted use. While the English 'also' can also be used to express the participation of one and the same entity in more events (as in 'I walk and also eat an ice-cream'), the corpus only contains examples where Biak *ák-* marks the participation of more entities in one and the same event.

4.3.1.7 The instrumental prefix *k-*

Just like the prefix *ák-*, the prefix *k-* is found with both transitive and intransitive verbs. It is used to express that the action expressed by the verb is performed with the use of an Instrument. An example of the use of *k-* is given here:

- (71) *Vín* *anine* *d-úf* *kamkamya*
 vín an-i-ne d-úf kamkam=ya
 female GIV-SPC-this 3SG-pick.up hammer=3SG.SPC
- fa* *ikkam* *diwr* *ben* *an-ya.*
 fa i-k-kam diwr ben an-ya
 CONS 3SG-use-hammer smash plate GIV-3SG.SPC
 'This woman takes a hammer to hammer the plate into pieces.' [S_T_40]

Note that we have to do with two clauses, linked by the conjunction *fa* 'CONS'. The use of *k-* expresses that the hammer (*kamkam*) which has just been put on stage functions as the Instrument in the event of 'shattering by hammering' (*kam diwr*). In the great majority of the attested cases, the noun referring to the Instrument is introduced in the same sentence, but in different clauses. Two further examples are the following:

- (72) *Pyan* *karu* *aimunna* *fa* ...
 p<y>an kar=u ai-mun=na fa ...
 <3SG>touch break=U wood-part=3PL.INAN.SPC CONS
- ive* *ikkankun,* *ive* *ikfúr* *for.* ..
 i-ve i-k-kan~kun i-ve i-k-fúr for ***
 3SG-want 3SG-use-RED~burn 3SG-want 3SG-use-make fire ***
 'He breaks pieces of wood for ... he wants to use them to prepare food, he wants to use them to make fire.' [S_T_119]

In (73) below, the verb *ikákvake* contains both the prefix *ák-* 'also' and the prefix *k-* 'use'. The noun phrase *ker mkuno* 'a little' refers to the Instrument.

- (73) *Dóve* *vye-dákam* *napirman* *vyesya*
 d-óve v<y>e-dákam napirman v<y>e=s-ya
 3SG-say <3SG>VBLZ-guest cross-cousin <3SG>POS=3PL.AN-SPC
- fa* *svuko* (...)
 fa s-vuk=o
 CONS 3PL.AN-give=O
- ro* *fasama* *ido* *nya* *kermkuno* *ido,*
 ro fasama ido n<y>a ker-mkun=o ido
 thing CONS THEM <3SG>have part-small=nonSP.SG THEM

ikákvake.

i-k-ák-vák

3SG-use-also-pay

'He thought to visit his cousins so that they would give ... something, so that when he had a little **he could also use it to pay** (just like the others).' [MSgw]

The Instrument need not be mentioned explicitly, however. The only condition seems to be that the preceding context or the context of utterance evokes a concept or entity that can be conceived of as an 'instrument'. Consider the following example:

- (74) *Indya mkora ma koveoser,*
 indya mko-ra ma ko-ve-oser
 so 2PL-go to.here 1PL.INC-VBLZ-one
- masama kokmám pumo Wardoi*
 masama ko-k-mám pum=o Wardo=i
 CONS 1PL.INC-use-look forward=O Wardo=iPROP
 'So let's come here and be one and use it (i.e. that unity / that situation)
 to look after Wardo.' [VYhj]

Here, the prefix *k-* expresses that the coming together of the people can be used to take care after Wardo. The prefix *k-* is a grammaticalized form of the verb *vuk* 'give'. The instrumental use of *vuk* and its grammaticalization into an instrumental prefix is discussed in more detail in 10.12.

4.3.2 Verbal complexes formed with postverbs

This section describes combinations of a verb with an element that directly follows the verb, forming a 'verbal complex'. The element following the verb is called a postverb, the properties of which will be discussed later on in this section. The combination of the verb and the postverb is considered a special construction, and can be represented as follows:

Figure 2 Verb combining with a postverb (the comma should be read as 'followed by')

(Verb, postverb)_{complex predicate}

In this section, postverbs will be referred to as PV's and the construction will be called a V-PV-construction. An example of a V-PV construction is formed by the words in bold in the following sentence, where *rowr* is a verb and *usr* functions as a postverb:

- (75) *Mura, suvefasís vo **surowr** **usr**.*
 mura su-ve-fasís vo su-rowr usr
 afterwards 3DU-VBLZ-quiet SIM 3DU-hear follow
 'Then, they were quiet and tried to follow (the frogs) by listening.' [FFcg]

Not all verbs partaking in a V-PV construction are also attested as independent verbs; a few verbs, like *mer* 'strike hard', are used only in combination with a postverb.³⁶ The term 'construction' makes no claims with respect to the question whether the V-PV combination should be considered a word or rather a syntactic construct. Irrespective of the answer to this question, the V-PV construction can be considered as a complex predicate.³⁷

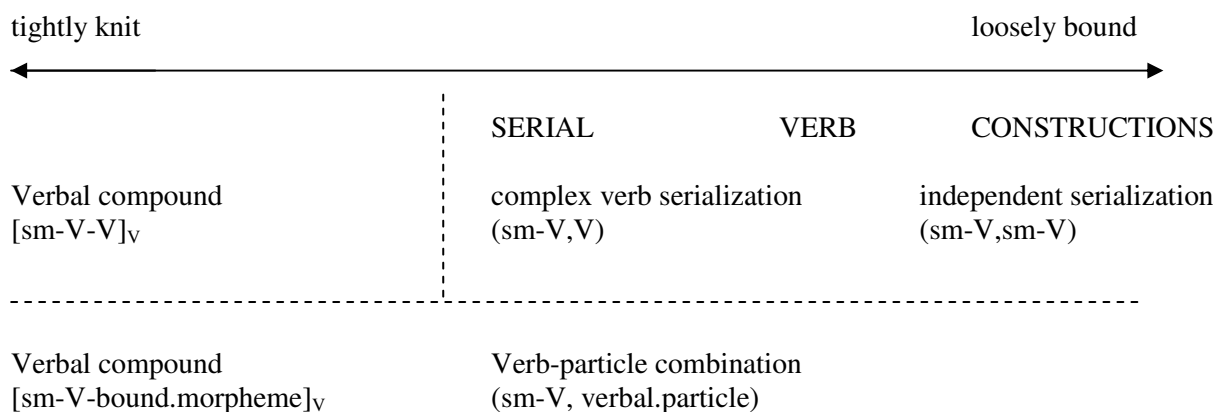
³⁶ In such cases, it is the paradigmatic relation with other verb-postverb combinations that allows for the analysis of the combination consisting of a verb and a postverb. Thus, *mer-kir* is analyzed as a verb *mer* 'strike.hard' followed by a postverb *kir* 'make.hole', because *kir* is also attested as a postverb in combination with other verbs.

³⁷ V-PV constructions can be analyzed as *complex predicates* in the following sense:

- Their argument structure is complex, in the sense that two or more semantic heads contribute arguments (Cf. Blom 2005: 5, following Butt 1997:108).
- Their grammatical functional structure is simple, in the sense that they have only one subject and only one object.
- The phrase structure may be either simple (one word) or complex (more words).

The designation 'V-PV-construction' generalizes over a range of verbal complexes with different morphosyntactic structures. The various morphosyntactic structures described here can be seen as forming a continuum from loosely bound constructions to tightly knit ones. At one end of the continuum, we find V-PV constructions that should be analyzed as serial verb constructions. At the other end we find V-PV constructions that should be seen as compound verbs (or even as verbs followed by a derivational suffixoid, see below). Within the group of serial verb constructions, a distinction can be made between independent serialization and complex verb serialization, partly following a division given by Van Staden and Reesink (to appear). The cline from serial verb construction to compounds is paired by another cline, where the postverb is not attested as an independent verb. Both clines are combined in the following figure:

Figure 3 Different V-PV constructions (sm- should be read as: subject-marker prefix)



The figure above suggests a diachronic development from independent serialization to complex verb serialization to verbal compounds. In addition, complex verb serializations may develop into verb-particle combinations, as will become clear below from those instances where the morphological form of the verbal particle betrays a verbal origin. The figure does not claim that all verbal particles have developed out of verbs, however.

Independent serialization can be defined as the direct sequence of two fully inflected verbs that are part of one and the same intonational phrase and have coreferential subjects and –if present– one and the same object. Independent serialization is relatively rare in Biak, and attested only in the combination of certain verbs of movement and position with a following verb. It brings about a durative meaning, as in the following two examples:

- (76) *Vyark iwáf romá vyedya ro rumahsakit.*
 v<y>ark i-wáf romá v<y>e=d-ya ro rumahsakit
 <3SG>lie 3SG-wait son <3SG>POS=3SG-SPC LOC hospital
 'He stays waiting for his son in the hospital.' [el]
- (77) *Rofan anine ifrar syéwaro*
 rofan an-i-ne i-frar s<y>éwar=o
 dog GIV-3SG.SPC-this 3SG-run <3SG>seek=O

romámkun anine.
 romá-mkun an-i-ne
 child-little GIV-3SG.SPC-this
 'This dog ran seeking for this child.' [FYcf]

Complex verb serialization differs from independent serialization in that the second verb, filling the postverb position, is uninflected. The following examples are illustrations of complex verb serializations. First consider (78), which differs minimally from (76) above:

(78) *Vyark wáf romá vyedy ro rumahsakit.*
 v<y>ark wáf romá v<y>e=d-ya ro rumahsakit
 <3SG>stay wait son <3SG>POS=3SG-SPC LOC hospital
 'He stays and guards his son in the hospital.' [el]

Example (78) has slightly different semantics from (76). While (76) describes a sitting and waiting, *wáf* has a more specific meaning when used as an uninflected postverb, and expressing something like 'guarding' or 'taking care of'. Another illustration is given with (79) below. On the one hand, it illustrates a complex verb serialization, in the combination of the inflected *sufyów* 'shout' and the uninflected *séwar* 'seek'. On the other hand, it exemplifies an independent serialization in the sequence of the inflected *suy-ors* '3DU-stand' and the inflected *sufyów* '3DU-shout':

(79) *Suyors sufyów séwar*
 suy-ors su-fyów séwar
 3DU-stand 3DU-shout seek

mov sai nari mankroderya ryoroi.
 mov sai nari mankroder=ya r<y>oro=i
 place which then frog=3SG.SPC <3SG>LOC=3SG.SPC
 'The two stood trying to find out by shouting where then the dog was.' [FFcd]

Complex verb serializations are paired by "**verb-(verbal) particle combinations**". In the case of verb-particle combinations, the postverb position is filled by an element that is only found in this structural position and not attested as an independent verb (or member of another lexical category). The particle relates the complex event to an Undergoer, as will be explained in 4.3.2.1 below. In quite a number of cases, the element is clearly historically related to a verb. The first sentence (80) contains the particle *us* 'with', which cannot be related to a verb:

(80) *Imrán us Magriti.*
 i-mrán us Magrit=i
 3SG-walk with Margrit=3SG
 'He walks with Margriti (i.e. is in love with her).' [BVcf]

Likewise, the particle *kir* 'make a hole' in the following example is not attested as an independent verb. It is clearly related, however, to the verb *mkir* 'have a hole', containing the petrified prefix *m-* that is described earlier in this Chapter (4.3.1.1):

- (81) *Yamer* *kir* *mankoko* *pnór* *ine.*
 ya-mer kir man-koko pnór i-ne
 1SG-strike.hard make.hole bird-chicken egg 3SG.SPC-this
 'I (deliberately) made a hole into this chicken egg. (i.e. caused a hole by striking)' [el]

Both the verb-particle combinations and the complex verb serializations differ from *verbal compounds* in that a limited number of adverbs (like *ker* 'continually' and *monda* 'only') can intervene between the verb and the postverb. The following two examples illustrate the difference. While the verb and the particle can be separated by an adverb in (82), the compound *mrán-kan~kan~kunm* 'walk-RED~RED~bow' cannot be broken up.

- (82) *Vyark* (*ker*) *wark* *aya*
 v<y>ark ker wark aya
 <3SG>lie continually block 1SG
 'He (always) lies and blocks the way for me.' [el]

- (83) *Imrán* (**ker*) *kankankunem.*
 i-mrán (ker) kan~kan~kunm
 3SG-walk (continually) RED~RED~bow
 'He always walks with his head bent down.' [el]

Although (82) and (83) show that a difference between compounds and non-compounds (complex verb serializations or verb-particle combinations) can be made, it should be noted that the corpus contains hardly any examples of adverbs intervening between the verb and postverb. Virtually all the examples of adverbs intervening between verb and postverb were given in elicitation. As the possible intervention of an adverb has been tested for part of the V-PV constructions only, the rest of this section will not classify the presented V-PV construction as either compounds or non-compounds.³⁸ Instead, it will deal with the semantic relation between verb and postverb, the semantics and syntactic valency of V-PV complex as a whole and of its constituting parts. For each of the postverbs it will be indicated whether it is also attested as an independent verb. As indicated in Figure 3 above, postverbs that are not attested as independent verbs have been termed as verbal particles. Among those verbal particles, those that cannot be separated from the verb (i.e. those that form the second part of a verbal compound) can be considered (verbal) suffixoids. As stated in 3.1, they are like suffixes, in that they are bound to roots of a fixed lexical category. On the other hand, they resemble roots in that they have a richer lexical content than is usual for affixes.

Postverbs basically fall into two groups with respect to the influence they have on the valency of the V-PV construction as a whole. One group forms transitive complex predicates, irrespective of the valency of the verb it combines with. The other group combines with intransitive position- or motion verbs and does not change the valency of the verb. The remainder of section 4.3.2 describes the semantic and syntactic properties of V-PV constructions in more detail, following the just given division. Subsection 4.3.2.1 discusses transitive predicates, while 4.3.2.2 deals with intransitive predicates. Subsection 4.3.2.3, finally, gives some other subconstructions, whose semantics cannot be subsumed under the semantics of the constructions discussed in subsections 4.3.2.1 and 4.3.2.2.

³⁸ As the status of a V-PV combination as either compound or non-compound often is unclear, I have chosen to write the verb and the postverb as separate words.

4.3.2.1 Transitive predicates: PV expresses RELATION to O, V expresses MEANS

In the most common V–PV combination, the combination forms a complex transitive predicate in which the postverb expresses the relation of an event to O, while V expresses the means by which this relation is established. The semantic schema for this type of complex predicates is given in Figure 4.

Figure 4 Subconstruction 1: MEANS for RELATION

([V] , [postverb]) _{verbal complex}	
V =	transitive or intransitive verb
postverb:	usually either attested as an independent verb (usually transitive) or historically related to a transitive verb
postverb expresses	'relation' of the predicate to O ³⁹
verb expresses	the means by which the relation is established
valency of V-PV	2 (= transitive)

The following table lists some of the postverbs participating in this schema and gives an example of their combining with a verb. The table also indicates whether the postverb is also attested as an independent verb.

Table 22 V-Postverb combinations; PV expresses RELATION to O, V expresses MEANS. TR=transitive

<i>Postverb</i>	<i>Example of combination with verb</i>	<i>Corresponding words</i>
<i>srow</i> 'find, meet'	<i>frar</i> 'run' -> <i>frar srow</i> 'meet <O> while running'	<i>srow</i> (v, TR) 'meet'
<i>smai</i> 'get'	<i>rowr</i> 'hear' -> <i>rowr smai</i> 'get <O> by hearing', <i>mám smai</i> 'get <O> by seeing'	<i>smai</i> (v, TR) 'get'
<i>wark</i> 'guard, block'	<i>vark</i> 'lie' -> <i>vark wark</i> = 'lie and guard <O>' <i>mám</i> 'see' -> <i>mám wark</i> = 'guard by watching'	<i>dwark</i> (v, TR) 'block', <i>ve-wark</i> (v, TR) 'withhold'
<i>pum</i> 'push forward'	<i>mrán</i> 'walk' -> <i>mrán pum</i> = 'walk against <O> so that <O> has to go aside'	<i>pum</i> (v, TR) 'strike on s.t. that makes noise'
<i>epn</i> 'press tightly'	<i>kain</i> 'sit' -> <i>kain epn</i> = 'press <O> by sitting on it'	<i>epn</i> (v, TR) 'make a wall around'
<i>séwar</i> 'endeavor'	<i>ór</i> 'call' -> <i>ór séwar</i> 'endeavor to obtain <O> by calling'	<i>séwar</i> (v, TR) 'seek'
<i>usr</i> 'follow'	<i>rowr</i> 'hear' -> <i>rowr usr</i> 'follow <O> by listening'	<i>usr</i> (v, TR) 'follow'
<i>dofn</i> 'over'	<i>ék</i> 'rise' -> <i>ék dofn</i> 'step over'	no corresponding root
<i>us</i> 'with'	<i>anan</i> 'eat' -> <i>anan us</i> 'eat together with'	no corresponding root
<i>fán</i> 'feel'	<i>mám</i> 'see' -> <i>mám fán</i> 'try to find out by seeing'	<i>fán~pan</i> (v, TR) 'touch,feel'

Although most postverbs are also attested as verbs, their meaning as a postverb is often bleached and can be quite different from the meaning of the independent verb, as is the case

³⁹ In most cases, the postverb also contains a reference to the Causer of the event, which then is coreferential with the subject of the main verb. This is clear from the following facts. First, those postverbs that are attested as independent verbs are usually attested as *transitive* verbs, having a Causer as one of their arguments. Second, the postverbs *sawk* through *bas* in Table 23 below all do away with the detransitivizing prefixes *m-* and *k-* that are attested in corresponding intransitive verbs. In other words, these postverbs express that the affectedness is caused and has not come about spontaneously. Finally note the examples (89) through (92). These examples show that it is – at least in these cases - possible to use postverbs that do not refer to a Causer. In these examples, the non-reference to a Causer is used to express that the affectedness of O was not intended. The examples can be contrasted to other cases where the postverbs do contain reference to a Causer and where the affectedness of O is intended.

for *epn* and *pum*, for example. In all of the examples above, the postverb expresses a relation with O, which means that all the instances of this subconstruction are transitive. Whereas the V-PV combination is transitive, it can take both transitive and intransitive verbs as input. The following examples illustrate how the intransitive verbs *vark* 'lie' and *kain* 'sit' form transitive predicates in combination with the postverbs *epn* and *wark*. First, examples (84) and (85) show that *frar* and *vark* are intransitive verbs, as they cannot occur with an object:

(84) **Mobilya** *ifrar* (* *mankokoi*).
 mobil=ya i-frar mankoko=i
 car-3SG.SPC 3SG-run chicken=3SG.SPC
 'The car drove (* the chicken).' [el]

(85) *Vyark* (* *i*)
 v<y>ark i
 <3SG>lie 3SG
 'He lay (*it).' [el]

In combination with the postverbs *wark* and *epn*, however, the verbs form a complex transitive predicate, which can co-occur with an overt object, as in the following examples:

(86) *Syun* *ri* *avyav* *anya* *randum*
 s<y>un ri avyav an-ya ran-rum
 <3SG>enter LOC cave GIV-3SG.SPC to.o.there-inside

fama, ikákya, vyark wark i.
 fama ikák=ya v<y>ark wark i
 but snake=3SG.SPC <3SG>ly block 3SG
 'He went inside the cave, but, a snake, it was lying on
 the ground and blocking it.' [MMbf]

(87) *Mankoko* *ine* *imar,*
 man-koko i-ne i-mar
 bird-chicken SPC.3SG-this 3SG-die

snar mobilya ifrar epn i .
 snar mobil=ya i-frar epn i
 because car=3SG.SPC 3SG-run push.tight 3SG
 'This chicken died because a car ran over and pushed it (flat).' [el]

In combination with verbs of perception, *epn* has the meaning 'remember', while the verb of perception expresses what is the basis for the remembering:

(88) **Hanya** *ro* *kakeru* *eve-wárisna*
 hanya ro kaker=u e-ve-wáris=na
 only thing plant=U REL-VBLZ-long.living=3PL. INAN

na sker fa, síkmám epn monda.
 na s-ker fa si-k-mám epn monda
 then 3PL.AN-plant CONS 3PL.AN-use-see press only
 'Only the long living plants, these they planted to use them to remember by
 looking.' [ALce]

In Figure 4 above, it is stated that the postverb expresses the relation of the complex verb to the object. This relation may be one that causes the object to be affected. Examples of postverbs expressing the affectedness of O are given in Table 23:

Table 23 V-Postverb combinations; PV expresses AFFECTEDNESS of O, V expresses MEANS. TR = transitive, INTR = intransitive, ambitr = 'ambitransitive'

<i>Postverbs</i>	<i>Example of combination with verbal root</i>	<i>Corresponding words</i>
<i>ánink</i> 'press'	<i>os</i> 'throw' -> <i>os ánink</i> = 'hit and press <O>'	<i>ánink</i> (v, TR) 'press'
<i>kavr</i> 'return'	<i>ún</i> 'take' -> <i>ún kavr</i> 'take and return <O>'	<i>kavr</i> (v, S=O ambitr) 'return'
<i>kar</i> 'break'	<i>pan</i> 'hold, touch' -> <i>pan kar</i> = 'hold and break <O>'	<i>kar</i> 'fell' (v, TR), <i>kar</i> 'break' (v, INTR)
<i>par</i> 'wound'	<i>mer</i> 'strike hard' -> <i>mer par</i> = 'strike and wound <O>'	<i>par</i> (n) 'wound', <i>ve-par</i> (v) 'be wounded'
<i>sawk</i> 'tear'	<i>pan</i> 'hold' -> <i>pan sawk</i> 'hold and tear <O>'	<i>sawk</i> (v,TR) 'tear', <i>msawk</i> 'torn'
<i>paf</i> 'make fall'	<i>mer</i> 'strike hard' -> <i>mer paf</i> = 'strike and make fall <O>'	<i>paf</i> (v, TR) 'separate'
<i>kir</i> 'make.hole'	<i>wan</i> 'stab' -> <i>wan kir</i> = 'stab and make a hole into <O>'	<i>mkir</i> (v, TR / INTR) 'have/make a hole'
<i>diwr</i> 'smash'	<i>kam</i> 'hammer' -> <i>kam diwr</i> = 'hammer and smash <O>'	<i>mriwr</i> (v,INTR) 'smashed'
<i>uk</i> 'make.two'	<i>mun</i> 'hit' -> <i>mun uk</i> = 'hit and make two <O>'	<i>muk</i> (v, INTR) 'become two'
<i>péf</i> 'shatter'	<i>kam</i> 'hammer' -> <i>kam péf</i> = 'hammer and shatter <O>'	<i>kpéf</i> (v, INTR) 'shatter'
<i>bas</i> 'loosen'	<i>os</i> 'throw' -> <i>os bas</i> = 'throw s.t. and loosen <O>'	<i>kbás</i> (v, INTR) 'loose'
<i>kápaf</i> 'fall'	<i>mer</i> 'strike hard' -> <i>mer kápaf</i> = 'strike <O> hard so that <O> falls'	<i>kápaf</i> (v, INTR) 'fall (of fruits from tree)'

Only the first six of the postverbs presented in Table 23 above are also attested as independent transitive verbs. The postverbs *kir* 'make hole', *diwr* 'smash' and *uk* 'make two' are related to *m-* prefixed verbs, described in 4.3.1.1 above, while *péf* and *bas* are related to *k-* prefixed verbs, described in 4.3.1.2 above. Given the detransitivizing function of *k-* and *m-* and the paradigmatic relation with other postverbs, these postverbs are most probably historically related to transitive verbs. The postverb *kápaf* is remarkable, in that it seems to contain the detransitivizing *k~ka~ká-* prefix (given the existence of the intransitive verb *kápaf* and a possibly related *paf* 'separate'), but nevertheless functions as a postverb in transitive predicates.

Although examples of intransitive verbs functioning as uninflected postverb in transitive V-PV constructions are rare, in elicitation I found an interesting opposition, illustrated in the following minimal pair:

- (89) *Yamer kir mankoko pnór ine.*
 ya-mer kir man-koko pnór i-ne
 1SG-strike.hard make.hole bird-chicken egg 3SG.SPC-this
 'I (deliberately) made a hole into this chicken egg. (i.e. caused a hole by striking)' [el]

- (90) *Yamer* *mkir* *mankoko* *pnór* *ine.*
 ya-mer mkir man-koko pnor i-ne
 1SG-strike.hard have.hole bird-chicken egg 3SG.SPC-this
 'I (accidentally) made a hole into this chicken egg. (i.e. caused a hole by striking)' [e]

While the first example expresses a deliberate action, the use of the intransitive *mkir* expresses that the action is performed by accident. The same opposition can be observed in (91) and (92):

- (91) *Yúf* *mnis* **gelas** *ine* *va* *vo,*
 y-úf mnis gelas i-ne va vo
 1SG-take fit glass 3SG.SPC-this not SIM

yamer *kpéf* *i*
 ya-mer kpéf i
 1SG-strike.hard shatter 3SG
 'I did not pick up the glass rightly so that I struck and made it shatter.' [e]

- (92) *Yamer* *pef* *i.*
 ya-mer pef i
 1SG-strike.hard shatter 3SG
 'I deliberately struck and made the glass burst.' [e]

Some V-PV combinations have fairly lexicalized meanings, like the combination of verbs of movement with *uk* (in two), such as *mrán uk* 'walk in.two'. Unlike other V-*uk* combinations, the complex predicate is intransitive, and has the meaning 'to take a shortcut'. An example is given with the following sentence:

- (93) *Yamrán* *uk* *fasaw* *ve* **pasar**
 ya-mrán uk fasaw ve pasar
 1SG-walk in.two fast to market
 'I take the shortest way to the market' (lit. 'walk (the area) in.two.') [YMcc]

A comparable meaning is found with the verb *ún* 'take'. This is one of the few examples where a transitive verb combining with a postverb results in an intransitive verbal complex:

- (94) *D-ún* *uk* *va.*
 d-ún uk va
 3SG-take in.two not
 'He has not passed here.' [FFbf]

Finally note that a number of the verbs that combine with postverbs are not attested as independent verbs. This is true, for example, for the verb *mer* 'strike hard', which is only found in combination with a postverb indicating how O is affected, like *par* 'wounded', *paf* 'make.fall' or *kápaf* 'fall'.

4.3.2.2 Intransitive motion / positional predicates: PV specifies or modifies V

Most of the V – PV constructions discussed above were transitive, irrespective of the valency of V. This is not true for the construction described here, in which both the verb and the V-PV

construction are intransitive. The postverb further specifies the motion or position expressed by the verb:

Figure 5 POSITION/MOTION-SPECIFICATION

Subconstruction 2: POSITION/MOTION-SPECIFICATION

[[V] [postverb]_{verbal complex}

V = intransitive verb of motion or position
 postverb: usually (but not always) attested as intransitive or
 ambitransitive verb
 verb expresses MOTION /POSITION
 postverb expresses SPECIFICATION of V
 valency of V-PV 1 (intransitive)

Some examples of postverbs partaking in this subconstruction are given in Table 24. Each postverb is followed by a verbal complex formed by means of the postverb. The last column indicates whether the postverb is also attested as an independent verb or related to other lexical items.

Table 24 V-Postverb combinations; V expresses motion / position, PV expresses specification. TR = transitive, INTR = intransitive, ambitr = ambitransitive

<i>Postverb</i>	<i>Example of combination with verbal root</i>	<i>Corresponding words</i>
<i>kan~kunm</i> 'RED~bend'	<i>mrán</i> 'walk' -> <i>mrán kankunm</i> 'walk while bending down'	<i>kan~kunm</i> (v, INTR) 'RED~bend'
<i>árok</i> 'diagonal'	<i>vark</i> 'lie' -> <i>vark árok</i> 'lie diagonally'	<i>árok</i> (v, INTR) 'be diagonal'
<i>sífsyof</i> 'cross over'	<i>enf</i> 'sleep' -> <i>enf sífsyof</i> 'sleep with bodies crossing over'	<i>syóf</i> (v, INTR) 'pass'
<i>karandír</i> 'bordered'	<i>vark</i> 'lie' -> <i>vark karandír</i> 'lie at the border'	<i>andír</i> (n) 'border' ⁴⁰
<i>káris</i> 'side'	<i>vark</i> 'lie' -> <i>vark káris</i> 'lie aside'	<i>ris</i> (n) 'side'
<i>fádás</i> 'on one's back'	<i>vark</i> 'lie' -> <i>vark fádás</i> 'lie on one's back'	<i>fádás</i> (v, INTR) 'lie on one's back'
<i>pápark</i> 'curl(ed) up'	<i>vark</i> 'lie' -> <i>vark pápark</i> 'lie curled up'	<i>pápark</i> (v, INTR) 'curl up'
<i>kárapr</i> 'fold(ed)'	<i>kain</i> 'sit' -> <i>kain kárapr</i> 'sit with hands folded'	<i>kárapr</i> (v, S=O ambitr) 'fold'
<i>pambar</i> 'turn over'	<i>vark</i> <i>pambar</i> 'lie turned over'	<i>pambar</i> (v, S=O ambitr) 'turn over'

As can be seen in the last column, most of the postverbs participating in this subconstruction are also attested as independent verbs. In case the postverb is also attested as an independent verb, it is legitimate to consider the constructions as serial verb constructions or verbal compounds, depending on the separability of the verb and the postverb. The few postverbs that are not attested as independent verbs and that can be separated from the verb could also be analyzed as manner adverbs. They are like manner adverbs, in that they can be conceived of as modifiers of the verb, but probably differ from most other manner adverbs in that they have a more limited distribution.

⁴⁰ The prefixes *ka~ká* and *kar-* found here and in *káris* 'aside' might be related to the prefix *ka~ká-* and *kar-* that are found in combination with verbs, as described in 4.3.1.2. Note, however, that the prefixes here combine with nouns, not verbs. A prefix *ka-* is also found in *mam-be-ka-naek* 'male-REL-KA-parallel.sibling -> 'parallel siblings'.

That the postverb does not change the valency of the verb (in other words: the V-PV has the same valency as V) is clear from the following example, as the preposition *ro* cannot be left out.

- (95) **Botol** *anine* *vyark* *árok*
 botol an-i-ne v<y>ark árok
 bottle GIV-3SG.SPC-this <3SG>lie across
- *(*ro*) *karuya* *bo.*
 ro karu=ya bo
 LOC stone-3SG.SPC upside
 'This bottle lies across on top of a stone.' [OJ26]

In the example above, the stone (*karu*) cannot function as direct object. In this respect, the constructions discussed here differ from the constructions discussed in 4.3.2.1 above. The V-PV combinations discussed in 4.3.2.1 are transitive, even when the verb is intransitive, as was illustrated in (86) and (87) above.

The S=O ambitransitive *pambar* 'turn over', on the other hand, can be used both in an intransitive predicate (as in *vark pambar* 'lie turned over') and as a transitivizing postverb, as in the following example:

- (96) *Imrán* *pambar* *wai* *ine.*
 i-mrán pambar wai i-ne
 3SG-walk turn.over canoe 3SG-this
 'He turned over this canoe by walking against it.' [el]

4.3.2.3 Other subconstructions

The table below sums up most of the other attested postverbs, forming combinations with V that cannot directly be subsumed under one of the subconstructions above.

Table 25 Other V-PV combinations. TR = transitive, INTR = intransitive, ambitr = ambitransitive

Postverb	Example of combination with verbal root	Corresponding words
<i>wapn</i> 'alone'	<i>inm</i> 'drink' -> <i>inm wapn</i> = 'drink without anything to eat'	no corresponding root
<i>su</i> 'as.repayment'	<i>mun</i> 'hit, kill' -> <i>mun su</i> 'kill as repayment'	<i>su</i> (v, TR) 'push'
<i>farander</i> 'forget'	<i>fnak</i> 'play' -> <i>fnak farander</i> 'play while forgetting everything around'	<i>farander</i> (v, TR) 'forget'
<i>pyan</i> 'help'	<i>ún</i> 'take' -> <i>ún pyan</i> 'take as a help'	<i>pyan</i> (v, INTR) 'easy'
<i>wáf</i> 'wait'	<i>vark</i> 'lie' -> <i>vark wáf</i> 'stay while wait'	<i>wáf</i> (v, TR) 'wait'
<i>sadwer</i> 'change'	<i>mar</i> 'die' -> <i>mar sadwer</i> 'die instead of'	<i>fadwer</i> (v, S=O ambitr) 'change'
<i>syóf</i> 'in opposite direction of'	<i>ki</i> 'float' -> <i>ki syóf (dwán)</i> 'float in opposite direction (of the stream)'	<i>syóf</i> (v, INTR) 'pass'
<i>kafr</i> 'miss'	<i>for</i> 'catch' -> <i>for kafr</i> 'not succeed in catching'	<i>kafr</i> (v, TR) 'not succeed', 'miss' (e.g. a boat)'
<i>pdef</i> 'past'	<i>ser</i> 'reach out' -> <i>ser pdef</i> 'reach past'	<i>pdef</i> (v, INTR) 'go on'
<i>rándak</i> 'begin'	<i>as</i> 'swim' -> <i>as rándak</i> 'swim for the first time'	<i>rándak</i> 'beginning' (n)
<i>so</i> 'accompany'	<i>bur</i> 'leave' -> <i>bur so</i> 'leave together with'	<i>so</i> (v, TR) 'accompany'
<i>kára</i> 'think'	<i>mám</i> 'see' -> <i>mám kára</i> 'think on the basis of having seen'	<i>kára</i> (v, TR) 'think'
<i>fawi</i> 'know'	<i>disn</i> 'sing' -> <i>disn fawi</i> 'know how to sing'	<i>fawi</i> (v, TR) 'know'

I will not discuss each postverb in detail, but just give examples of several of them. First consider *wapn*, which is not attested as an independent root, and should therefore be classified either as a verbal particle or a bound form.⁴¹ It is used in combination with verbs of eating / drinking, to express that one eats / drinks something without the food / drinks that belong to it. Thus, *inm wapn* 'drink WAPN' is used for drinking something without any food, while *an wapn* 'eat WAPN' is used for eating something without the food / drinks that belong to it', as in *d-an wapn fas* '3SG-eat WAPN rice' -> he eats rice without any fish.

The postverb *pyan* 'help' is also attested as an independent verb *pyan* 'easy' and is attested in combination with transitive verbs. It expresses that the event is undertaken to make things easy for someone else, in other words to help him or her. The postverb does not change the subcategorization of the verb. One of the verbs it commonly combines with is *ún* 'take', as in the following example:

- (97) *Be sayur ansya ma yún pyan.*
 be sayur an-s-ya ma y-ún pyan
 2SG.give vegetable GIV-3PL.AN-SPC and 1SG- take easy
 'Give the vegetables here so that I can help you by taking them.' [YMbq]

The following passage, taken from spontaneous conversation, shows the close relation between *pyan* 'easy' as an independent verb and the postverb *pyan* 'easy'. In (98), the speaker tells about a relative who helped him by making ('bumping') a handle around a wood-file:

⁴¹ It has not been tested whether the sequence of verb and *wapn* can be broken up by an adverb. If so, it is a verbal particle, if not, it is a bound form, cf. the outset of 4.3.2 above.

- (98) *Isosn pyan ani.*
 i-sosn pyan an-i
 3SG-bump easy GIV-3SG.SPC
 'He bumped (i.e made.a handle around) it (the wood file) as a help.' [YWfw]

Another speaker reacts, again using the verb *sosn*, but using *pyan* 'easy' as an independent predicate:

- (99) *Yo, isosn fa ipyan.*
 yo i-sosn fa i-pyan
 indeed 3SG-bump CONS 3SG-easy
 'Yes, he bumped (i.e the wood file) so that it (the wood file) was easy (to use).' [YWfx]

Like the postverb *pyan*, the postverb *pdef* is also attested as an independent verb 'go on'. In addition, *pdef* is used as an adverb. Its meaning as an adverb, however, differs from that as a postverb. As a postverb, it forms a transitive predicate, as in the following example:

- (100) *Imrán pdef ábor ine.*
 i-mrán pdef ábor i-ne
 3SG-walk continue bridge 3SG.SPC-this
 'He walked past the bridge (not crossing over it).' [el]

This use is related to but differs from the use of *pdef* as an adverb, as in the following example:

- (101) *Imrán ro ábor ine pdef.*
 i-mrán ro ábor i-ne pdef
 3SG-walk LOC bridge 3SG.SPC-this continue
 'He walked from the bridge onwards.' [el]

In the following example, *pdef* should again be analyzed as an adverb, as it does not alter the valency of the predicate and has the same semantics as the adverb in (101) above.

- (102) *Imrán pdef Ro ábor ine.*
 i-mrán pdef Ro ábor i-ne
 3SG-walk continue LOC bridge 3SG.SPC-this
 'He walked from the bridge onwards.' [el]

4.4 Summary

This chapter discussed both verbal inflection as well as the classification of verbs on predominantly syntactic and morphological grounds. Verbs have been classified syntactically as intransitive, ambitransitive or transitive. In addition, verbs of meteorological condition, the auxiliary verb and a number of verbs allowing for different subcategorizations of Theme and Location were discussed. The rest of this chapter discussed verbal morphology and the formation of verbal complexes, trying to find a relation between the form of verbs and their syntactic (and semantic) properties. The main findings were the following.

- Verbs formed with the fossilized prefix *m(a)-* are intransitives or transitives allowing for context-independent object elision. Some of the few verbs formed with *k(a)-* reflect a former function of *k(a)-* to form intransitives with a sole argument undergoing a change of state.
- Some verbs were originally formed with *fa-*, a prefix that is no longer productive, but had a causativizing function.
- Verbs formed with *far-* are reciprocals, or intransitive verbs expressing negative affectedness of S.
- Verbs formed by *ve-*+Num or *ve-*+N are intransitive, expressing a quality assigned to S.
- The language has two verbal prefixes with a rather different function: a prefix *ák-* 'also', and an instrumental prefix *k-*.
- The language has verbal complexes, formed by the combination of a verb and a postverb. Some of these combinations are like compounds, but others can be broken up by adverbs. Two major classes can be discovered:
 - o First, there is a class of transitive complexes, in which the postverb expresses the relation of the event with an Undergoer, while the verb expresses the means with which this relation is established.
 - o Second, there is a class of intransitive complexes, in which the verb expresses motion / position, and the postverb forms a specification of the meaning of the verb.

5. NOUN PHRASES

5.1 The structure of the noun phrase

The structure of the noun phrase can be presented as in the following schema¹ (for an alternative order of rel.clause and POS see below):

(1) Structure of the noun phrase

head (POS) (rel.clause) ((num.link), num) (article)²

The minimal noun phrase, then, consists of a head only. An example is given with *wonkor* 'crocodile' in (2).

(2) *Wonkor myám fa ro ikáksnoman eba oser.*
wonkor m<y>ám fa ro ikák-snoman e-ba oser
crocodile <3SG>see to.there LOC snake-male REL-big one
'(The) crocodile saw a big male snake.' [KSbt]

In (3), the noun *or* 'sun' is followed by a simple pronominal article =*ya* '3SG.SPC'.

(3) *Orya ikren.*
or=*ya* i-kren
sun=3SG.SPC 3SG-aslant
'The sun was close to setting.' [MSjx]

More complex noun phrases are given in (4) and (5) below.

(4) [*Snon ri kyor anskoine*]_{NP} (...)
snon ri kyor an-sko-i-ne
male NUM.LNK three GIV-TR-SPC-this
[noun num.Link num complex.article]_{NP}
'These three men (...)' [SKab]

¹ The schema given here is a slight simplification, as noun phrases need not be headed by a noun. In such cases, the article nevertheless can be said to mark the phrase of which it is part as a 'noun phrase'. The fact that the article can generalize over these two contexts raises the question whether it is very insightful to refer to phrases marked by articles as 'noun phrases'. It would be defensible to refer to those phrases instead as 'referring expressions' (as does Van Staden in her thesis on Tidore), thus calling these constituents after their main function. One could very well defend the view that it is one of the main functions of an article to mark the preceding constituent as 'referring', although this might pose some problems in the case of markers of nonspecificity. In this thesis, however, I stick to the traditional terminology, using the term 'noun phrase' for 'those phrases that are most commonly headed by a noun.'

² The corpus contains no instances of noun phrases containing both a numeral and a possessive marker, except a number of elicited examples; neither does it provide noun phrases containing both a numeral and relative clause. The placement of the numeral with respect to POS and the relative clause is based on these elicited examples (like *buku v<y>e e-rik an-sko-i-ne* 'book <3SG>POS REL-red GIV-TR-SPC-this' -> 'these three red books of his'). The data are insufficient, then, to describe the possible placement of the numeral with respect to the possessive and the relative clause in any detail.

(5)	[kíf	vye	veyarmaker	ansine] _{NP}	<i>káem</i> ³
	kíf	v<y>e	vey-armakr	an-s-i-ne	káem
	skin	<3SG>POS	REL-scabies	GIV-3PL.ANIM-SPC-this	all
	[noun	POS	rel.clause	complex.article] _{NP}	
	'all this skin that was affected by scabies' [MMix]				

Whereas in most cases the possessive marker precedes the relative clause, as in (5) above, the corpus also contains some examples of the reverse order, as in *rum ve-sren b-an-ine* 'house REL-holy 2SG.POS-GIV-3SG.SPC-this' -> 'this your holy house' (GDab).

As can be seen in the examples (3) through (5) above, the article may fulfill a number of functions, which is also clear from the structure of the complex article presented in Chapter 3 and repeated here:

(6) Structure of the complex article ('givenness', 'specificity' and 'motion ' should be read as 'marker of givenness', 'marker of specificity' and marker of 'motion', respectively)

givenness – person.number.gender - specificity - directional - demonstrative - motion

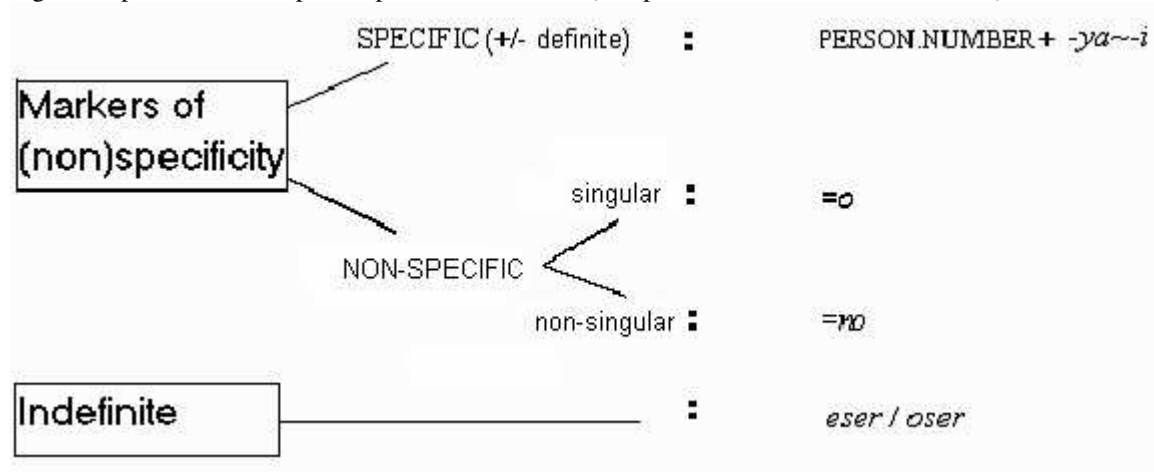
This chapter focuses on a number of functions expressed by the article. First, section 5.2 deals with the article as marker of specificity and nonspecificity. As will be seen, the form of the pronominal article cannot be discussed without reference to the categories of number and person. Following the discussion of specificity and nonspecificity, section 5.3 goes further into those contexts in which the specificity marker is used. A distinction is made between specificity markers combined with a marker of givenness and specificity markers used by themselves. Section 5.3 is followed by a discussion of noun phrases without an article in 5.4, while the Chapter closes with a presentation of noun phrases lacking a nominal head. Directionals, demonstratives and motion markers will be discussed in Chapter 9 on Space. As for the other elements (given in (1) above) making up a noun phrase: numerals have been dealt with in 3.9, possessive markers are discussed in Chapter 6 on possession, while relative clauses will be discussed in Chapter 10 on clause combinations. The categories of number and gender have been given elaborate attention in the overview of nominal subclasses in 3.3.3.2 and 3.3.3.3, respectively.

5.2 Specificity and nonspecificity

The following figure shows the markers of specificity and nonspecificity in their paradigmatic relation. Note that the expression of specificity goes hand in hand with the expression of person and number, while nonspecificity only requires expression of number:

³ As described in 3.10, the marker *kám* directly follows the noun phrase. Note that here we find the form *káem* instead of *káme*, the latter being in accordance with the more usual pattern of epenthesis. Cf. section 2.2.2

Figure 1 Specific and nonspecific pronominal articles (compared to marker of indefiniteness)



The use of the numeral *eser~oser* as marker of indefiniteness is rare, and has been dealt with in the discussion of indefinite pronouns in 3.2.3. The same section offered a description of the indefinite pronouns *nono* and *oso*, which are related to the nonspecific pronominal articles *=o* and *=no* in the figure above. The current section, however, restricts itself to the specific and nonspecific markers as summarized in the figure above. Note that the specific marker generalizes over both definite and indefinite contexts, a point to which we will briefly come back in 5.3.3.

As to the form of the nonsingular nonspecific marker, it is important to distinguish this marker from the NP-final clitic *=no* 'also', which is not part of the pronominal article, but follows it. An example of the use of *=no* 'also' is given with *rofan an-ya=no i-mar* 'dog GIV-3SG.SPC=also 3SG-die' -> 'the dog was also dead' [HKbc]. Here we find the pronominal article, consisting of a marker of givenness *an* plus a specificity marker *-ya*, followed by the clitic *=no*. The nonspecific pronominal article *=no*, however, takes the place of the article given in (1) above, as in *rofan=no* 'dog=nonSP.nonSG'.

This section is structured as follows. First, section 5.2.1 gives the form of the specific markers. Section 5.2.2 focuses on the function of nonspecific markers, and discusses specific markers only as contrastive examples to the use of nonspecific markers. A more elaborate account of the function of specific markers is given in 5.3. This structure is motivated by the conviction that the function of specific markers can only be accounted for by not only contrasting them to nonspecific markers, but also by discussing their relation to the use of the marker of givenness, which is discussed in 5.3.1.

5.2.1 The form of the specific markers

The form of the specific markers has been given in Chapter 4 and is repeated (presented in slightly different fashion) in Table 1 below.

Table 1 Pronominal markers of specificity compared to free personal pronouns and pronominal verbal affixes

	free personal pronoun	pronominal affix			pronominal marker of specificity
		set 1	set 2	set 3	
1sg	aya	ya-	y-	ya-	--
2sg	aw	wa-	w-	<w>	=aw- ya ~aw- i ⁴
3sg	i	i-	d-	<y>	= ya ~= i
1du.inc	ku	ku-	ku-	ku-	=ku- ya ~ku- i
1du.exc	nu	nu-	nu-	nu-	=nu- ya ~nu- i
2du	mu	mu-	mu-	mu-	=mu- ya ~mu- i
3du	su	su-	su-	su-	=su- ya ~su- i
3pc	sko	sko-	sk-	sko-	=sko- ya ~sko- i
1pl.inc	ko	ko-	k-	ko-	=ko- ya ~ko- i
1pl.exc	inko	(i)nko-	(i)nk-	(i)nko-	=inko- ya ~inko- i
2pl	mko	mko-	mk-	mko-	=mko- ya /mko- i
3pl.an	si	si-	s-	s-	=s- ya /s- i
3pl.inan	na	na-	n-	n-	= na

Strictly speaking, only the parts in bold are markers of specificity, as the preceding formatives express person and number, not specificity. In Biak, however, it is not possible to mark a noun phrase as specific without specifying it for number and person. Therefore, to express the unity between the several categories, I will also speak of '(pronominal) specificity markers' to refer to the entire forms as given in the last column of Table 1 above. I will come back to the expression of person at the end of this section.

As can be seen in the table above, all pronominal markers have two allomorphs, one ending in *-i* and one ending in *-ya*. The allomorphs ending in *-i* are used in prepausal position (or intonational phrase-final position) only, while the ones ending in *-ya* can be used in all positions, although their use in prepausal position is not very frequent.⁵ There does not seem to be a semantic or pragmatic difference between the two allomorphs. The following two sentences exemplify the usual pattern.

- (7) *Indya fyanu rofan anya,*
 indya f<y>an=u rofan an-ya
 so <3SG>feed=U dog GIV-3SG.SPC

⁴ For the motivation to consider the simple pronominal articles clitics, see the end of 3.2.1. Complex articles, on the other hand, are considered syntactic words with a limited distribution, as is set out in 3.2.2.

⁵ In the New Testament Translation of 1990, the distribution of =*ya* and =*i* is different. In combination with *an* we find the following: *ani* (3SG), *ansi* (3PL.AN), *ansuya* (3DU), *anskoya* (3TR), irrespective of their position in the clause (prepausal or not). The same distribution is attested for possessive pronominals. All other pronominal articles end in =*ya*. With respect to the distribution of =*ya* and =*i*, it is perfectly possible that there is some dialectal variation. The different versions by the Van Hasselts (1868, 1876, 1905, 1947) – describing the Numfor dialect, which is quite different from the dialect described in this thesis – give no unified account of the function of =*ya* and =*i*. Only Van Hasselt 1905 mentions the use of =*ya* as an article for objects ('voorwerpen'), and states that it 'seems to function as a definite article.' (1905:28). In addition, he states that subjects are followed by *i* or *si*, but from the examples he gives, it is clear that these are analogous to what I have analyzed as verbal prefixes. One of these examples is *man r-y-ob* or *man i rob* 'bird 3SG fly', the former of which even shows incorporation of the pronominal prefix. It seems, then, that the Numfor dialect as described by Van Hasselt has no articles for nouns in subject position, different from the Biak dialect described in this thesis. Note, however, that for some nouns the article in subject position *can* be left out, as will be described in section 5.4.

ifnovku ***mankroderi***.
 i-fnovk=u mankroder=i
 3SG-with=U frog=3SG.SPC
 'So he took care of the dog, together with a frog.' [FAab].

(8) [***Mankroder*** ***anya***]_{NP} *ma*
 mankroder an-ya ma
 frog GIV-3SG.SPC TOP

romámkun ***anya*** *dúf* *i*.
 romá-mkun an-ya d-úf i
 child-little GIV-3SG.SPC 3SG-pick.up 3SG
 'As for the frog, the little child picked it up.' [FPem]

Considering the examples above, =*i* is attested in prepausal *mankroder=i*, while =*ya* (or *-ya*, in combination with the marker of givenness *an*) is attested in both the prepausal *rofan anya* 'this dog' (example (7) and in the non-prepausal noun phrases of (8). It is not possible to replace the *-ya* final allomorphs with *-i* final allomorphs, so that example (9) below is ungrammatical.

(9) * ***Mankroder*** ***ani*** *ma*
 mankroder an-i ma
 frog GIV-3SG.SPC TOP

romámkun ***anya*** *dúf* *i*.
 romá-mkun an=ya d-úf i
 child-little GIV=SPC 3SG-pick.up 3SG

In fast speech, the specificity marker *ya* may be phonologically elided when directly preceding the verb, so that a sequence like *rofan anya d-ák-mar* 'dog GIV-3SG.SPC 3SG-also-die' is realized as [rofanandákmar].

The section closes with some further illustrations of the paradigm given in Table 1 above.

Whereas the majority of noun phrases in the corpus end in 3rd person pronominal markers, the following sentences show both 3rd person pronominal markers and 1st and 2nd person markers. The parts corresponding to the simple pronominal articles have been presented in bold. The three examples below are all taken from monologues uttered at a village meeting, in which reference is made to three village chiefs. In (10), the village chiefs refer to themselves in 1st person exclusive, in (11) the speaker addresses the chiefs in 2nd person plural, while (12) is an example of the village chiefs being talked about in 3rd person paucal.

(10) **kepala.desa** *ri* *kyor* ***an-inko-i-ne***
 kepala.desa ri kyor an-inko-i-ne
 village.chief NUM.LNK three GIV-1PL.EX-SPC-this
 'we the(se) three village chiefs' [VYax]

- (11) *mananwir* *anmkoya*
 mananwir an-mko-ya
 village.chief GIV-2PL-SPC
 'you village chiefs' [VYky]
- (12) *Kosoyu* *mananwir* *kovanskoine*
 ko-so=U mananwir ko-v=an-sko-i-ne
 1PL.INC- village.ch 1PL.INC=POS-GIV-3PC-SPC–this
 accompany=U ief
- fararyor* *skovena.*
 fararyor sko-ve-na
 invitation 3PC-POS-3PL.INAN.SPC
 'We follow our three village chiefs' invitation(s).' [VYjr]

The corpus contains only one example of a noun phrase ending in a 2SG pronominal pronoun, part of the Manarmaker story, where a group of children mocks the old man Manarmaker addressing him as 'you who hold a stick':

- (13) *ro* *eser* *ankyón* *awi*
 ro e-ser ankyón aw-i
 thing REL-hold stick 2SG-SPC
 'you (thing) who hold a stick' [MSeg]

5.2.2 The function of specific and nonspecific markers

To account for the use of specific markers in Biak, the following rule of thumb can be posited: specific markers are used when the speaker has a particular entity in mind, whereas nonspecific markers are used when any entity answering the defining criteria will do. Following Himmelmann (1997:101), I think specificity can be defined as 'in principle identifiable (*prinzipiell identifizierbar*)'; the speaker could, given the perspective of the story, as it were point to the entity marked as specific and tell his hearer that this is the entity or group of entities he is referring to. In the Biak language, identifiability implies that an entity is 'finished' and 'well-bound'. As long as it is still in the process of being produced, it cannot combine with a marker of specificity. Compare the following examples:

- (14) *Yafúr* *teyo* *fa* *kuyinem*
 ya-fúr te=yo fa kuy-inm
 1sg-make tea=nonSP.SG CONS 1DU.INC-drink
 'I am making tea for us so that we two can drink' [notebook]
- (15) *Yafúr* *teya* *fa* *kuyinem*
 ya-fúr te=ya fa kuy-inm
 1SG-make tea=3SG.SPC CONS 1DU.INC-drink
 'I (had) made tea so that we could drink' [el]

As can be seen from the translations, the nonspecific marker in (14) was used in a situation in which the tea was not ready yet. The use of the specific marker in (15), on the other hand, presupposes that the tea existed or still exists. In the case of (15), the tea *exists* (or existed) as a well-defined specific entity, while this is not the case in (14). The SPC-marker, then, could

also be called a marker of *existence*, expressing that an entity 'really exists' within the world of discourse.⁶ The nonspecific marker, on the other hand, is used when the entity in question does not exist as an identifiable or 'demonstrable' entity in the world of discourse.

Although I have tried to use elicitation techniques to get a better grasp of the use of specific and nonspecific markers, this appeared to be very tricky. I think this is because it is very difficult to find situations that *logically exclude* the use of either specific or nonspecific morphology. The use of the markers is always co-determined by the pragmatics of the situation, by the perspective from which the speaker views the entities in question, from his presuppositions about the addressee's knowledge about the entity etc. Especially in this complicated area of pragmatic presuppositions and pragmatically guided uses, the use of Indonesian as an intermediary language made it impossible to obtain reliable data from elicitation.

This chapter, then, is largely based on non-elicited data, and gives a survey of the contexts in which nonspecific and specific markers were attested. Elicited examples are used occasionally to illustrate minimal contrasts. While this section focuses on nonspecific markers, occasionally contrasting them with specific markers, section 5.3 gives a more detailed discussion of specific markers.

Given a noun phrase X, nonspecific markers are predominantly attested in the following cases.

- 1) Nonspecific markers are used in case an entity of the sort X does *not yet* exist as an identifiable entity in the world of discourse.
- 2) Nonspecific markers are used in case it is *questioned* or *doubted* whether there exists any entity of the type X in the world of discourse.
- 3) Nonspecific markers are used when the existence of an entity of the type X is *negated*.

Like the examples (14) and (15) above, the following sentences are illustrations of the first of the above mentioned contexts. Compare the following two examples, the first of which is taken from a conversation that took place while the lime used for eating betelnuts was going round. At the moment of speaking, it is clear that the lime is existent in the world of discourse, which accounts for the use of the specific marker =*ya* '3SG.SPC':

(16) *Be* *afrya* *ma* *yakan.*
 be afr=*ya* ma ya-k-an
 2SG.give lime=3SG.SPC to.here 1SG-use-eat
 'Give me the lime so that I can use it to eat (betelnuts).' [YWeq]

The example above can be compared to the following example, taken from elicitation:

⁶ In this respect, it should be noted that the specific markers are also used as part of the indefinite pronouns, described in section 3.2.3. An example of the use of the indefinite pronoun is the following (cf. example 24 in section 3.2.3): *saro=ya d-orn si=ya, si=ya sinm* 'whale=3SG.SPC 3SG-swallow 3PL.AN=SPC, 3PL.AN=SPC 3PL.AN-drink' -> 'The whale ate some, others drank (until they drowned)'. In a case like this, it is questionable whether the speaker actually has a specific entity in mind. The crucial point, however, is that given the perspective of the story, these entities *exist* as *principally* identifiable entities; they could be identified, because they 'really exist' in the world of discourse.

- (17) *Be afro ma yakan.*
 be afr=o ma ya-k-an
 2SG.give lime=nonSP.SG to.here 1SG-use-eat
 'Give me (a bag etc. of) lime so that I can use it to eat (betelnuts).' [el]⁷

In case of example (17), the use of nonspecific =o expresses that the *afr* 'lime' is not (yet) identifiable.

The following 'adhortative' is again taken from spontaneous discourse. The nonspecific marker indicates that the speaker does not have a specific person in mind to cut sago and to be photographed:

- (18) *Esero kyar monda fa vyefoto.*
 eser=o k<y>ar monda fa v<y>e-foto
 one=nonSP.SG <3SG>fell just CONS <3SG>VBLZ-photograph
 'Let one cut (sago) so that he (another) can take a photograph.' [ASci]

The following examples illustrate the use of the nonspecific marker in conditional sentences. These sentences can be seen as illustration of the **second use**, in which the existence of entities is questioned or doubted. Again, the entities marked with nonspecific markers do not exist as entities identifiable to the speaker:

- (19) *Foro isya*
 for=o is-ya
 fire=nonSP.SG 3SG.PRED-that
- be ma yakpam ari.*
 be ma ya-k-pam ari
 2SG.give to.here 1SG-use-light first
 'If there is fire, give me some so that I can use it to light (my cigarette) first.'
 [GBel]

- (20) *Voi kerno naisya kada,*
 voi ker=no na-is-ya kada
 but part=nonSP.nonSG 3PL.INAN-PRED-that suppose.that
- vyefoto skakarya (...)*
 v<y>e-foto s-ka~kar=ya
 <3SG>VBLZ-photograph 3PL.AN-RED~hammer=3SG.SPC
 'When there is some (sago pulp), let him take a photograph of them hammering sago (...)' [AScq]

Note, however, that a conditional context does not automatically imply the use of an indefinite marker. Even when talking about the future, an entity can be conceived of as existing in the world of discourse. This is because this existence is always related to the tense locus (cf. Sandra Chung and Alan Timberlake: 1985, 203). The question is whether the entity is conceived of as existent at the moment referred to by the tense locus. Compare the

⁷ As set out in 3.3.3.2, the use of the singular instead of the plural expresses that the *afr* 'lime' is thought of as being contained. While this opposition has been tested for specific markers, the hypothesis that this opposition also holds for non-specific marker awaits confirmation from further research.

following examples, which are all part of the story of three men, rowing and talking about a pig that one of them says he has seen on an island. One of the men has just said that he would have shot it if he had a gun. One of the other two answers:

- (21) *Irya* *ido,* *randip* *ri* *pamya* *ido,*
 i-rya ido randip ri pam=ya ido
 3SG.PRED-ANAPH THEM pig COP 2SG.shoot=3SG.SPC THEM
- na* *yason* *duro* *ma* *yakkundur*
 na ya-son dur=o ma ya-k-kun-dur
 then 1SG-boil boiled.water=nonSP.SG and 1SG-use-burn-boiled.water
- i.*
i
 3SG
 'Okay (lit. given that it is this), given that (*or*: when) you have shot a pig, I will boil water and use it to pour hot water over him.' [SKbi]

In the sentence above, the tense locus is given by *ido* 'THEM' (cf. section 3.8 and 10.6.1), often translatable with 'when'. With respect to the tense locus given by *ido*, a specific pig has been shot, expressed by the noun phrase *pamya* 'the thing you shot' (, which has the structure of a relative clause, cf. 10.3.2 and 10.3.5). At the moment given by the tense locus, the speaker is in the process of making hot water. The *dur* 'hot water' does not yet exist, however, which accounts for the use of the nonspecific marker. When the speaker of (21) above has finished talking, the third reacts:

- (22) *Imbo,* *insandya* *pyam* *bós* *i* *kwar,* *wason*
 imbo insandya p<y>am bós i kwar wa-son
 indeed just <3SG>shoot totally 3SG already 2SG-boil
- durya* *fa* *bukkundur* *i* *ido,*
 dur=ya fa buk-kundur i ido
 boiled.water=3SG.SPC CONS 2SG.give-pour.hot.water.on 3SG THEM
- na* *oso* *ipref* *i* *va* *voi,* *aya*
 na oso i-pref i va voi aya
 then INDEF.SG 3SG-scrape.off 3SG not but 1SG
- na* *ekaw* *epref* *inya* *i*
 na e-kaw e-pref i=n=ya i
 then REL-make.clean REL-scrape.off 3SG=SEP=3SG.SPC FOC
 'Well, he has just shot (lit. pulled) it (the pig), so when you have cooked (the) water to pour out over him, then no one will scrape it off, but I will then be the one who cleans and scrapes it off.' [SKbm]

Again, the tense locus is provided by *ido*. The speaker imagines the moment at which the second man has already boiled the water and takes this as a tense locus. With respect to the tense locus, then, the water exists as an identifiable entity, which accounts for the use of the specific marker *ya* '3SG.SPC'.

A final example of a context questioning the existence of an entity is the following. It is cited as a famous prayer by the first missionary Ottow, who asks the Lord hopefully whether there will be any Papuan child when he comes into heaven.

- (23) *Manseren, na da yaroro nanki yamar ido*
 Manseren na da ya-ro-ro nanki ya-mar ido
 Lord then perhaps 1SG-LOC heaven 1.sg-die THEM
- yasrow romawa Papua esero ke?*
 ya-srow romawa Papua oser=o ke
 1SG-meet child Papua one=nonSP.SG DOUBT
 'Lord, perhaps when I come into heaven, shall I maybe meet a Papuan?' [YRcw]

As stated above, a third context requiring the use of a nonspecific marker is negation of the existence of an entity. The following sentences are illustrations of this use.

- (24) *Kosmai roino fa kán va.*
 ko-smai roi=no fa k^h-an va
 1PL.INC-get thing=nonSP.nonSG CONS 1PL.INC-eat not
 'We do not have anything to eat.' [PDcj]

- (25) *Indya inkona roveano va ido,*
 indya inko-na rovean=o va ido
 so 1.PL.INC have food=nonSP.SG not THEM
- na nkokar baryam annane (...)*
 na nko-kar baryam an-na-ne
 then 1PL.EX-cut sago.tree GIV-3PL.INAN.SPC-this
 'So when we have no food, we cut this sago (...)' [SScc]

In (26) below, the narrator expresses that there was not any man (*snon*) with whom the girl has slept. It is the non-existence of this man which accounts for the use of =o 'nonSP.SG'.

- (26) *Isnefr snono va vo,*
 i-snefr snon=o va vo
 3SG-sleep.with male=nonSP.SG not SIM
- sneri iba ri.*
 sne-ri i-ba ri
 belly-RI.pos 3SG-big ANAPH⁸
 'Although she had not slept with a man, she was pregnant.' [MMhn]

Another example of nonspecific markers in negative contexts is the following:

- (27) *Ropumfaio na isápi ro srai*
 ropum-fai=o na i-sápi ro srai
 betelnut-new.branch=nonSP.SG then 3SG-fall LOC coconut

⁸ Occasionally, we find the marker *ri* in clause-final position. This *ri* is probably (related to) the anaphoric *ri* found in nominal clauses, cf. 8.5.5.4. Its function, however, awaits further investigation.

- (32) (...)*insandya románo smunpáme (...)*
 insandya romá=no s-mun-pám
 just child=nonSP.nonSG 3PL.AN-hit-net
 '(...) a while ago some children were fishing with nets (...)' [WSbp]

An example of the use of a nonspecific marker when the speaker is not sure about the precise identity ('quality') of the entity referred to is given with *royo* in the following example. The sentence was given as the description of a photograph that showed a scene from a film that the speaker had been watching a minute before.⁹

- (33) *Insandya suminya isu royo*
 insandya su-min=ya i-su ro=yo
 just 3DU-member=3SG.SPC 3SG-stick.out thing=nonSP.SG

ve suminya (...)
 ve su-min=ya
 to 3DU-member=3SG.SPC
 'A while ago one of two wanted to give something (I do not know what) to the other'
 [S_T_169]

To close, the corpus contains a few examples of a repeated noun plus clitic =*o*, as in the following sentence:

- (34) *Ero supo supo káme*
 e-ro sup=o sup=o kam
 REL-LOC land=nonSP.SG land=nonSP.SG all

sra ma skón ro mnu ine.
 sra ma s-kón ro mnu i-ne
 3PL.AN-go to.here 3PL.AN-sit LOC village 3SG.SPC-this
 'Those from all those different places they came here and settled in this village.'
 [KGcb]

Here, the nonspecific marker does not refer to one specific land, but is used to stress that people came from *whatever* place. Although this use cannot be subsumed under one of the

⁹ I had no opportunity to check a minimal pair in the field, but asked for the difference by e-mail. I presented my language helper Chris Padwa with (33) above (without *insandya*, however) and the following example, and asked him whether there is any difference between the two:

	su-min-ya	i-su	ro-ya	ve	suminya
	3DU-member-3SG.SPC	3SG-stick.out	thing-3SG.SPC	to	3DU-member-3SG.SPC

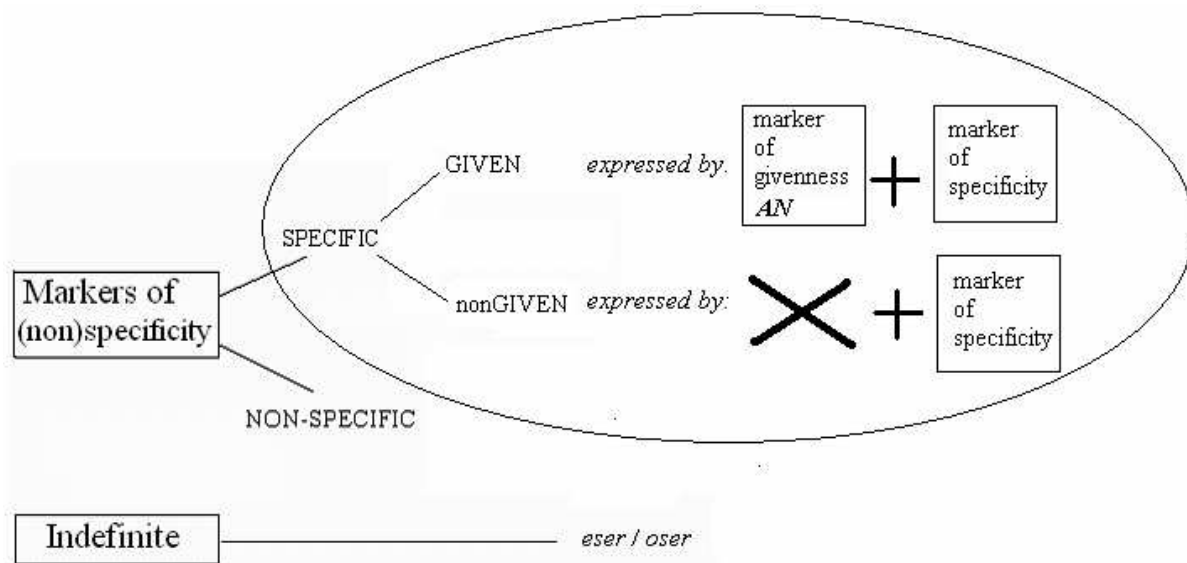
His answer: 'in the case of (33) the thing given is not yet known, whereas in the case of *roya* it is known already.' His answer can indirectly be seen as a confirmation of what I stated above. From the rest of this section it is clear that the use of =*ya* is not restricted to definite contexts, so it would be wrong to conclude from his answers that we have to do with a definite-indefinite distinction. I interpret his answer as follows. The use of *o* indicated that the precise identity of the thing is not known to the speaker. The use of *ya*, on the other hand, implies that the speaker knows what kind of thing he is talking about. As stated above, this is not to say that *ya* is a marker of definiteness. Definiteness is primarily concerned with the supposed state of knowledge of the addressee, i.e. with the question whether the speaker supposes the addressee to know about the entity in question (Cf. Dik 1997: 183f). The choice for specific *ya* or nonspecific *o*, however, has nothing to do with the supposed state of knowledge the addressee, but only with the state of knowledge of the speaker.

three contexts given at the outset, it is clear that the nonspecific-markers in the examples above do not refer to specific 'demonstrable' countries.

5.3 Specificity and givenness

The preceding section focused on the function of nonspecific markers, and paid attention to specific markers only in order to show the contrast with nonspecific markers. This section further goes into the contexts in which the specificity markers are used. As can be seen in the following figure, specificity markers may or may not combine with a marker of givenness *an*:

Figure 2 Specificity markers combining or not combining with marker of givenness



The marker of givenness *an* (or its phonological variant *nan* used after vowels), then, can only be used in combination with a specificity marker, as is clear from the following example:

- (35) *Rofan an*(ya) romámkun an*(ya) suyenef.*
 rofan an-ya romá-mkun an-ya suy-enf
 dog GIV(-3SG.SPC) child-little GIV-3SG.SPC 3DU-sleep
 'The dog and the child they slept.' [FAae]

As the function of the specificity marker can only be accounted for in relation to the function of *an*, the following section first describes the function of this *an* as 'marker of givenness'. Section 5.3.2 will then return to those contexts where specificity markers are used without *an*.

5.3.1 An as a marker of givenness

In this section I will defend the hypothesis that an NP is marked with *an* to express the speaker's assumption that the addressee can identify or knows about the referent of the NP because

- (a) the referent has been referred to in the preceding context,
- (b) the referent is already known to the addressee from other than the immediate given context at the moment of speaking.

I will first give illustrations from narrative discourse, where *an* is typically used when a referent has been referred to before. Then I will give some illustrations from daily conversation, where I will show that presence of an entity in the immediate context is by no means sufficient to mark an NP referring to this entity with *an*.

For an illustration of the use of *an* in narratives consider (36) through (39) below. These sentences form the beginning of a narrative about a couple, a child and a dog. After a participant has been introduced into the discourse, next references to the participant are made by noun phrases marked with *an*. The noun phrases with *an* 'GIV' are in bold italics, while the other noun phrases have an underscore:

- (36) a *Randak* *i-wara* *ee,* *imbiswa* *suya.*
 randak i-wa-ra ee in-ve-swa su-ya
 begin 3SG.SPC-over.there-to.o.there eh female-LNK-spouse 3DU=SPC
 'A time ago, (there were) a wife and a husband.' [HKaa]
- b *Imbiswa* *suya* *sufarvuk*
 in-ve-swa su-ya su-farvuk
 female-LNK-spouse DU=SPC 3DU-marry
- vo* *suna* *romámkun* *eser.*
 vo su-na romá-mkun eser
 SIM 3DU-have child-little one
- suna* *kapiramkun* *eser.*
 su-na kapiramkun eser
 3DU-have baby-little one
- voi* *imbiswa* *suine.*
 voi in-ve-swa su-i-ne
 but female-LNK-spouse 3DU-SPC-this
- fararúr* *suvedya* *sufararúr* *ro* *yáfe* (...)
 f~ara~rúr su-ve=d-ya su-f~ara~rúr ro yáf
 ~RED~make 3DU-POS=3SG-SPC 3DU~RED~make LOC garden
 'A wife and husband were married and had one child, the two had one baby, and this wife and husband, the work of the two was to work in the garden.' [HKab]
- (37) *Indya* *na* *ive* *sura* *ve* *yáf* *ido*
 indya na i-ve su-ra ve yáf ido
 so then 3SG-want 3DU-go to garden THEM
- vo* *imbiswa* *nansuine* *sufan* *rofan* *eser.*
 vo in-ve-swa an-su-i-ne su-fan rofan eser
 SIM female-LNK-spouse GIV-DU-SPC-this 3DU-feed dog one
 'So whenever they wanted to go to the garden – the wife and husband took care of a dog.' [HKae]

(38) *Sufanu* *rofanya* *indya,*
 su-fan=u rofan=ya indya
 3DU-feed=U dog=3SG.SPC so

na *sura* *ve* *yáf* *ido,*
 na su-ra ve yáf ido
 then 3DU-go to garden THEM

rofan *anine* *vyark* *ro* *rum.*
 rofan an-i-ne v<y>ark ro rum
 dog GIV-3SG.SPC-this <3SG>lie LOC house

'The two took care of a dog so whenever the two went to the garden, this dog stayed at home.' [HKaf]

(39) *Vyark* *fa* *myám* *wark* *romámkun* *ani,*
 v<y>ark fa m<y>ám wark romá-mkun an-i
 <3SG>lie CONS <3SG>see guard child-little GIV-3SG.SPC

imbeswa *nansuine* *kapira-mkun* *suvani.*
 in-ve-swa an-su-i-ne kapira-mkun su-v=an-i
 female-LNK-spouse GIV-3DU-SPC-this baby-little 3DU-POS=GIV-3SG.SPC

'He stayed to guard and watch the little child, the couple's little baby.' [HKah]

In the story above, none of the three relevant participants (*imbeswa* 'wife with husband', *rofan* 'dog', *romámkun* 'child') is directly introduced with *an*, as none of them is known to the addressees yet. They are introduced by means of the specific marker (*suya* in (36) a and b or the indefinite marker (*eser*)), and it is only later on in the story that they are presented as given. In (39), finally, all of the relevant participants are explicitly marked as given, as they are all known to the addressees.

In what follows now, some examples will be presented that are taken from daily conversation. These examples illustrate how *an* indicates that the entity in question is known to the addressee from other than the immediate given situation. That the presence of an entity in the immediate situation is no (or insufficient) reason to mark an entity with *an* is very clear from the fact that it is not used for deictic expressions, except when these entities were already known to the addressee. Consider the following noun phrases, both containing the demonstrative formative *ne*, one of them combining with the marker of givenness *an*:

(40) a **buku** *ine* b **buku** *nanine*
 buku i-ne buku an-i-ne
 book 3SG.SPC-this book GIV-3SG.SPC-this
 'this book' ' this book (you know about)'

A speaker will refer to a book in his immediate environment by (40) a: *buku ine* 'this book', even when the addressee has been watching this book for a while and is aware of its existence. In the situation given above, the speaker could use the b-variant *buku anine* 'book GIV-3SG.SPC-this', but only in case the two have just been talking about the book, or to express that this book is somehow known to the addressee from before.¹⁰

¹⁰ As will be clear from Chapter 9, I have done a lot of research on deixis. In immediate deixis *an* was never used, unless to add some extra meaning.

Some illustrations of the use of *an* in conversation are the following. In (41) one person in a group starts to tell about one day, some time ago, when she and many others had gone to visit Mansinam (to commemorate the coming of the Gospel to New Guinea in 1855). As she expects her addressees to know what day she is talking about, she uses *an* (as for the precise syntactic structure of the expression, see 10.6.4):

- (41) *Ne, ras epondya [inkora mura*
 ne ras e-pon=dya inko-ra mu-ra
 hey day REL-front=ANAPH 1PL.EX-go PATH-to.o.there

nani]NP (...)

an-i

GIV-3SG.SPC

'Hey, a day some time ago, the day (about which you know) when we went away (...)'
 [YWbl]

In the following sentence, another speaker wants to use the words from a song (not mentioned before) to support his argument. The use of *an* betrays that he supposes the addressees to know this song:

- (42) **Lagu** *nanya* *dóve:*
 lagu an-ya d-óve
 song GIV-3SG.SPC 3SG-say
 'The song says:' [YWds]

Another example is from someone telling about a collage, left by Talitha as a gift to Sahulata. The speaker talks about this collage as *foto fyas ve i anna* 'the photographs that she wrote to her' and repeats the reference as *vyein gambar ro anya* 'that (collage) on which she made drawings'. Again, the use of *an* makes clear that the speaker expects her addressees to know what she is talking about.

- (43) *Sahulata ima rya ma*
 Sahulata i=ma r<y>a ma
 Sahulata 3SG=FOC <3SG>go to.here

vo Talithaya [foto fyas ve i
 vo Talitha=ya foto f<y>as ve i
 SIM Talitha=3SG.SPC photograph fas-3SG- to 3SG

nanna]NP, *ero... vyein gambar ro nanya,*
 an=na e-ro v<y>ein gambar ro an-ya
 GIV-3PL.INAN.SPC REL-LOC <3SG>make drawing LOC GIV-3SG.SPC

dún *na* *ra* (...)
 d-ún na ra
 3SG-take 3PL.INAN to.o.there

'Sahulata, she came here, and there's that one from Talitha, the photographs that she had made and left (lit. written) for her, which are at.... the thing on which she made drawings, she took them away (to another village, where S. lives) (...)' [YWaa]

In possessive pronominals, *an* refers to permanent possession, as opposed to temporary possession. Thus, *gelas b-an-ya* 'glass 2SG.POS-GIV-3SG.SPC' would be used to refer to a glass possessed by the addressee, while *gelas be=d-ya* 'glass 2SG.POS=3SG-SPC' would refer to a glass that is used by the addressee but not possessed by him.

As for the use of *an* in narrative discourse, it is of course possible to use *an* when introducing an entity, if the speaker assumes the addressee already knows this entity. The use of *an* when introducing entities is rare, but attested occasionally, as in the following two sentences. It is a story about a heron bird, and describes the situation that makes him long for a journey to *sup amber*. The passage describes a 'romantic' and well-known scene to the Biak people: it is *der wampasi* the 'quiet season' (as described earlier in the passage). The Eastern wind - which often blows during this season - is blowing and the sea is very quiet. The use of *an*, then, explicitly marks these concepts as known to the speaker, and may have the rhetoric function of making the scene sound familiar.¹¹ All who listen to the story really know that this is the time for dreaming away and thinking about journeys to *sup amber*, the 'foreign country', as the story describes in the sentence directly following (45), not presented here.

(44) *Imbarya* *mansórom* *anya* *irov* *ma*,
 imbarya *man-sórom* *an-ya* *i-rov* *ma*
 therefore bird-heron GIV-3SG.SPC 3SG-fly to.here

irwai *rar-vav* *vo* *kyain* *ro* *karui*
 i-rwai rar-vav vo k<y>ain ro karui
 3SG-land to.o.there-down SIM <3SG>sit LOC stone

orovaido *wononya* *bori*.
 orovaido wonon=ya bo-ri
 or <k.o.coral.stone>=3SG.SPC upside-POS.SG

'So the heron flew close, he landed and sat down on a stone or coral stone'. [CPac]

(45) *Kyain* *vo*, *wammurm* *anya* *iwuf* *pararei*,
 k<y>ain vo wammurm an-ya i-wuf p~ara~rei
 <3SG>sit SIM wind- east GIV-3SG.SPC 3SG-blow ~RED~healthy

swan *anya* *bori* *ino* *ivrin*,
 swan an-ya bo-ri i=no i-vrin
 sea GIV-3SG.SPC upside -POS.SG 3SG=also 3SG-quiet

¹¹ Although it is true that the concepts marked with *an* refer to globally accessible objects, global accessibility as such is insufficient reason to mark a noun as given, as is illustrated in (51) through (54) below. This suggests that the use of *an* has a function that goes beyond the marking of this accessibility.

<i>mura</i>	<i>ido</i>	<i>myander</i>	<i>vo</i>	<i>dóve:</i>
mura	ido	m<y>ander	vo	d-óve
afterwards	THEM	<3SG>long.for	SIM	3SG-say

'He sat while the wind from the East was blowing gently, the sea surface it was also quiet, so he said longfully:' [CPaf]

5.3.2 Specificity markers without *an*, indicating existence in the world of discourse

From the discussion in 5.2.2 on the contrast between nonspecific and specific markers, it has become clear that specific markers are used when the entity referred to exists in the world of discourse as an entity identifiable for the speaker.¹² In Figure 2 above, it was shown that specific markers may or may not combine with a marker of givenness *an*, whose function was discussed in the preceding section. Contrasting the non-use of *an* to the use of *an* given above, the use of the specificity marker without *an* often implies that the referent is not known to the addressee, neither on the basis of the preceding context, nor from previous knowledge.

In narrative discourse, the use of the specific marker *per se* is one of the usual ways to introduce an entity into discourse (apart from *eser*). Consider the following passage, telling how Manarmaker reaches a cave with a snake lying in front of it.

(46) *Rao: syun ro avyavi.*
 rao s<y>un ro avyav=i
 until <3SG>enter LOC cave=3SG.SPC
 'Until ... he came at a cave.' [MMba]

(47) *Avyavya¹³ (...) avyav anine snori Ambarai,*
 avyav=ya avyav an-i-ne sno-ri Ambarai
 cave=3SG.SPC cave GIV-3SG.SPC-this name-POS. SG Ambarai

ryo mnu Adadikam vande.
 r<y>o mnu Adadikam van-re
 <3SG>LOC village Adadikam side -land
 'A cave ... this cave its name was Ambarai, it is at the land-side of (the village) Adadikam.' [MMbc]

(48) *Fama ikákya, vyark wark i.*
 fama ikák=ya v<y>ark wark i
 however snake=3SG.SPC <3SG>ly block 3SG
 'But (there was) a snake, lying and blocking it.' [MMbf]

Turning now to conversation, reference to entities in the immediate environment is most frequently made by the use of demonstrative, directional and motional deictic elements, which

¹² In earlier versions of this thesis I referred to the specificity marker as a marker of existence, glossing it with EXS instead of SPC, which I still consider a defensible choice. There are some problems with this analysis, however, when one would try to hold to a strict contrast with nonspecific markers, which would then have to be considered as markers of non-Existence.

¹³ It is also possible to interpret this =*ya* as a filler, often used by this person when taking a pause before telling further

can only be used in combination with a marker of specificity. Thus, while (49)a is grammatical, (49)b is not.

- | | | | | | | |
|---------|--------------|--------------|--|-----|--------------|-----------|
| (49)a | <i>rofan</i> | <i>ine</i> | | b * | <i>rofan</i> | <i>ne</i> |
| | rofan | i-ne | | | rofan | ne |
| | dog | 3SG.SPC-this | | | dog | this |
| | 'this dog' | [HKao] | | | *'this dog' | [el] |

Whereas the use of demonstratives and directionals (as part of complex articles) for reference to the immediate environment is frequent, the corpus offers a number of examples where the specific marker is used by itself. One of these examples is (16) above, repeated as (50) below.

- | | | | | |
|--------|--------------------------------------------------------------------|--------------|-----------|---------------|
| (50) | <i>Be</i> | <i>afrya</i> | <i>ma</i> | <i>yakan.</i> |
| | be | afr=ya | ma | ya-k-an |
| | 2SG.give | lime=3SG.SPC | to.here | 1SG-use-eat |
| | 'Give me the lime so that I can use it to eat (betelnuts).' [YWeq] | | | |

This section closes with a number of further illustrations of the use of the specificity marker *sec*. Although the non-use of *an* often implies that the speaker supposes the addressee not to know about the entity in question, this is not necessarily the case. The non-use of *an* strictly spoken only expresses that it is not necessary to mark the entity as known to the speaker. Concepts that are generally known and therefore uniquely identifiable or 'globally accessible' (cf. Givón 2001: 461), then, are usually not marked with *an*, as is clear from the following examples:

- | | | | |
|--------|-----------------------------------------|---------------|--------------|
| (51) | <i>Orya</i> | <i>ikren.</i> | |
| | or=ya | i-kren | |
| | sun=3SG.SPC | 3SG-aslant | |
| | 'The sun was close to setting.' [MSjx] | | |
| | | | |
| (52) | <i>Swanya</i> | <i>ivrin.</i> | |
| | swan=ya | i-vrin | |
| | sea=3SG.SPC | 3SG-quiet | |
| | 'The sea was quiet' [MSjc] | | |
| | | | |
| (53) | <i>Mekmya</i> | <i>imyun.</i> | |
| | mekm=ya | i-myun | |
| | rain=3SG.SPC | 3SG-rain | |
| | 'It rained.' [Mbay] | | |
| | | | |
| (54) | <i>Ruvya</i> | <i>rya</i> | <i>mre.</i> |
| | ruv=ya | r<y>a | m-re |
| | flood=3SG.SPC | <3SG>go | to.here-land |
| | 'The flood is coming landwards.' [YWbp] | | |

In the final example, *ani* is a modifier of *rupa* 'manner'. The speaker refers to the way in which the moon makes a circle on the area around the houses. The speaker uses *an* to express that this phenomena is known to the addressee.

- (55) **rupa** *ra* **paikya** *indo* *iyar* *buvs* **ani.**
 rupa ra paik=ya indo i-yar buvs an-i
 way like moon=3SG.SPC as.to 3SG-(go).round buvs GIV-3SG.SPC
 'in the way in which (as you know) the moon makes a circle on the *buvs*.'¹⁴ [YMcy]

5.3.3 Specific markers as generalizing over definite and indefinite contexts

According to Himmelmann, it is typical for specific markers to be used in both definite and indefinite contexts (Himmelmann 1997:103). The many examples of the use of specific markers in the preceding sections have shown that this is also true in the Biak language. On the one hand, specificity markers are used in typically indefinite contexts, like the introduction of an entity in discourse, illustrated in (46) through (48). On the other hand, they are used in typically definite contexts. This is not only true for specific markers combining with the marker of givenness *an* or with other deictic elements, but also for the use of the specificity marker *per se*. Thus, it is used for reference to uniquely identifiable objects like the moon in (55) or the sun in (51), or for reference to entities that are generally uniquely identifiable given the context of the utterance, like *afr=ya* 'lime=3SG.SPC' in (50) above. Summarizing, the broad possibilities of the specific markers on the one hand, and the impossibility to use it for unidentifiable entities on the other hand, justify the choice to analyze the markers as markers of specificity.

5.4 Nouns without articles

This chapter so far has discussed noun phrases that are marked for specificity or nonspecificity, as well as noun phrases marked as 'given' or known to the addressee. So far, then, the discussion was restricted to noun phrases closed off by pronominal articles indicating one of the just mentioned functions. This section discusses some of the cases in which nouns are not followed by an article, as in the following two examples:

- (56) *Sikun* *na* *kukru* **for.**
 si-kun na kukr=u for
 3PL.AN-burn 3PL.INAN with=U fire
 'They burn them with fire.' [ATap]

- (57) **Wus** *dóve,* *ikofn* **mankampinarar** *vo* *dóve:*
 wus d-óve i-kofn mankampinarar vo d-óve
 <k.o.fish> 3SG-say 3SG-say <k.o.fish> SIM 3SG-say
 'The *wus*-fish said, he said to the *mankampinarar*-fish:' [MWag]

Similarly to what Greenberg (1981:106, cited in Himmelmann 1997:103) has described for noun phrases lacking the specific article, the article-less cases fall into two classes, deriving from two ends of the determination spectrum. On the one hand, noun phrases may lack the article because they are automatically definite (and specific). On the other hand, they are attested (Greenberg: 'survive') in various generic uses.

Examples of automatically definite noun phrases lacking the article are proper nouns, discussed in 3.3.3.1 and locational nouns or nouns referring to parts of wholes, described in

¹⁴ *Buvs* is the name used for the place where a number of family houses were grouped together.

section 6.2.3. The corpus contains a few short narratives in which the names for animals are marked as if they were proper nouns.¹⁵ An illustrative passage is the following:

- (58) **Mankapinarar** *kyain* *ro* *waiya* *rawndi*,
 mankapinarar k<y>ain ro wai=ya rawn-ri
 <k.o.fish> <3SG>sit LOC canoe=3SG.SPC front.part-POS.SG

wus *kyain* *ro* *waiya* *wurndi*.
 wus k<y>ain ro wai=ya stern-ri
 <k.o.fish> <3SG>sit LOC canoe=3SG.SPC stern-POS.SG

'(The) *mankapinarar*-fish sat in the canoe's front, while (the) *wus*-fish sat in the back.'
 [MWac]

- (59) *Suraswan* *rao*, *subisr* *mura*,
 su-ra-swan rao su-bisr mura
 3DU-go-sea until 3DU-hungry afterwards

mankapinarar *ikofn* **wusi** *vo* *dóve*:
 mankapinarar i-kofn wus=i vo d-óve
 <k.o.fish> 3SG-say <k.o.fish>=3SG SIM 3SG-say

'The two went out fishing, till they got hungry, and the *mankapinarar* said to the *wus*:' [MWad]

Like proper nouns, the noun phrases in bold do not combine with an article when used in subject position, but may combine with a 3SG pronoun *i* in other positions. Note that the *i* in *wus=i* in (59) is not an article, because the article would have the non-prepausal form =*ya* instead of =*i*.

Examples of generic noun phrases, on the other hand, are the following.

- (60) *Dár* *ve* **randip** *va* *voi*, *dár* *ve* **snonkaku**
 d-ár ve randip va voi d-ár ve snonkaku
 3SG-cry as pig not but 3SG-cry as human.being
 'It did not cry as a pig but as a human being.' [MMav]

- (61) *Inai* *suine* *sumám* *bir*
 inai su-i-ne su-mám bir
 young.woman 3DU-SPC-this 3DU-see recognize

romamkun *anine* *ve* **romawa**.
 roma-mkun an-in-e ve romawa
 child-little GIV-3SG.SPC-this as boy

'These two girls recognized the child as a boy.' [MScj]

The formative *ve* as used in the two examples above is closely related to the verbalizer *ve*. Compare (61) above to (62) below.

¹⁵ The corpus used for writing this thesis contains four narratives following the pattern described above, one of which can be found in the Appendix. The majority of texts, however, exhibit a different pattern, in which noun phrases are marked with *an* as soon as they have been introduced into the text. This pattern is illustrated in (46) through (48) above and illustrated in a number of texts in the appendix.

- (62) *Vyeromámkun* *kwar.*
 v<y>e-romá-mkun *kwar*
 <3SG>vblz-child-little *already*
 'He had become a child.' [IMaj]

As argued in the chapter on verbs, in (62) above the verbalizer *ve* forms a sort of compound with the verb. The relevant point for the analysis here is that the noun is not referring, but has become part of the verbal complex, which as a whole assigns a quality or property to the subject-referent of the verb (expressed by the infix <y>). Likewise, *ve randip* 'as a pig', *ve snonkaku* 'as a human' do not refer to existing entities of pigs and humans, but assign the property of 'being human', 'being pig' or 'being child', respectively to the subject of the verb *d-ár*. In (61) the property of 'being boy' is assigned to *roma-mkun* 'child-little'.

The following example is taken from an expository discourse, in which the speaker shows the addressee different objects, telling him about their function:

- (63) *Ine* *ido,*
 i-ne *ido*
 3SG.SPC-this *THEM*
- nkovuk* *i* *kyero* *dyapan.*
 nko-vuk *i* *k<y>er=o* *dyapan*
 1PL.EX- use 3SG <3SG>plant=O *taro*
 'As for this, we use it to plant taro.' [ATce]

In the example above, again, no reference is made to any existing *dyapan* 'taro', but simply to an activity of 'taro-planting'. There is an important difference between the use of a nonspecific marker and the non-use of an article, as illustrated in the following pair.

- (64) *Kyer* *dyapan* *va.*
 k<y>er *dyapan* *va*
 <3SG>plant *taro* *not*
 'He does not plant taro / he has not planted taro.' [e1]

- (65) *Kyer* *dyapanno* *va.*
 k<y>er *dyapan=no* *va*
 <3SG>plant *taro=nonSP.nonSG* *not*
 'He has not planted any taro, he does not plant any taro.' [e1]

The difference between the two examples lies in the fact that the first would be used to express that there is (or was, or has been) no such activity as 'taro-planting'. The second sentence, on the other hand, would be used to express the fact that someone has gone out or planned to go out planting, but that in the end he has not planted any taro (but maybe other things.)

Generic subjects may be expressed by a singular or plural and may or may not take a specific article, without any difference in meaning:

ro *dine*]_{VC}*nya*]_{NP} *suséwaru*
ro *di-ne=n=ya* *su-séwar=u*
 LOC place-this=SEP=3SG.SPC 3DU-seek=U

wós *kovanya*, *wós* *Vyak*, *wós* *kráf* *kaku*.
wós *ko-v=an-ya* *wós* *vyak* *wós* *kráf* *kaku*
 word 1PL.INC-POS=GIV-3SG.SPC word Biak word pure real
 'As for the coming here of these two foreigners, the two seek our language, the language Biak, the real pure language.' [ASaa]

(72) *Indya* [*suvark* *ro* *diwa*]_{VP}*nya*]_{NP}
 indya *su-vark* *ro* *di-wa=n=ya*
 so 3DU-live LOC place-over.there=SEP=3SG.SPC

aya *kukru* *mansaru* *Timo* *Yembise*
aya *kukr=u* *man-sar=u* *Timo* *Yembise*
 1SG with=U male-old=U Timo Yembise

nu *efnovk* *sunnu*
nu *e-fnovk* *su=n=nu*
 1.DU.EX REL-help 3DU=SEP=1DU.EX

'So given that the two live there (in Wardo), me and sir Timo Yembise we two are the ones who help the two.' [ASap]

The following is taken from the final part of a story, concluding what it is that causes "chickens' continual cackling":

(73) *Indya* *sór* *ker* *ine*,
 indya *s-ór* *ker* *i-ne*
 so 3PL.AN-call continually 3SG.SPC-this

sór *séwar* *ikák* *anine* *sa* *isamberen*.
s-ór *séwar* *ikák* *an-i-ne* *sa* *i-sambern*
 3PL.AN-call seek snake GIV-3SG.SPC-this CONS 3SG-fast
 'So this calling of theirs, they search for this snake by calling him to be (i.e. to come) fast.' [MIcx]

While the illustrations given until now all end in specific markers, the marker =*o* found at the end of clauses can most probably also be analyzed as a nonspecific marker. The use of =*o* is widespread, and often simply is a filler when a speaker is looking for words. In some cases, however, it is semantically richer, and indicates a certain unboundedness of the event, as in the following example.

(74) *Mura* *ido* *mankoko* *nanya* *iwáf* *rao*,
 mura *ido* *man-koko* *an-ya* *i-wáf* *rao*
 afterwards THEM bird-chicken GIV-3SG.SPC 3SG-wait until

<i>arwo</i>	<i>nanya</i>	<i>rao</i>	<i>arkók</i>	<i>kwaro,</i>
arwo	an-ya	rao	arkók	kwar=o
morning	GIV-3SG.SPC	until	middle.of.day	already=nonSP.SG

<i>ikák</i>	<i>anine</i>	<i>kyavr</i>	<i>vanim.</i>
ikák	an-i-ne	k<y>avr	vanim
snake	GIV-3SG.SPC-this	<3SG>return	not.yet

'Therefore the chicken waited until ... the morning until it was already the middle of the day ... [but] this snake had not come back yet.' [Mlbn]

The use of =o shows that we have to do with an unbounded event, not having a definite ending; it says that the chicken waits and waits for an 'endless indefinite period'. A final example is given with the following sentence. It should be noted that *o* here takes the form *no*, which might be analyzed as the separator *n* that is also used to separate a relative clause and a following pronominal article, cf. 10.3.3. More research, however, is needed to confirm this hypothesis.¹⁶

(75) *Dors* *dór* *ino,*
 d-ors d-ór i=n=o
 3SG-stand 3SG-call 3SG=SEP=nonSP.SG

<i>mankroder</i>	<i>anine</i>	<i>kyarm</i>	<i>va.</i>
mankroder	an-i-ne	k<y>arm	va
frog	GIV-3SG.SPC-this	<3SG>answer	not

'No matter how long he called it, the frog did not answer.' [FPcs]

5.6 Noun phrase coordination

Noun phrase coordination in Biak can be either syndetic or asyndetic. This section first discusses syndetic coordination and closes with a discussion of asyndetic coordination. Conjunctions need not but may be separated by intonational pauses, where pausing seems to be more usual for asyndetic than for syndetic coordination. In syndetic coordination, if there is a pause, it is always situated directly after the conjunction.

For syndetic coordination the language uses one of the following conjunctions, which will be discussed one by one: *kukr* 'with', *ma* 'and', and *warpu* 'together with'. The conjunction *kukr* 'with', which is related to the preposition *kukr* 'with', is exemplified in (76) and (77).

¹⁶ At date, the following data are available. After consonants, we only find =o. After noun-final vowels, we find either =o, or =yo, never =no (though this might be a gap in the data, so more research is necessary). In clause-final vowels like *i* above, on the other hand, we find =o, =yo but also =no. The rules for when to use =o~yo and when to use =no are still poorly understood, but might be similar for the rules determining the use of a separator after relative clauses, described in 10.3.3. Another possibility is to equate the formative =no under discussion here with the formative =no 'also' described at the outset of 5.2. This would raise the question whether it is also possible to equate =o as used in (74) with =no 'also'. This is not unthinkable, because it should be noted that NP-final =no 'also' cliticizes to the final position of the NP, and that this position is vowel-final in all of the attested cases. In other words, we might think of =o 'also' and =no 'also' as allomorphs, the latter being used exclusively after (certain?) vowels, the former obligatorily used in postconsonantal position.

- (76) *Yafáru* *mankokoya* *kukru* *ikák* *vebaya*.
ya-fár=u man-koko=ya kukr=u ikák ve-ba=ya
1SG-tell=U bird-chicken=3SG.SPC with=U snake REL-big=3SG.SPC
'I tell about a chicken with a big snake.' [MIaa]
- (77) *Indya* *mankroder* *anine* *kukru* *rofan* *anine*,
indya mankroder an-i-ne kukr=u rofan an-i-ne
so frog GIV-3SG.SPC-this with=U dog GIV-3SG.SPC-this
- suswaryáe* *su* (...)
su-swar-yáe su
3DU-love-each.other 3DU
'So this frog and this dog, the two loved each other (...)' [FYac]

As described in 10.7, the conjunction *kukr* is also used for the conjunction of clauses.¹⁷ This is also true for the conjunction *ma*, whose use as coordinator of noun phrases is exemplified in (78) below.

- (78) *Masn* *vero* *amnya* *ma* *sraibon* *anya*
masn ve-ro amn=ya ma srai-bon an-ya
salt.water REL-LOC bamboo=3SG.SPC and coconut-fruit GIV-3SG.SPC
- surok*.
su-rok
3DU-make.noise
'The salt water in the bamboo and the coconut made noise.' [OHac]

The conjunction *ma* is not only used for the conjunction of phrases, but also as a coordinator of words. As such, it can also conjoin two nouns within one and the same noun phrase, as in the following example:

- (79) *Nkovenadi* *wark* [*mamfamyán* *ma*
nko-ve-nadi wark man-famyán ma
1PL.EX-VBLZ-pray guard male-servant and
- imfamyán* *besi*]_{NP}.
in-famyán be=s-i
female-servant 2SG.POS=3PL.ANIM-SPC
'We pray for your male and female servants.' [GDbd]

In the example above, it is clear that the possessive pronominal article *besi* has scope over both *mamfamyán* 'male servant' and *imfamyán* 'female servant'; both nouns are part of the same NP and conjoined by the coordinator *ma* 'and'.

A final NP-conjunction is *warpu* 'together with', which is related to the verb *warpu* 'with'. The corpus contains no examples of this conjunction used for the coordination of clauses, but this might be an accidental gap. An example of its use is given in (80).

¹⁷ The related *inkukr(u)*, however, is used exclusively for clause-coordination.

- (80) *Indya romamkun anya warpu rofan*
 indya roma-mkun an-ya warpu rofan
 jadi boy-little GIV-3SG.SPC together.with dog
- vyanine suyenef.*
 v<y>-an-i-ne suy-enf
 <3SG>POS-GIV-3SG.SPC-this 3DU-sleep
 'So the little boy and his dog they slept.' [FPac]

Examples of *asyndetic coordination* are the following. Asyndetic coordination can be used for the conjoining of only two constituents, as in (81), but also for the coordination of more than two conjuncts, as in (82).

- (81) *Snari, meri sufúr pyano*
 sna-r=i me-r=i su-fár pyan=o
 mother-POS.3SG-3SG cross-uncle-POS.3SG=3SG 3DU-make help=O
- waidaryun mkuni.*
 wai-daryun mkun=i
 canoe-<k.o.canoe> little=3SG.SPC
 'His mother, his uncle, they helped him by making a little *daryun*-canoe.' [TWes]

- (82) *Rokakerna navesisyé.*
 ro-ka~ker=na na-vesisyé
 thing-RED~plant=3PL.INAN.SPC 3PL.INAN-different
- Indya ránsyo, ifen, dyapan,*
 indya ránsyo ifn dyapan
 so sweet.potato <k.o.tuber> taro
- ine ido inkór ve batawe.*
 i-ne ido ink^h-ór ve batawe
 3SG.SPC-this THEM 1PL.EX-call as cassava
 'The plants differ: so (we have seen) sweet potatoes, *ifn* tuber, taro, and this here we call cassava.' [ATal]

Sentence (83) below is an example where asyndetic and syndetic coordination are combined. It is part of a (rather slowly spoken) report by an adolescent telling how he and his colleague usually prepare for fishing after sea cucumbers:

- (83) *Kovyawno wáre, mani, warpu slan,*
 ko-vyawn=o wár mani warpu slan
 1PL.INC-load=O water mineral.oil together.with tube
- motor,** kún na randa (...)
 motor k^h-ún na ran-ra
 motor 1PL.INC-take 3PL.INAN to.o.there-sea
 'So we load water, oil, together with a tube, and a motor, we take (it all) seawards.' [ZKad]

Just as was shown to be the case for the conjunction *ma* above, asyndetic coordination can be used not only to conjoin (noun) phrases, but also for the conjunction of words. An example of the latter is given with (84) below, where the nouns *mamfamyān* 'male servant' and *imfamyān* 'female servant' are conjoined asyndetically. The phrase is parallel to the noun phrase in (79), the noun phrase again being closed off with a possessive pronominal article (*vyesya*).

- (84) *Manseren* *vyeberkat* [*mamfamyān*
 Manseren *v<y>e-berkat* *man-famyān*
 Lord *<3SG>VBLZ-bless* *male-servant*
- imfamyān* *vyesya*]_{NP} (...)
 in-famyān *v<y>e=s-ya*
 female-servant *<3SG>POS=3PL.AN-SPC*
 'May the Lord bless his male and female servants.' [YRfz]

6 POSSESSION

This chapter describes the morphological and syntactic means adopted to express the notion of possession, where the focus will be on attributive possession. Like a number of languages on the Bird's Head and in the Moluccas the language makes a formal distinction between alienable and inalienable possession (cf. Klamer, Reesink and Van Staden, t.a.). Inalienable possession is mainly restricted to some bodyparts, some kinship terms, and some locational nouns. Inalienable possession is illustrated in (1), while alienable possession is illustrated in (2)

(1) [Frans]_{NP} [kmari]_{NP}
Frans kma-r=i
Frans father-POS.3SG=3SG
POSSESSOR POSSESSUM
'Frans's father' [GBde]

(2) [vín anine]_{NP} [sinan vyesya]_{NP}
vín an-i-ne sinan v<y>e=s-ya
female GIV-3SG.SPC-this parent <3SG>POS=3PL.AN-SPC
POSSESSOR POSSESSUM POSS. PRONOMINAL
'this woman's parents' [ALau]

The examples above illustrate some important characteristics of the two constructions correlating with each type of possession. Inalienable possession is expressed by an affix on the possessum-noun *kma* 'father'. The affixes express person, number and gender of both the possessor and the possessum. A noun phrase referring to the possessor (*Frans* in the example above) may, but need not, precede the possessum-noun.

Alienable possession, on the other hand, is usually expressed by an inflected possessive *ve* following the possessum-noun. This formative is of verbal origin and agrees in person, number and gender with the possessor. It is usually directly followed by the pronominal article (=s-ya in example (2) above), expressing person, number and gender of the possessum-noun phrase. Here again, a noun phrase referring to the possessor may but need not precede the possessum-noun phrase, although the order possessum-possessor is also possible (cf. section 6.1).

The chapter is built up as follows. While section 6.1 deals with alienable possession, section 6.2 focuses on inalienable possession. In 6.2.1 through 6.2.3, bodypart nouns, kinship terms and locational nouns are dealt with successively. As each of these semantic fields will be discussed holistically, these sections will also discuss alienable nouns belonging to these fields and set out how they relate to the inalienables. The chapter closes with section 6.3, which gives a brief presentation of predicative possession.

6.1 Alienable possession

The formation of alienable possessive pronominals has been discussed extensively in Chapter 3 on word classes. While 3.2.6 focused on the structure of the possessive pronominals, this section further works out the structure of the possessive construction as a whole, focusing on the order of possessor, possessum and possessive pronominal.

A survey of the basic possessive pronominals was given in section 3.2.6, Table 6, repeated here as Table 1.

Table 1 Basic possessive pronominals

Possessum-> Possessor:	SG	DU	TR	PL.AN	PL.INAN
1SG	(a)ye=d-i/=d-ya ¹	(a)ye=su-ya/-i	(a)ye=sko-ya/-i	(a)ye=s-ya/-i	(a)ye=na
2SG	be=d-i/=d-ya	be=su-ya/-i	be=sko-ya/-i	be=s-ya/-i	be=na
3SG	v<y>e=d-i/=d-ya	v<y>e=su-ya/-i	v<y>e=sko-ya/-i	v<y>e=s-ya/-i	v<y>e=na
1DU.INC	ku-ve=d-i/=d-ya	ku-ve=su-ya/-i	ku-ve=sko-ya/-i	ku-ve=s-ya/-i	ku-ve=na
1DU.EX	nu-ve=d-i/=d-ya	nu-ve=su-ya/-i	nu-ve=sko-ya/-i	nu-ve=s-ya/-i	nu-ve=na
2DU	mu-ve=d-i/=d-ya	mu-ve=su-ya/-i	mu-ve=sko-ya/-i	mu-ve=s-ya/-i	mu-ve=na
3DU	su-ve=d-i/=d-ya	su-ve=su-ya/-i	su-ve=sko-ya/-i	su-ve=s-ya/-i	su-ve=na
1TR	ske-ve=d-i/=d-ya	ske-ve=su-ya/-i	ske-ve=sko-ya/-i	ske-ve=s-ya/-i	ske-ve=na
1PL.INC	ko-ve=d-i/=d-ya	ko-ve=su-ya/-i	ko-ve=sko-ya/-i	ko-ve=s-ya/-i	ko-ve=na
1PL.EX	(i)nko-ve=d-i/=d-ya	(i)nko-ve=su-ya/-i	(i)nko-ve=sko-ya/-i	(i)nko-ve=s-ya/-i	(i)nko-ve=na
2PL	mko-ve=d-i/=d-ya	mko-ve=su-ya/-i	mko-ve=sko-ya/-i	mko-ve=s-ya/-i	mko-ve=na
3PL.AN	se=d-i/=d-ya	se=su-ya/-i	se=sko-ya/-i	se=s-ya/-i	se=na
3PL.INAN	nbe=d-i/d-ya	nbe=su-ya/-i	nbe=sko-ya/-i	nbe=s-ya/-i	nbe=na

As presented in Chapter 4, the possessive pronominals consist of two parts. The first part is a verb-like possessive formative *ve* that is inflected for person, number and gender of the possessor. The second part is a pronominal article closing off the NP, again indicating (person,) number and gender of the possessum. The following noun phrase illustrates the use of the possessive pronominal (a)yedya, indicating that the possessor is 1SG while the possessum is 3SG.

- (3) *romawa yedya*
 romawa ye=d-ya
 son 1SG.POS=3SG-SPC
 POSSESSUM POSS. PRONOMINAL
 'my son' [BMbp]

In Chapter 3, it was shown that the possessor and possessum parts of a possessive pronominal can be interrupted by a relative clause or proper noun, as in the following example, where the relative clause *vero dine* 'which was here' breaks up the sequence of *inko-ve* '1PL.EX-POS' and *anya* 'GIV-3SG.SPC'.

- (4) *rum inkove [vero dine]_{RC} nanya*
 rum inko-ve ve-ro di-ne an-ya
 house 1.PL.EX-POS REL-LOC place-here GIV-3SG.SPC
 'our house that was here' [GBcj]

In the examples above, only the possessum is referred to by an overt noun (*romawa* 'son' in (3), and *rum* 'house' in (4)), while the possessor is not. Both possessor and possessum are indexed on the pronominal, however. Chapter 3 has shown that even the possessor need not be referred to by an overt NP, so that a possessive pronominal *v<y>e=d-ya* '<3SG>POS=3SG-SPC' -> 'the entity that he has' can function as a possessive construction on

¹ The Numfor dialect as described by Van Hasselt (1905) has *vyeda* or *byeda* instead of *vyedya*.

its own. The following, finally, is an example where only the possessor is expressed by an overt NP, while the possessum noun is left implicit:

- (5) [vín anya]_{NP} [vyesya]_{NP}
vín an-ya v<y>e=s-ya
woman GIV-3SG.SPC <3SG>POS=3PL.AN-SPC
POSSESSOR **POSS. PRONOMINAL**
'the woman's relatives' [ALbf]

The rest of this section, however, deals with those possessive constructions in which we find both an overt possessor noun and an overt possessum noun. Those constructions fall into two types: those with the order possessor-possessum, and those with the order possessum-possessor. The first type is more frequent, and exemplified by (6).

- (6) [Ikák anine]_{NP} [snonsnon vyedya]_{NP} Kormsamba.
ikák an-i-ne snonsnon v<y>e=d-ya Kormsamba
snake GIV-3SG.SPC-this name <3SG>POS=3SG-SPC Kormsamba
[**POSSESSOR**]_{NP} [**POSSESSUM** **POSS. PRONOMINAL**]_{NP}
'This snake's name was Kormsamba.' [KObq]

The order possessum-possessor, on the other hand, is illustrated in (7).

- (7) Rofan anya dors ryew
rofan an-ya d-ors r<y>ew
dog GIV-3SG.SPC 3SG-stand <3SG>lick
- [knafofr ([romámkun anya]_{NP}) vyesya.]_{NP}
knafofr romá-mkun an-ya v<y>e=s-ya
cheek child-little GIV-3SG.SPC <3SG>POS=3PL.AN-SPC
[**POSSESSUM** [**POSSESSOR**]_{NP} **POSS.PRONOMINAL**]_{NP}
'The dog stood and licked the boy's cheeks.' [FFat]

Note that the two types have different syntactic structures. In (6) above, the possessor is expressed by a first noun phrase, while the possessum is expressed by a second, *juxtaposed*, noun phrase, which is headed by the possessum-noun and closed off with the possessive pronominal. In (7) above, on the other hand, we find the possessor-NP *embedded* in the possessum NP. As described in Chapter 5, noun phrases are usually closed off by articles indicating person, number and gender of the head noun. Given this, it is clear that the noun phrase is headed by the possessum-noun *knafofr* 'cheek', as it is this noun that is indexed by the possessive pronominal article v<y>e=s-ya as 3rd person plural animate.

Another example of a possessor-possessum order is given with (8), while (9) is a further illustration of the order possessum-possessor.

- (8) [kpu kovansiyafa]_{NP}
kpu ko-v=an-s-i-ya-fa
ancestor 1PL.INC-POS=GIV-SPC-3PL.ANIM-that-to.there
[**POSSESSOR**]_{NP}

[*fararúr* *sanya*]_{NP}
 f~ara~rúr s-an-ya
 ~RED~make 3PL.AN.POS-GIV-3SG.SPC
 [POSSESSUM POS.PRONOMINAL]_{NP}
 'our ancestors' work' [VYdj]

- (9) [*romawa* *inai* [*Manseren*]_{NP} *vyesya*]_{NP}
 romawa inai Manseren v<y>e=s-ya
 son daughter Lord <3SG>POS=3PL.AN-SPC
 [POSSESSUM [POSSESSOR]_{NP} POSS.PRONOMINAL]_{NP}
 'the Lord's sons and daughters' [YRbz]

6.2 Inalienable possession

The category of inalienables as we find it in the Biak language has properties that are quite typical cross-linguistically. Of the typical properties given by Heine (1997:172), the following are applicable to the Biak grammatical category of inalienability:

- (1) It is confined to attributive possession
- (2) It involves a tighter structural bond between possessum and possessor than is the case for alienable possession, in the sense that person, number and gender of the possessor are marked by affixes on the possessum-noun rather than on an adnominal word.
- (3) Possessive markers on inalienable nouns are more archaic than the adnominal possessive markers used in alienable constructions.
- (4) The nouns belonging to the inalienable category include kin-terms, bodypart terms and some other groups of nouns.
- (5) The inalienable category consists of a closed set of nouns, while the alienable nouns form an infinite set of nouns.

Inalienable morphology, then, is found with a number of kinship terms, with a number of bodypart terms and with a number of locational nouns or nouns referring to parts of wholes. Each of these groups has its own paradigm.

Whereas the alienable construction allows both for the order possessor-possessum and for the opposite order, the inalienable construction only allows for the order possessor possessum, as in the following example:

- (10) *Frans kmari*,
 Frans kma-r=i
 Frans father-POS.3SG=3SG
 'Frans's father' [GBdp]

Other orders are not possible:

- (11)* *kma Fransri* /*kmari* *Frans*
 kma Frans-r=i kma-POS.3SG=3SG Frans
 father Frans-POS.3SG=3SG father-POS.3SG=3SG Frans
 Frans's father / Frans's father

The rest of section 6.2 discusses the three groups of inalienables one by one.

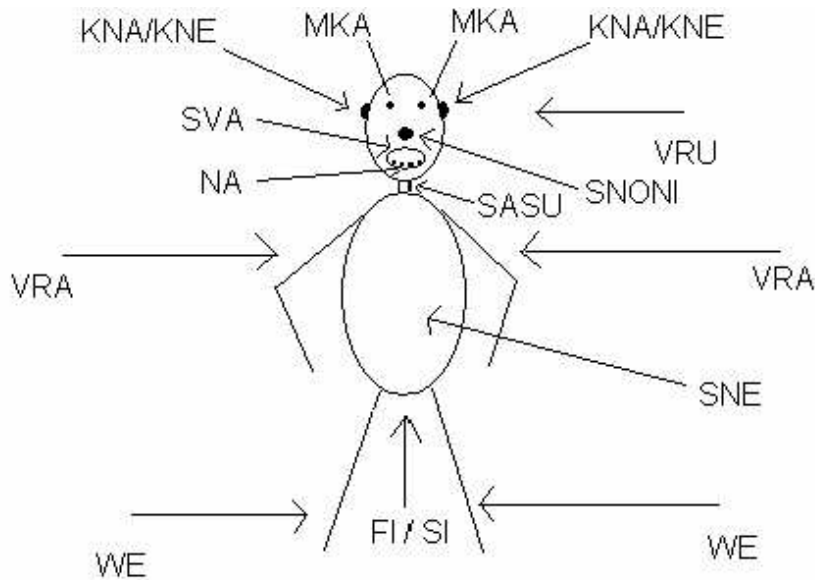
6.2.1 Bodyparts

6.2.1.1 Overview of inalienable and alienable bodypart terms

As was shown in the introduction to 6.2, a number of bodypart nouns should be classified as inalienable on the basis of their inflection. Although not all of the nouns referring to bodypart terms are inalienable, there are good reasons to deal with the group of bodypart nouns as a whole. First, the inalienable roots are closely related to alienable stems. Therefore, an account of the form and meaning of inalienable bodypart nouns cannot do without reference to the alienable bodyparts. Second, alienable and inalienable bodypart nouns share a number of distributional properties, especially those nouns referring to bodyparts appearing in pairs. The section is built up as follows. The first part gives a sketch of the semantic system, which is impossible without discussing both the compound structures of (most) bodypart nouns, and the alienable-inalienable distinction. The second part discusses the syntactic behavior of body parts appearing in pairs and their mapping with semantics.

Consider the following figure, which gives a sort of basic division of the body and, more specifically, the head:

Figure 1 Inalienable roots referring to parts of the body



The words are all inalienable roots. They are not used as independent words, but can only be used in one of the following ways.

- 1) As head of a compound, in which the inalienable root refers to a certain area of the body, while the second part further specifies what in the area is referred to.
- 2) As participating in one of the paradigms for inalienable bodyparts given in Table 3 and Table 4 below (section 6.2.1.2.) Which of the two paradigms is chosen depends on whether the bodyparts are (conceived of as) appearing in pairs or not. Some of the inalienable bodypart nouns, however, have (partly) idiosyncratic patterns of inflection.

Thus, the inalienable root *mka* can either be used in a compound like *mka-mor* 'eye-ball', or as part of an inalienable noun as in *mka-si* 'my eye(s)'. The following table shows most of the attested compounds. The last column in the table is not meant to describe the precise meaning

of the second member within the compound – which is largely lexicalized – but gives the free words to which the word or root can probably be related, at least historically.

Table 2 Alienable nouns referring to bodyparts, formed on the basis of inalienable roots

Inalienable root	compound	refers to	meaning of second member as free word
we 'leg'	<i>wemin</i>	entire leg	<i>min</i> = 'member of a group'
	<i>wepur</i>	knee	<i>pur</i> = 'back'
	<i>wempin</i>	toe	not attested
	<i>wevam</i>	downside of foot = sole	<i>bám</i> = 'wall', 'slope' ²
	<i>webon</i>	calf	<i>bon</i> = 'fruit', 'hill'
vra 'arm'	<i>vramin</i>	entire arm	See above
	<i>vrapur</i>	elbow	
	<i>vrampin</i>	finger	
	<i>vravam</i>	downside of hand = palm	
	<i>vrabon</i>	biceps	
sne 'belly-area'	<i>snewar</i>	belly, area between hips and ribs – spec. the (parts) inside	<i>wár</i> = 'water'
	<i>snepum</i>	navel	<i>pum</i> = 'that which comes out' ³
<i>fi</i> 'vagina'	<i>fidon</i>	vagina	<i>do</i> = 'inside'
<i>si</i> 'penis'	<i>sidon</i>	penis	<i>do</i> = 'inside'
<i>do</i> 'inside'	<i>dokór</i>	back	<i>kór</i> = 'bone'
<i>vru</i> 'head'	<i>vukór</i>	the entire head	<i>kór</i> = 'bone'
sva 'mouth'	<i>svadon</i>	the entire mouth	<i>do</i> = 'inside'
	<i>svardip</i>	lip	not attested
ná 'tooth'	<i>nákor</i> ¹	tooth	<i>kór</i> = 'bone'
	<i>náwar</i> ¹	gum	<i>wár</i> = 'water'
	<i>ná(m)fen</i>	back-tooth ⁴	not attested
<i>kna</i> / <i>knei</i> 'ear'	<i>kneram</i> ¹	ear, specifically ear flap	<i>rám</i> = 'leaf'
	<i>knapampyam</i>	temple / ear lobe	not attested
	<i>knafofr</i>	cheek	not attested ⁵
<i>snoni</i> 'nose'	<i>snonikór</i>	nose	<i>kór</i> = 'bone'
<i>mka</i> 'eye'	<i>mkamor</i>	area around the eye, specifically the eye ball	<i>mor</i> = 'seed', 'tuber'
	<i>mkabir mka(bi)biren</i>	eyelid	not attested
	<i>mkabei</i>	area directly above the eye, where the eyebrow grows. Lit: 'that which covers/contains the eye'	<i>bei</i> = 'shell'
	<i>mkavur</i>	hair close to the eye: eyebrows, eyelash	<i>bur</i> = 'body hair'
<i>sasu</i> 'neck'	<i>sasukór</i>	neck	<i>kór</i> = 'bone'

1 For these words I forgot to check whether the final vowel is long. Given my convention to write a short vowel when ignorant about the vowel length, I have not placed a diacritic sign on the final vowels.

² Also used for the side, e.g. of a cup. Van Hasselt (1947) also mentions the word as referring to the flat of a knife or sword.

³ In one of my texts *nyan pum* 'road outer.end' is used for the place where a forest path reaches the beach.

⁴ According to another informant, the word would refer to gums. Especially when discussing more specialistic concepts like back teeth, gums, knuckles, informants often had difficulties in getting the right words, and had conflicting intuitions. This is possibly due to language loss or dialectal differences, but may also reflect a more general (universal?) tendency for certain lexical items referring to bodyparts to have a rather 'imprecise' range of referents. It should be noted that a comparable hesitation about the precise range of referents is also found with speakers of English. To take an example, some speakers of English believe firmly that all the finger joints are "knuckles", while others believe equally firmly that the knuckles are only the joints connecting the finger as a whole and the rest of the hand, i.e. each finger and thumb has only one knuckle. Yet others allow reference to all such joints, but prototypically to the one joining the finger or thumb and the hand (Bernard Comrie, p.c.).

⁵ Van Hasselt (1947), however, mentions *fofr* (not: *knafofr* as in the Biak dialect) as the word for 'cheek'.

First note the similarity in the division of the leg and the arm. Further, there is not a separate word for 'foot', nor is there for 'hand', which is quite common in both Austronesian and Papuan languages.

Some of the nouns can form the basis of a new compound, as in *vrampin bei* 'finger nail' *wempin bei* 'toe nail' or *dokór sinan* 'back parent' -> 'backbone'.

All of the compounds in Table 2 above are alienable stems, and can as such be the head of an alienable possessive construction. This is illustrated in (12) for the compound *snewar* 'belly'.

- (12) *Snewar* *vyedyā* *iba*.
 snewar *v<y>e=d-ya* *i-ba*
 belly <3SG>POS=3SG-SPC 3SG-big
 'She was pregnant.' (Lit: 'her belly was big.') [TWbx]

The expression in (12) is semantically equivalent to the following, where we find the inalienable root *sne* used in the formation of the inalienable noun *sneri* 'her belly':

- (13) *Sneri* *iba*.
 sne-ri *i-ba*
 belly-POS.SG 3SG-big
 'She was pregnant.' (Lit: 'Her belly was big.').' [RAaw]

It is not possible, however, to use the inalienable root as head of an alienable construction (except for *do* 'inside', to which I come back at the end of this section). Example (14), then, is unacceptable:

- (14) * *Sne* *vyedyā* *iba*
 sne *v<y>e=d-ya* *i-ba*
 belly <3SG>POS=3SG-SPC 3SG-big
 *'Her belly was big.' [el]

In the corpus, the alienable compounds and the inflected inalienable nouns are used in alternating fashion. For example, in (15), the narrator uses the inalienable *svamri* 'your mouth', while two sentences later he uses the alienable *svadon* to refer to the same mouth:

- (15) *Impanu* ... *wai* *svamri* *vo*,
 impan=u ... *w-ai* *sva-m-ri* *vo*
 try=U ... 2SG-open *mouth-2-POS.SG* *SIM*
- wakorn* *inkondi*
 wa-k-orn *inko=n=ri*
 2SG-use-swallow 1.PL.EX=SEP=IRR
 'Try to open your mouth and eat us (lit: use it to eat us).' [TWeg]

- (16) *Dai svadon vyanya vo (...)*
 d-ai svadon v<y>an-ya vo
 3SG-open mouth <3SG>POS.GIV=3SG.SPC SIM
 'He opened his mouth and ...' [TWei]

We now come to the syntactic behavior of body part nouns referring to bodyparts that exist in pairs. Consider the following two examples, which are both descriptions of one and the same scene, shown independently to two different language helpers. Both example a) and example b) contain the alienable stem *mkamor* 'eye', combining with singular and plural morphology, respectively.

- (17) a *Vyás mkamori* b *Vyás mkamorsi*
 v<y>ás mkamor=i v<y>ás mkamor=s-i
 <3SG>open eye=3SG.SPC <3SG>open eye=3PL.ANIM-SPC
 'She opens her eyes.' [CB_J_58] 'She opens her eyes.' [CB_T_58]

The examples show that the grammatical number of bodypart nouns appearing in pairs does not reflect the semantic number of the referent. In fact, both (17)a and (17)b are equivocal about the semantic number of the referent; both sentences could also be used in case only one eye was opening.

For inalienable roots, the situation is comparable, but slightly more complex. Whereas for alienables the grammatical number of the noun is indexed by the determiner closing off the NP, for inalienable nouns existing in pairs the grammatical number is not clear from the form of the NP. The grammatical number is only indexed when the noun is used as subject and triggers singular or plural indexation on the verb. Thus, the same noun *mkasi* 'eye(s)' triggers plural inflection in (18), but singular inflection in (19). These two possible indexations correspond to the analysis of *mkasi* 'eye(s)' either as ending in a 3SG suffix *-i*, or a 3PL.AN suffix *-si*. I will come back to these two possible analyses in the following section.

- (18) *Mkasi sro bo.*
 mka-si s-ro bo
 eye-3PL.ANIM 3PL.AN-LOC upside
 'Literally: '(one of) its eye(s) was / were above.'
 Free translation: 'One of its eyes was above.' [MBgf]

- (19) *Fyor anya veri mkasi vyáse.*
 fyór an-ya veri mkas-i v<y>ás
 piece GIV-3SG.SPC precisely eye-3SG <3SG>open
 Literally 'At that time, his eye(s) opened.'
 Free translation: 'At that time, his eyes opened.' [MMbs]

Comparable to the alienable bodypart nouns, here too the grammatical number is equivocal about the number of the referent. Paradoxically, the plural inflection on *sro* '3PL.AN-LOC' in (18) corresponds to a singular referent, while the singular indexation on *v<y>áse* '<3SG>open' in (19) has a nonsingular interpretation.⁶

⁶ In addition to the examples in (17)a and (19), where singular grammatical number can be used for reference to both bodyparts, the corpus also contains examples of the opposite, where plural grammatical number refers to a single bodypart. Whereas I have attested examples of *inalienable nouns* triggering plural indexation for

In many cases, then, the number of the referent of the possessum seems irrelevant for the communicative purpose. The language has several strategies, however, to disambiguate between the two possible interpretations. Thus, in (20) the use of a dual (in an alienable construction) makes clear that it is both eyes that are intended.

- (20) *Pyan ro mkamor vyesuya*
 p<y>an ro mkamor v<y>e=su-ya
 <3SG>touch LOC eye <3SG>POS=3DU-SPC
- fa dóve idwarku mkamor vyesuya*
 fa d-óve i-dwark=u mkamor v<y>e=su-ya
 CONS 3SG-say 3SG-block =U eye <3SG>POS=3DU-SPC
 'He held his hand at his eyes, as he planned to block both his eyes' [FYb]

The following two sentences, on the other hand, show strategies to refer to one of the bodyparts. While (21) refers to one specific bodypart, (22) only expresses that 'one of his eyes' is bleeding.

- (21) *Vyuk wemin rasarya iskop i*
 v<y>uk wemin rasar=ya i-skop i
 <3SG>use leg left-3SG.SPC 3SG-kick 3SG
 'He used his left leg to kick him.' [CPaq]
- (22) *Mkasi esero iríke.*
 mka-si eser=o i-rík
 eye-3PL.ANIM one=nonSP.SG 3SG-bleed
 'One of his eyes is bleeding.' [el]

The inalienable roots given in Table 2 at the beginning of this section cover most of the body. To close this section, a number of terms for other bodyparts (most of them alienable) are given here.

reference to singular bodyparts, as in (18) above, I have not come across any convincing examples of plural *alienable nouns* referring to singulars. This is probably an accidental gap in my data.

(23) Terms for other bodyparts (alienable, unless indicated otherwise)

awukór 'back-head'
andar 'forehead'
wur 'jaw'
wurkór 'chin'
arorn 'throat'
ramar 'tongue'
snomburyam 'head hair'
snovur 'moustache'
fasfis 'joint'
urk 'vein'
do~don 'inside' (*inalienable*)⁷
fadu 'middle' (*inalienable*)
kodon 'buttocks', having a corresponding inalienable root *kro*.
sus 'breast'

Note that a number of these forms are also morphologically complex: *awukór*, and *wurkór* all contain the formative *kór* 'bone'. *Snomburyam* and *snovur* both contain the formative *sno(n/m)*, which could be related to the inalienable root *sno* 'name'. Finally it should be noted that the words *do* 'inside' and *fadu* 'middle' can function both as independent alienable words, and as inalienable roots. In this respect they differ from the inalienable roots given in Table 2 above, which cannot be used as independent words, given the ungrammaticality of (14) above.

6.2.1.2 Inalienable morphology

The inflection of bodyparts that do not appear in pairs is given in Table 3. In addition to the inalienable roots given in Figure 1 above, the paradigm is also followed by the following roots: *sno* 'name', related to alienable *snonsnon* 'name', *kro* 'buttocks', related to inalienable *kodon* 'buttocks', *fadu* 'middle' and *do* 'inside' (with the stem *don* used as base for plurally possessed items).

Table 3 Inalienable morphology for bodyparts that do not appear in pairs, illustrated by *vru* 'head'

<i>vru</i> 'head'				
	sg	du	tr	pl
1g	<i>vru-ri</i> 'my head'	<i>impossible</i>		
2sg	<i>vru-m-ri</i> 'your head'			
3sg	<i>vru-ri</i> 'his head'			
1du.inc	<i>impossible</i>	ku-vru-s-na		
1du.exc		nu-vru-s-na		
2du		mu-vru-m-s-na		
3du		su-vru-s-na		
3tr		sko-vru-s-na		
1pl.inc		ko-vru-s-na		
1pl.ex		nko-vru-s-na		
2pl		mko-vru-m-s-na		
3pl.an		si-vru-s-na		

⁷ The stem *do* is used as base for singular possessed nouns, while *don* is used as base for plurally possessed nouns, cf. the outset of 6.2.1.2.

While singular possessors are expressed by means of suffixes on the possessum-noun, plural possessors are primarily signaled by prefixes. These prefixes are formally similar to the free pronouns (as given in 3.2.1, Table 1). Whereas most Austronesian languages in the area have suffixes for the expression of inalienable possession, this 'shift to prefixes' is only found partially in Biak and Ambai, but complete in Waropen (Klamer, Reesink and Van Staden to appear). Note, however, that the inalienable forms also have suffixal material referring to the possessor. It is clear that *-m* in 2nd dual and 2nd plural reflects second person possessor while the suffix *-s* can be analyzed as a reflection of the non-singularity and animateness of the possessor.⁸ I have chosen to gloss *-ri* as POS.SG, to express that it generalizes over all singular possessors. A form like *vru-m-ri* is glossed 'head-2-POS.SG', while *vru-ri* is glossed as 'head-POS.SG'.⁹

The final *-na* found in the nonsingular forms in the table above expresses both plurality and inanimateness of the possessum. This is clear from the fact that these nouns trigger plural inanimate agreement on the verb, as in the following example:

(24)	<i>Nusnesna</i>	<i>nro</i>	<i>i.</i>
	nu-sne-s-na	n-ro	i
	1DU.EX-belly-nonSG.AN-3PL.INAN	3.PL.INAN-LOC	3SG
	'The two of us love him.' (Lit: 'Our bellies are with him.')		

It is now time to consider again the morphology of nouns referring to bodyparts that appear in pairs. Their morphology is given in Table 4 below. This morphology is also used for the inflection of *ná* 'tooth' and *snoni* 'nose'.

⁸ Compare the paradigm of the free pronouns, where all nonsingular 2nd persons have *m*: *mu* '2DU' and *mko* '2PL'. All nonsingular third persons have an initial *s*: *si* '3PL.AN', *su* '3DU' and *sko* '3TR'.

⁹ The fact that *vruri* is used for 1st and 3rd person possessors, then, is not indicated in the gloss. An alternative glossing convention would be *vru-∅-ri* 'head-1~3-POS.SG'. In my view, it is the **absence** of the *-m* suffix that leads to the interpretation of the expression as referring to 1st or 3rd person. The form of the inflected inalienable noun, then, makes no reference to 1st or 3rd person, which makes my glossing preferable over the alternative that uses ∅. I realize, however, that my glossing convention is *ad hoc*, while a similar reasoning would, for example, lead to a different glossing of pronominal articles in cases like *rám=ya*. I have chosen to gloss such forms as 'leaf=3SG.SPC' and not as leaf=SPC, although one could argue here that it is the absence of a preceding person.number marker that leads to the interpretation of the marker as a 3SG form.

Table 4 Inalienable morphology for bodyparts that appear in pairs, illustrated by *we* 'leg'

<i>we</i> 'leg'	
1g	we-si 'my leg(s)'
2sg	we-m-si
3sg	we-si
1du incl	ku-we-s-na
1du exc	nu-we-s-na
2du	mu-we-m-s-na
3du	su-we-s-na
3tr	sko-we-s-na
1pl inc	ko-we-s-na
1pl exc	nko-we-s-na
2pl	mko-we-m-s-na
3pl	si-we-s-na

Note that the paradigm for plural possessors is the same as that for bodyparts that do not appear in pairs. The forms differ, however, in the singular, in that we find *si* instead of *ri*. As was shown in the preceding section, these forms may trigger both plural verbal inflection, illustrated in (25), and singular inflection, which is illustrated in (26).

(25) *Mkasi* *sro* *bo*.
 mka-si s-ro bo
 eye-3PL.ANIM 3PL.AN-LOC upside
 'One of its eyes was above' [MBgf]

(26) *Borkya* *kyar* *i* *indya* *wesi* *i-vyar*.
 bork=ya k<y>ar i indya wes-i i-vyar
 thorn=3SG.SPC <3SG>cut 3SG so foot-3SG 3SG-swollen
 'A thorn wounded her, so her foot is swollen'. [RAbd]

It seems, then, that the forms in Table 4 with singular possessor can be analyzed in two ways. The wide use of singular inflection with singular possessed bodypart nouns (i.e. those ending in *si* in Table 4 above) in my opinion shows that a reanalysis is taking place, where *we-si* 'leg-3PL.AN' is reanalyzed as *wes-i* 'leg-3SG'. The reanalyzed paradigm, then, looks as follows:

Table 5 Reanalyzed inalienable morphology for bodyparts that appear in pairs, illustrated by *we* 'leg'

1g	wes- i 'my leg(s)'
2sg	wes- m-s-i ¹⁰
3sg	wes- i
1du.in	ku-wes-na
1du.ex	nu-wes-na
2du	mu-we-m-s-na
3du	su-wes-na
3tr	sko-wes-na
1pl.in	ko--wes-na
1pl.ex	nko-wes-na
2pl	mko-we-m-s-na
3pl	si-wes-na

In both analyses, the forms end in suffixes that are formally similar to free pronouns (*i* '3SG' and *si* '3PL.AN'). Although they seem similar to pronominal articles, (= *i* '3SG.SPC' and = *s-i* '3PL.AN-SPC'), they lack the distinction between prepausal and other forms; while pronominal articles end in *ya* in other than prepausal position, this is not true for the suffixes under discussion here. This difference is illustrated in the following example:

(27) a	<i>Vyan</i>	<i>mkamorsi.</i>	c	<i>Vyan</i>	<i>mkasi.</i>
b	<i>Vyan</i>	<i>mkamorsya ...</i>	d *	<i>Vyan</i>	<i>mkasya</i>
	v<y>an	mkamor= s-i~s-ya		v<y>an	mka- si~*-sya
	<3SG>wash	eye- 3PL.AN-SPC		<3SG>wash	eye- 3PL.AN
	'He washes his eyes.'				

Thus, while the alienable noun *mkamor* 'eye' can combine with both = *s-i* and = *s-ya*, the inalienable noun *mka* can only combine with *si*, which shows that it is more like a pronoun instead of a pronominal marker.

In my opinion, the fact that the bodypart nouns end in a sort of pronoun that lacks a non-prepausal form ending in *ya* can be used to account for the reanalysis described above. Consider the following sentence:

(28)	' <i>Wesi</i>	<i>si-vyar.</i> '
	we-si	si-vyar
	leg-3PL.ANIM	3PL.AN-swollen
	'His feet (legs) are swollen.' [el]	

The sentence above contains two identical formatives, expressing essentially the same information. Moreover, the first *si* is very close to a free pronoun, and pronouns are not used in subject position.¹¹ It is not surprising, then, that instead of (28) above, we far more

¹⁰ It is possible to either analyze the affix *m* as a 2nd person infix, or to analyze the entire root *wems* as an allomorph used for 2nd person possessor.

¹¹ The same is true for the pronominal-like suffixes found after proper nouns, which *tend* not to be used in subject position.

frequently encounter [wesivyar], which then can be reanalyzed as *wes-i i-vyar* 'leg-3SG 3SG-swollen' (in which one *i* is elided for phonological reasons).¹²

A number of nouns that refer to bodyparts can also be used to refer to parts of other wholes. Examples are *wemin* 'leg' used for the legs of a chair, *nákor* 'tooth' used for the teeth of a saw, or *do* used for the inside of a non-animate entity. However, it seems not possible to use the inalienable paradigms as discussed in this section. In other words, the paradigms discussed are (largely) reserved for reference to bodyparts of animates. An interesting example is the noun *do* 'inside'. When referring to a human's inside (usually in a figurative sense), it can follow the paradigm given for *vru* 'head' above, as in the following example:

- (29) *skodonsna* *nasam*
 sko-don-s-na *nasam*
 3PC-inside-nonSG.AN-3PL.INAN 3PL.INAN-hot
 'They are angry.' (Lit: 'Their inside is hard.') [e]

When referring to parts of other wholes, however, it follows the pattern for locational nouns, discussed in 6.2.3 below. When referring to the inside of a number of glasses, for example, it is not possible to use the inalienable morphology used for bodypart nouns, even though *gelas* is formally animate. Compare the ungrammatical use of inalienable bodypart morphology in (30), with the grammatical use of locational inalienable morphology (31):

- (30)* **gelas** *sine* *sidonsna*
 gelas s-i-ne *si-don-s-na*
 glass 3PL.AN-this 3PL.AN-inside-nonSG.AN-3PL.INAN
 ? 'the insides of the glasses' [e]
- (31) **gelas** *sine* *don-si*
 gelas s-i-ne don-si
 glass 3PL.AN-this inside-3PL.AN
 'the insides of these glasses' [e]

Likewise, the inalienably inflected *si-na-s-na* 'their teeth' can be used to refer to human teeth, but not for referring to the teeth of a saw, even though a saw (**gergaji**) is formally animate.

6.2.2 Kinship

While the preceding section first gave the semantics and then presented the forms, this section is built up the other way round. First, section 6.2.2.1 focuses on the morphology of kinship nouns, section 6.2.2.2 pays further attention to the semantics of the system as a whole.

6.2.2.1 The morphology of inalienable kinship nouns

Most of the inalienable kinship nouns follow the paradigm that is given in Table 6.

¹² Here, of course, one could question whether the form should be analyzed as *wes-i ivyar* 'foot 3SG 3SG-swollen', with elision of second *i*, or better as *wes i-vyar* 'foot 3SG-swollen', in which the final *i* of the inalienable is not present. Example like *mkas-i v<y>áse* 'eye-3SG <3SG>open' (cf. (19) above), however, show that the inalienable nouns indeed end in final *-i*; the corpus contains no examples like *mkas v<y>áse*, which shows that elision of *i* is phonologically conditioned and only found before *i*-initial verbs.

Table 6 Inalienable morphology for kinship terms, illustrated by *me* 'cross-uncle'

<i>me</i> 'cross uncle'				
	sg	du	tr	pl
1g	imem(=i) 'my CU'	imem(=su) 'my two CU's'	imem(=sko) 'my few CU's' etc.	<i>no inalienable construction possible</i>
2sg	me-m(=i) 'your CU' etc.	me-m(=su) 'your two CU's' etc.	me-m(=sko)	
3sg	me-r(=i)	me-r(=su)	me-r(=sko)	
1du	<i>no inalienable construction possible</i> ¹³			
2du				
3du				
3tr				
1pl				
2pl				
3pl				

Although the paradigm shows some similarities to the paradigm of bodyparts given in Table 3 above, there are considerable differences, both in morphological form and syntactic behavior. The following points should be noted.

First, some words need to be said concerning the cliticized pronouns, given in brackets. With respect to their distribution, it should be noted that they are used in non-subject position, but may be elided in subject position, as illustrated in the following examples:

- (32) *Ine* **besi** *ras* *epondya*
 i-ne besi ras e-pon=rya
 3SG.SPC-this iron day REL-front=ANAPH

Abel **kmar** *d-ór* *fa*
 Abel kma-r d-ór fa
 Abel father-POS.3SG 3SG-call CONS

isosn *pyan* *ani*.
 i-sosn pyan an-i
 3SG-bump help GIV-3SG.SPC

'This is the iron that Abel's father some days ago asked to help and repair it (lit: bump, i.e. make a grip on)' [YWfw]

- (33) *Indya* *da* **kmar** *skákmam* ...
 indya da kma-r sk^h-ák-mam
 so probably father-POS.3SG 3PC-also-see
 'So her father and his brothers had probably also seen (that she seemed pregnant) ...' [MSqg]

The elision in subject position is not obligatory, however, as is clear from the use of a subject *kma-r=i* 'father-POS.3SG=3SG' in (37) below. In non-subject position, on the other hand,

¹³ Steinhauer (2003: 15-16), however, basing himself upon a speaker of the Korido dialect, offers a more complete paradigm. My informants in Wardo never came up with inalienable constructions for plurally possessed kinship terms, and my corpus doesn't even contain a single example of them. Future research should point out whether speakers of the Wardo dialect would accept the forms as presented by Steinhauer.

the cliticized pronoun cannot be elided, as is clear from the obligatory presence of =*i* '3SG' in the following example:¹⁴

- (34) *Syéwar* *kmar*(i)*.
 s<y>éwar kma-r=i
 <3SG>seek father-POS.3SG=3SG
 'He looked for his father.' [MMhs]

With respect to the meaning of the cliticized pronouns, note that the interpretation of non-singular pronouns depends on the context. Thus, the expression *imem=su* 'my.uncle=3DU' can be interpreted as 'my two uncles', as indicated in Table 6 above, but also as 'my uncle and his wife', or 'my uncle and his friend' etc. , dependent on the context.

Second, all of the nouns following the paradigm given in Table 6 above, have an idiosyncratic form for a 1SG possessor, like *imem* in the table above and use a shorter form as base for 2nd and 3rd person possessors. For a number of nouns, the 1SG is also used as a vocative. The following table gives a survey of those nouns that follow the pattern illustrated by *imem* 'cross-uncle' above:

Table 7 Inalienables following the paradigm of *me* 'cross-uncle'

	1SG possessor	base for 2SG and 3SG possessor
father / father's brother	<i>kamam</i>	<i>kma</i>
mother / mother's sister	<i>awin</i>	<i>sna</i>
cross-uncle	<i>imem</i>	<i>me</i>
cross-sibling's child	<i>kafnom</i>	<i>fno</i>
grandparent / grandchild	<i>apus</i>	<i>kpu</i>
spouse	no inalienable ¹⁵	<i>swa</i>

Third, the noun that is used as base for 2SG and 3SG possessor can also be used as head of alienable possessive constructions. Thus, for 'his father', we find both the inalienable possessive construction *kmari*, illustrated in (35) and the alienable possessive construction *kma vyedi*, given in (36).

- (35) *kmari*
 kma-r=i
 father-POS.3SG=3SG
 'his father' [BVdc]

- (36) *kma vyedi*.
 kma v<y>e=d-i
 father <3SG>POS=3SG-SPC
 'his father' [MMhs]

The inalienable kinship nouns can also be used in other contexts, as is illustrated by *kma* 'father' and *kpu* 'grandfather' in the example below.

¹⁴ The distribution of the cliticized pronouns is reminiscent of that of free pronouns, in that both are used in non-subject position. However, while cliticized pronouns are optionally elided in subject position, free pronouns cannot be used in subject position at all.

¹⁵ To refer to 'my wife', a man uses *in-sar ye=d-i* 'female-old 1SG.POS=3SG-SPC' -> 'my old (or: honored) woman', or *in-be-sna yedi* 'female-REL-mother' -> 'my wife.and.children', while a woman refers to her husband as *man-sar ye=d-i* 'male-old 1SG.POS=3SG-SPC' -> 'my old (or: honored) man.'

(37) *Indya kmari dór aya ve kma,*
indya kma-r=i d-ór aya ve kma
 so father-POS.3SG=3SG 3SG-call 1SG as father

indya skór aya ve kpu.
indya sk^h-ór aya ve kpu
 so 3PC-call 1SG as kin.±2

'So his (the bridegroom's) father calls me 'father', so they (i.e. he and his siblings) call me 'grandfather'.' [BVbd]

The sentence above is part of a speech held by one of my language helpers, who, as a relative of a bridegroom, went to the prospective bride's parents to talk about the bride price. In the passage this sentence is taken from, he is explaining his family relation to the bridegroom.

A number of inalienable nouns follow other, (partly) idiosyncratic patterns. Three of these paradigms are given in Table 8 through Table 10 below. As there are no inalienable forms for non-singular possessors, the tables are restricted to singular possessors.

Table 8 Inalienable morphology for *mebin* 'cross-aunt'

<i>mebin</i> 'father's sister (FS)'				
	sg	du	tr	pl
1sg	<i>mebin(=i)</i> 'my MB'	<i>mebin(=su)</i>	<i>mebin(=sko)</i>	<i>no inalienable construction possible</i>
2sg	<i>me-m-bir-m-ri</i> 'your MB' etc.	<i>me-m-bir-m-ri(=su)</i>	<i>me-m-bir-m-ri(=sko)</i>	
3sg	<i>mebin-di</i> ¹⁶	<i>mebin-di(=sko)</i>	<i>mebin-di(=sko)</i>	

Table 9 Inalienable morphology for *srar* 'cross-sibling'

<i>srar</i> 'cross-sibling'	sg
1g	<i>srar aye=d=i</i> (<i>no inalienable morphology available</i>)
2sg	<i>srar-m-ri</i> 'your cross-sibling'
3sg	<i>sra-di</i> 'his cross-sibling'

The noun *srar* is also used as independent alienable noun. The same is true for *napirm* 'mother's brother's child / father's sister's child', which is also used, however, as part of the inalienable paradigm, used for 1sg possessor and as a vocative.

Table 10 Inalienable morphology for *napirm* 'cross-cousin'

<i>napirm</i> 'cross-cousin'	sg
1g	<i>napirm / napi</i>
2sg	<i>napir-m-ri</i>
3sg	<i>napirm v<y>e=d-i</i> (<i>no inalienable morphology available</i>)

6.2.2.2 Overview of inalienable and alienable kinship terms

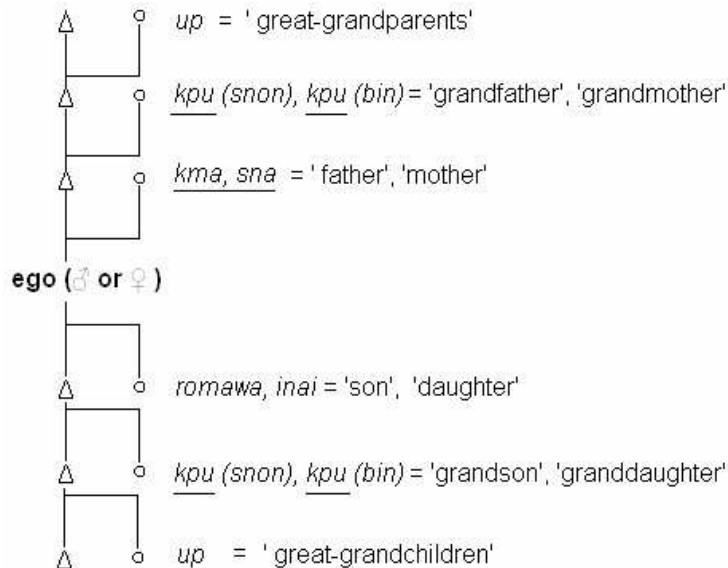
This section gives an overview of the terminology used for reference to kin. Figure 2 below gives the terms for those consanguinal relations that are linked to ego by vertical parent-child-relationship.¹⁷ In Figure 2 through Figure 7 below,¹⁸ the nouns without underscore do not

¹⁶ Recall the rule that /r/ is realized as [d] following /n/, cf. 2.6.2.1)

¹⁷ Although I have tried to ask for nouns used for more than two generations up and down, people could not give me any reliable data. They either did not know, or had to think about it for a long time, and the data given to me

combine with inalienable morphology, while the words having an underscore are inalienable roots. The latter are used as base for 2SG and 3SG-possessor inalienable nouns, but are also attested as independent words, as has been described in the previous section. For 1SG-possessor inalienables, the language in most cases uses longer forms, which have been given in Table 7 above.

Figure 2 (Great-)(grand)parents and great(grand)children



Note the symmetry in the system: the same words are used for kin two generations up and two generations down. This means that if someone is your *kpu*, you are also his or her *kpu*, and that you are considered *up* with respect to your own *up*. Also note that *kma* 'father' and *sna* 'mother' are inalienables, while *romawa*~*romá* 'son' and *inai* 'daughter' are alienable forms. The latter two words have a wider use, *romawa*~*roma* being used as a term for 'boy' or 'child', *inai* being used as a general term for a 'young girl'. Whereas *inai* is used only for reference to females, the term *romawa*~*roma* may have a specialized interpretation 'son', or a general interpretation 'child', dependent on the context. The following example illustrates both interpretations, the first *romawa* referring to children in general, the second *roma* to males.

- (38) (...) *isofro* *nuna* *romawa* *dio*¹⁹ *samfur*:
 isofro nu-na romawa di=o samfur
 until 1DU.EX-have child NUM.LNK=O ten

were not consistent. I think that there may have been forms for the concepts in question, but that they are getting lost.

¹⁸ Figure 2 and Figure 3 have been taken over from Rutherford 1995 (appendix, chart 1 and 2), although all the data have been checked with speakers of the Wardo dialect. The other figures have been made up by the researcher, although some of them are reminiscent of the charts presented in Rutherford 1995 (appendix) and Rutherford 1998 (266).

¹⁹ The story is told by a woman from the island Rani, which probably accounts for the use of *di* instead of *ri*, which would be the usual form in the Wardo dialect.

<i>romá</i>	<i>di</i>	<i>fik,</i>	<i>inai</i>	<i>di</i>	<i>kyor.</i>
romá	ri	fik	inai	di	kyor
child	NUM.LNK	seven	daughter	NUM.LNK	three

'Until we two had ten children: seven sons and three daughters.' [RVbk]

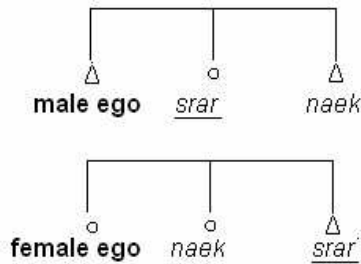
Another example illustrating the two interpretations is the following, where *romamkun* should be interpreted as 'child', while *romawa* is to be interpreted as 'boy'.

(39) *Inai suine sumám vir²⁰ romámkun anine*
inai su-i-ne su-mám vir romá-mkun an-i-ne
 girl DU-SPC-this 3DU-see aware child-little GIV-3SG.SPC-this

ve romawa.
 ve romawa
 as child
 'These two girls recognized this little child as a boy.' [MScj]

Turning to the terms for siblings, the main point to be made is that they are classified according to the feature 'same sex', or 'different sex', for with the terms *naek* 'parallel sibling' and *srar* 'cross sibling'. The situation is depicted in Figure 3.

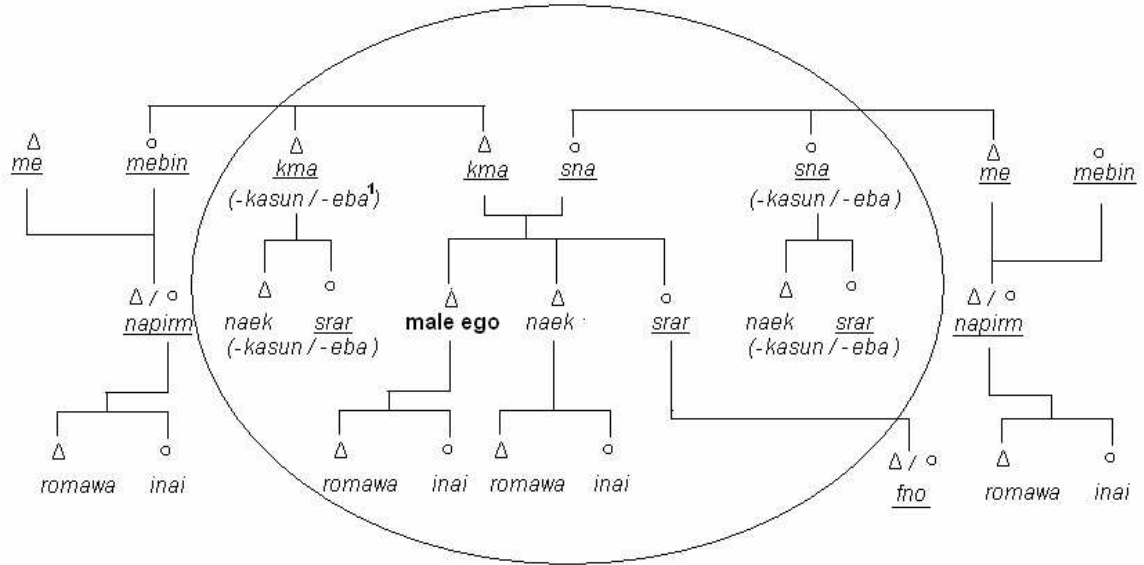
Figure 3 Siblings



We now turn to the relatives who are linked to ego via a sibling relationship. In other words, we consider the persons who are in a sibling relationship to ego or to ego's parents and their offspring. Those persons having offspring and linked via a sibling relationship are called *linking relatives*. The sibling relationship is of crucial importance for the system. Consider Figure 4 and Figure 5, illustrating the terms used when ego is male and female, respectively.

²⁰ The formative *vir* is a postverb, the meaning of which is not entirely clear. For a discussion on postverbs, see section 4.3.2.

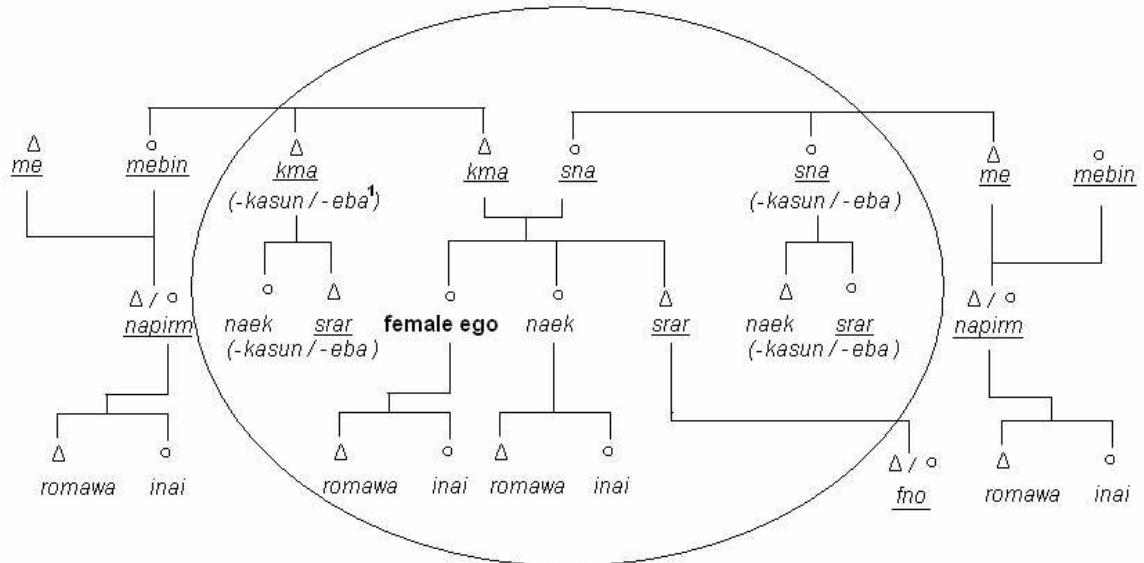
Figure 4 Relations via siblings of same sex and siblings of opposite sex, male ego.



1: *kasun* can be used for father's younger brother or mother's younger sister and their children. *e-ba* 'REL-big' is used for father's older brother or mother's older sister and their children.

While the figure above gives the terms for a male ego's kin, Figure 5 below does the same for a female ego's kin:

Figure 5 Relations via siblings of same sex and siblings of opposite sex, female ego



1: *kasun* 'small' is used for father's younger brother or mother's younger sister and their children. *e-ba* 'REL-big' is used for father's older brother or mother's older sister and their children.

Note that the only difference between Figure 4 and Figure 5 is the mirrored *naek* 'parallel sibling' and *srar* 'cross-sibling' relationships. Considering the figures, it is clear that relatives related through parallel siblings are termed differently from relatives related through cross-siblings. The distinction between cross-siblings and parallel siblings, then, is of paramount importance for the Biak classification system, which is a typical feature for many of the

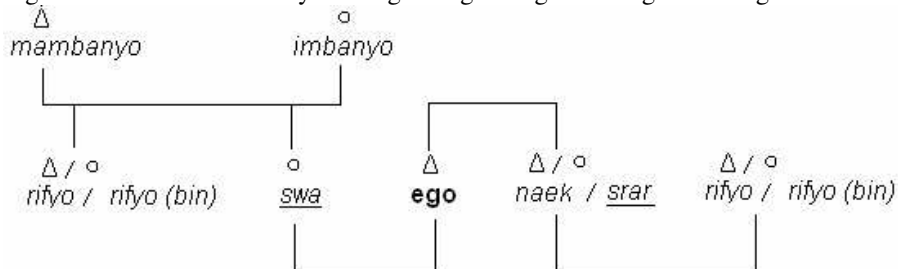
classification systems in other languages of the province Papua.²¹ In both Figure 4 and Figure 5, the big oval marks off those relations related via parallel siblings from those related via cross-siblings. Thus, while *me* 'cross-uncle' and *mebin* 'cross-aunt' are both cross-siblings of one of ego's parents (FZ or MB),²² *sna* and *kma* are ego's parents' parallel siblings (FB or MZ). This difference is also reflected in the names for their children. *Me* and *mebin*'s children are termed *napirm*, while *sna* and *kma*'s children are termed exactly like ego's direct siblings.

The terms *kasun* 'small' and *e-ba* 'REL-big' are used as specifications for parallel-relatives (i.e. related via a parallel sibling). Ego will refer to his parallel uncle as *kamam e-ba* 'my.father REL-big' (the vocative) in case he is older than his father, and will call him *kma-kamam kasun* 'father small' in case he is younger. This designation is carried over to *kamam*'s children. The term *naek kasun* 'parallel.sibling small' refers to father's younger brother's child or mother's younger sister's child, which has the same sex as ego.

In addition to the symmetrical relations (great-)grandfather-(great-)grandchild given in Figure 2, the two figures just given show one additional symmetrical relation, which is the relation between *napirm* 'cross-cousin'. The other relations are not symmetrical, but reciprocal. The first is that between *imem* / *mebin* and *fno*: if someone is your *imem* 'cross-uncle' or *mebin* 'cross-aunt', then you are his or her *fno* 'child.of.cross.sibling' and vice versa. If someone is your *romawa* / *inai* ('son' / 'daughter'), you are his or her *kma* 'father' or *sna* 'mother'.

Turning to affinal relations, Figure 4 and 5 show how MBW (mother's brother's wife) is termed the same as the consanguinally related FS, while FSH is termed the same as MB. Figure 6 and 7 below show that the terms for spouse and in-laws are independent of ego's sex. *Swa* is used for spouse, *mambanyo* for 'father in law', *imbanyo* for 'mother in law', and *rifyo* for 'sibling in law'.

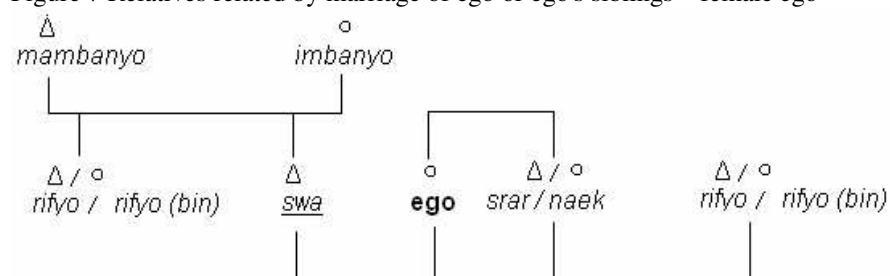
Figure 6 Relatives related by marriage of ego or ego's siblings –male ego



²¹ For the importance of the cross-sibling and the sibling relationship in Biak, cf. Rutherford 1995:14f, Rutherford 1998:265f and Rutherford 2003: 49f. She describes how marriage between cross cousins is prohibited, but both possible and highly desirable between their descendants from the fourth generation onwards. For the importance of the distinction between cross-siblings and parallel siblings for the classification system as a whole in other languages of Irian Jaya, cf. Van Enk and De Vries 1997:140.

²² The abbreviations used are taken from Foley (1997:135). F=father, M=mother, Z=sister, B=brother. FB should be read as Father's Brother. In addition, I use the abbreviation Ch for Child.

Figure 7 Relatives related by marriage of ego or ego's siblings – female ego



Here, again some of the relations in this field are symmetrical: if someone is your *swa* 'spouse', you are his / her *swa*, and your *rifyo* also considers you as his or her *rifyo*. Two final terms to be mentioned are *imbikin* and *mambikin*, used for 'daughter in law' and 'son in law', respectively.²³

6.2.3 Locational nouns or other semantically inalienable nouns

The morphology for locational nouns is given in the following table. The forms for 2SG, 3PC, and 3PL.AN were not attested in the corpus, but have been obtained by elicitation.

Table 11 Inalienable morphology used for locationals, illustrated by *bo* 'upside'

<i>bo</i> 'upper part / area above'					
	sg	du	tr	pl.anim	pl.inan.
1	<i>not attested</i>	NOT ATTESTED			
2	bo-m-ri				
3	bo-ri	bo-n-su	bo-n-sko	bo-n-si	bo-n-na

The suffix *-n* that is used in the forms for nonsingular possession may refer to the nonsingularity and inanimateness of the possessor. This hypothesis is strengthened when the forms are compared to plurally possessed bodyparts like *si-we-s-na* (compare Table 4 above). In these forms, the suffix *-s* can be analyzed as expressing the nonsingularity and animateness of the possessor.^{24,25}

In principle, every noun that is conceived of as referring to an 'inherently related' location (the semantics of which we will come back to below) can be used in an inalienable possessive construction. However, while all of these nouns can combine with a 3SG possessive suffix *-ri*, only a very small number of nouns have wider inflectional possibilities, following the paradigm of *bo* given above. The only nouns that have been proven to follow the wider inflectional paradigm are *do* 'inside' and *fadu* 'middle'. It cannot be excluded, however, that some additional nouns may be found. The following is an example of *bo* inflected for 3DU possessum, given by a language helper as the description of a scene shown to him:

²³ Rutherford, who stayed in Northern Biak, mentions other terms instead: *imbansus* and *manbansus* for 'daughter in law (son's wife)' and 'son in law (daughter's husband)', respectively (Rutherford 2003:50, note 17). Note the greater formal similarity of these terms to *imbanyo* 'mother in law' and *mambanyo* 'father in law', respectively.

²⁴ Compare section 6.2.1.2, where it is shown how bodypart morphology is used for reference to bodyparts of (semantically) animates, while locational morphology has a broader use.

²⁵ An additional argument for this analysis is given by an additional paradigm given in Steinhauer (2003: 17), who gives the form *mka-s-su* 'eye-nonSG.AN-3DU' (my gloss) as an inalienable form for explicit reference to 'two eyes.'

- (40) **Bal** *ine* *vyark* *ro* *karuisuya* *bonsu*
 Bal i-ne v<y>ark ro karui=su-ya bo-n-su
 Ball 3SG.SPC-this <3SG>lie LOC stone=3DU-SPC upside-nonSG.INAM-3DU
 'This ball lies on top of two stones (lit: on two stones their upside)' [OBT_50]

As stated above, all nouns that can be perceived of as 'inherently related location' can combine with the possessive suffix *-ri*. The term 'inherently related location' is chosen by lack of a better alternative, but primarily refers to locations that are inherently connected to an entity. Thus, many physical entities can be conceived of as having an 'inside' and an 'upside', while other entities may have more specific locations connected to them. A tree, for example, is conceived of in Biak as having a *vidwóm* 'upper part' and a *fúwar* 'down part', while a canoe can be divided into *rawn* 'the front part', *fadu* 'middle part' and *wurn* 'back part'. The following is a list of all the attested words combining with *-ri*:

Table 12 Locational nouns combining with *ri*

<i>noun</i>	<i>meaning</i>	<i>noun</i>	<i>meaning</i>
<i>bo</i>	upside	<i>rawn</i>	front part of canoe
<i>do</i>	inside	<i>fúwar</i>	down part of tree
<i>fadu</i>	middle	<i>wurn</i>	back part of canoe
<i>bav</i> ²⁶	downside	<i>andír</i>	side

Another group of nouns combining with *-ri* is the group of compounds of the form *var-DIR* 'side-DIR', like *var-pur* 'side-back' or *var-ri* 'side-out', described in 9.5.4. The following two sentences are further illustrations of the use of locational nouns.

- (41) *Dáwe* *ve* *randip* *ro* **[karunya]_{NP}** **[dori]_{NP}**.
 d-áwe ve randip ro karun=ya do-ri
 3SG-squeal as pig LOC bag=3SG.SPC inside-POS.SG
POSSESSOR-NP LOCATIONAL NOUN
 'It squealed as a pig inside the bag'. [MTak]

- (42) *Snonkakuya* *dóf* *ro* **[karapesaya]_{NP}** **[varpurdi]_{NP}**.
 snonkaku=ya d-óf ro karapesa=ya var-pur-ri
 human.being-3SG.SPC 3SG-hide LOC chair=3SG.SPC side-back-POS.SG
POSSESSOR-NP LOCATIONAL NOUN
 'A / the person is hiding at the back of the chair' [GY64]

It is typical for locational nouns that the inalienable suffixes can be left out. Thus, (43) below is equivalent to (42) above. Both are descriptions of the same scene, by different informants.

- (43) *Dóf* *ro* **kursiya** **varpur**
 d-óf ro kursi=ya var-pur
 3SG-hide LOC chair=3SG.SPC side-back
POSSESSOR-NP LOCATIONAL NOUN
 'He hid at the back of a chair.' [GT64]

²⁶ For this noun, the inflected form is *bavdi*, not **bavri*.

ro bo vyedi.
 ro bo v<y>e=d-i
 LOC upside <3SG>POS=3SG-SPC
 'This dove flew above him' [KOcj]

To close, some further illustrations of the use of 'locational nouns' are presented below.

(48) *Ipyas bós i*
 i-pyas bós i
 3SG-strike.with.flat.hand dead 3SG

ro imbyef anya fúwardi.
 ro imbyef an-ya fúwar-ri
 LOC banana GIV-3SG.SPC lower.part-POS.SG
 'He hit him down under the tree'. [WRar]

(49) *Mankapinarar k<y>ain ro waiya rawndi,*
 mankapinarar k<y>ain ro wai=ya rawn-ri
 <k.o.fish> sit-3SG LOC canoe=3SG.SPC front.part-POS.SG

wus kyain ro waiya wurndi.
 wus k<y>ain ro wai=ya wurn-ri
 <k.o..fish> sit-3SG LOC canoe=3SG.SPC stern-POS.SG
 'The *mankapinarar*-fish sat in the front of the canoe, the *wus*-fish sat in the stern.' [MWac]

6.3 Predicative possession

Predicative possession is expressed by means of the verb *na* 'have', inflected for person, number and gender of the possessor, and taking the noun phrase referring to the possessum as the object. This verb *na* is possibly related to the POC marker of general possession * *na* (Lynch 2001: 77). Some examples of the use of this verb are the following:

(50) *Yana insya síbóre.*
 ya-na in=s-ya si-^Hbór
 1SG-have fish= 3PL.AN-SPC 3PL.AN-much
 'I have a lot of fish' [MMgq]

(51) *Kalau nkona rovean=no va ido(..)*
 Kalau nko-na rovean=no va ido
 When 1PL.EX-have food=nonSP.nonSG not THEM
 'When we have no food (...)' [SSby]

In the following sentence we find both attributive possession (in the noun phrases *vin anine* and *sinan vyesya*) and predicative possession (with the verb *na*):

(52) *isofro na [vín anine]_{NP} [sinan vyesya]_{NP}*
 isofro na vín an-i-ne sinan v<y>e=s-ya
 until then female GIV-3SG.SPC-this parent <3SG>POS=3PL.AN-SPC

<i>sna</i>	<i>movo</i>	<i>ro</i>	<i>diwa</i>
s-na	mov=o	ro	di-wa
3PL.AN-have	place=nonSP.SG	LOC	place-over.there

<i>fa</i>	<i>som</i>	<i>va</i>	<i>ido (...)</i>
fa	s-om	va	ido
CONS	3PL.AN-cut.through	not	THEM

'until (the moment) when this woman's parents do not have a place to make a garden'
[ALau]

7 REDUPLICATION

The Biak language has several types of reduplication. While full reduplication is attested, partial reduplication is far more frequent. This chapter is built up as follows. Following the presentation of some non-reduplicative types of repetition in 7.1, section 7.2 deals with full reduplication, while 7.3 and 7.4 discuss both the patterns and the functions of partial Ca(C)-reduplication. Section 7.5 finally gives some examples of Ci(C)-reduplication

7.1 Non-reduplicative types of repetition

The main concern of this chapter is with reduplication, which can be defined as the repetition of (parts of) the stem. This section, however, gives some examples of other types of repetition. First, the corpus contains some examples of the repetition of an inflected verb, as in (1) or of a verb plus its object, as in (2).

- (1) *Suséwar* *suséwar* *rao* *rofan* *anya*
 su-séwar su-séwar rao rofan an-ya
 3DU-seek 3DU-seek until dog GIV-3SG.SPC
- syéwar* *ro* *botolya* *dori* *ma* *orova.*
 s<y>éwar ro botol=ya do-ri ma orova
 <3SG>seek LOC bottle=3SG.SPC inside-POS.SG and no
 'The two sought and sought until the dog sought inside the bottle, but no (he did not find the frog).' [FAan]

- (2) *Indya* *dún* *i* *dún* *i*
 indya d-ún i d-ún i
 so 3SG-carry 3SG 3SG-carry 3SG
- dún* *i* *dún* *i* *rao (...)*
 d-ún i d-ún i rao
 3SG-carry 3SG 3SG-carry 3SG until
 'So he carried him (the child) on and on, until (...)' [FYcy]

In both (1) and (2) above, the repetition serves to indicate durativity. Repetition of noun phrases is found in the construction noun=nonSP.SG noun=nonSP.SG, where it indicates multiplicity (cf. the end of section 5.2.2). The use of the NP-final nonSP marker =*o* shows that we have to do with the repetition of an entire NP, and not with the repetition of bare nouns, which is described in 7.2.1 below.

- (3) *Ono* *sibur* *ve* *movo* *movo*
 ono si-bur ve mov=o mov=o
 INDEF.PL 3PL.ANIM-leave to place=nonSP.SG place=nonSP.SG
- vaím* *kám* *vo (...)*
 vaím kám vo
 not.yet all SIM
 'There were not yet any people at all who had left to other places and (...)' [MSap]

Another type of repetition is found in tail-head linkage, touched upon at the outset of Chapter 10 and in 10.6.3.

7.2 Full reduplication

7.2.1 Full reduplication of nouns

One of the few examples of noun reduplication is found in the fixed expression (*ro*) *ras~ras* '(LOC) day~day', as in the following example:

- (4) *Fararúru* *inkove* *ero* *rásrasna*
 f~ara~rúr =u inko-ve e-ro ras~ras=na
 ~RED~make=U 1PL.EX-POS- REL-LOC day~day=3PL.INAN.SPC
- nkofararúr* *ro* *sup* (...)
 nko-f~ara~rúr ro sup
 1PL.EX-~RED~make=U LOC land
 'Our daily work, (is that) we work on the land (...)' [SSaz]

Apart from this, reduplication of nouns seems virtually absent.¹ One of the scarce examples is found in a sermon that contains a lot of code-switching, which strongly suggests that the use of reduplication here is due to influence from Indonesian or local Malay:

- (5) *Smun* *kawasa~kawasa* *kristen* *eveari*
 s-mun kawasa~kawasa kristen e-ve-ari
 3PL.AN-kill people-people Christian REL-VBLZ-service
- ra* *konsya.*
 ra ko=n=s-ya
 along 1PL.INC=SEP=3PL.AN-SPC
 'They killed the Christians that were having a service like us.' [PDay]

Influence from Malay probably also accounts for the use of noun reduplication in the examples below, all taken from the 1990 New Testament:

- (6) a) *ve-barara~ve-barara=s-ya* 'REL-big REL-big=3PL.AN-SPC' -> 'the elders'
 (Luke 22:25)
 b) *avyair~avyair* 'signs' (John 3:2)
 c) *wos~wos veso* (...) 'word~word different' -> '(they spoke in) different languages'
 (Acts 2:5)²

Note that in (5) and (6 a) above, the use of one NP-final determiner =*s-ya* for both nouns shows that this is an instance of full noun reduplication, instead of NP-repetition. The same is true for the use of *veso* 'different' in (6 c), modifying the reduplicated noun *wos~wos* 'word~word'.

7.2.2 Full reduplication of numerals

Although reduplication of numerals is one of the most widespread uses of reduplication in the Austronesian languages (Adelaar and Himmelmann, 2005:122), it is attested in the corpus

¹ Van Hasselt (1905:8) also mentions *rob-rob* 'night-night'.

² I was told that the Biak 1990 New Testament translators made use of the Indonesian Bible translation *kabar baik* (Good news). This translation, however, uses a reduplicated form in Luke 22:25, but does not have reduplicated forms in the other two verses. Comparison with other translations could show whether the use of reduplicated forms in Biak can indeed be seen as due to reduplicated forms in Indonesian source texts.

only for the numeral *oser~eser* 'one'. It has been described in Chapter 3, and has either a plural indefinite or a distributive reading. The indefinite reading is illustrated in (7), while (8) illustrates the distributive reading.

- (7) *Eser-eser* *sisya* *fa* *sifawi* *syadi* *aya*.
 eser~eser si-is-ya fa si-fawi syadi aya
 one~one 3PL.AN-PRED-that CONS 3PL.AN-know more 1SG [PDdp]
 'There are several among the church members who know more than I do.' [PDdp]
- (8) *Oser~oser* *betanggungjawab* *fararúr* *bena*.
 oser~oser be-tanggungjawab f~ara~rúr be=na
 one~one 2SG.VBLZ-responsible ~RED~make 2.SG.POS=3PL.INAN.SPC
 'Each of you is responsible for his own deeds.' [KMba]

Although no examples of the reduplication of other numerals were found in the corpus, the following Bible verse (Mk 6:7) suggests that reduplication of numerals can be used to express groupings, although it may very well be influenced by the Indonesian source text:³

- (9) (...) *iwan* *si* *fa* *se-surusuru*.
 i-wan si fa se suru~suru
 3SG-send 3PL.ANIM CONS 3PL.AN.VBLZ-two-two
 '(...) he sent them out (so that they were) two by two.'

7.2.3 Full reduplication verbal and other roots

Full reduplication of verbal roots is rare. It is attested in the corpus for roots prefixed with *far-*, which expresses affectedness of the Theme (cf. section 4.3.1.4). The reduplication functions to express iterativity, which in combination with *far-* expresses a total negative affectedness of the Theme.

- (10) a *Fyarmkir*. b *Fyarmkirmkir*.
 f<y>ar-mkir F<y>AR-mkir-mkir
 <3SG>FAR-have.hole <3SG>FAR-have.hole-have.hole
 'It is leaky (one hole created).' [el] 'It is totally leaky (many holes created).' [el]
- (11) a *Fyarmuk*. b *Fyarmukmuk*
 F<y>AR-muk F<y>AR -in.two-in.two
 <3SG>FAR-in.two <3SG>FAR-cut-cut
 'It is (cut) in two.' [el] 'It is in many pieces.' [CB_P_35]

Although the words in (10) a and (11) a are not reduplicated in their entirety, I nevertheless classify them as instances of full reduplication. This is because the reduplicated parts, *mkir* and *muk* are reduplicated in their entirety, without elision of consonants or change of vowels, as will be described for partial reduplication in 7.3. Moreover, in the examples above, it is still a **full root** that is copied, while this is not necessarily the case for the partial reduplication patterns described in 7.3.

³ The Indonesian translation on which the Biak here was probably based has *berdua-dua* 'ber-two-two'.

7.3 Partial reduplication: the patterns

While full reduplication is rare in Biak, partial reduplication is attested rather frequently. Partial reduplication is typical for verbs, in that the great majority of verbs allow for it, while it is not attested systematically with members of other lexical classes. In partial reduplication, only part of the root is copied, resulting in reduplicants of the form *aC*, or *(a)Ca(C)*. I will refer to this type of reduplication as *Ca(C)*-reduplication. There seems to be no correlation between pattern and function, in the sense that certain patterns would be exclusively used for certain functions or vice versa. As a general rule, the different reduplication patterns are in complementary distribution, which means that a root is reduplicated according to one of the possible patterns, and not the other. A few roots, however, have more than one reduplicated counterpart, but only in a very few cases does this implicate a difference in meaning. While section 7.3 presents the formal patterns of reduplication, section 7.4 is concerned with their function.

This section serves to describe the formal relation in terms of segmental structure between the reduplicated verb root and the non-reduplicated base to which it can be related. Consider Table 1 through Table 3 below, which give the main patterns of partial reduplication. The reduplicants are written in bold.

The first pattern is illustrated in Table 1, and takes roots of the form *VC(C)* as input. For these roots, the form of the reduplicant has the form **aC**, and is fully predictable. We will come back to this pattern in 7.3.1.

Table 1 Reduplication patterns of roots of the form *VC(C)*, illustrated by *om* 'cut through', *enf* 'sleep'

#	V	C₁	(C₂)	#	#	a	C₁	-	V	C₁	(C₂)	#
	<i>o</i>	<i>m</i>				<i>a</i>	<i>m</i>	-	<i>o</i>	<i>m</i>		
	<i>e</i>	<i>n</i>	<i>f</i>			<i>a</i>	<i>n</i>	-	<i>e</i>	<i>n</i>	<i>f</i>	

Pattern 2, illustrated in Table 2, is the pattern used for roots of the form *#(...)(V)CV(C)(C)#*. For these roots, the form of the reduplicant is only partly predictable, and is either **Ca** or **CaC**. This pattern is further discussed in 7.3.2.

Table 2 Reduplication patterns of roots of the form *#(...)(V)CV(C)(C)#*, illustrated by *so* 'throw', *fawi* 'know', *mun* 'kill', *sun* 'enter', *karaw* 'steal', *fasos* 'prepare', *marisn* 'happy'

#	(...)	(V)	C₁	V	(C₂)	(C₃)	#	#	(...)	(V)	C₁	a	(C₂)	-	C₁	V	(C₂)	(C₃)
			<i>s</i>	<i>o</i>							<i>s</i>	<i>a</i>		-	<i>so</i>			
	<i>f</i>	<i>a</i>	<i>w</i>	<i>i</i>				<i>f</i>	<i>a</i>	<i>w</i>	<i>a</i>			-	<i>w</i>	<i>i</i>		
			<i>m</i>	<i>u</i>	<i>n</i>					<i>m</i>	<i>a</i>			-	<i>m</i>	<i>u</i>	<i>n</i>	
			<i>s</i>	<i>u</i>	<i>n</i>					<i>s</i>	<i>a</i>	<i>n</i>		-	<i>s</i>	<i>u</i>	<i>n</i>	
	<i>k</i>	<i>a</i>	<i>r</i>	<i>a</i>	<i>w</i>			<i>k</i>	<i>a</i>	<i>r</i>	<i>a</i>	<i>w</i>		-	<i>r</i>	<i>a</i>	<i>w</i>	
	<i>f</i>	<i>a</i>	<i>s</i>	<i>o</i>	<i>s</i>			<i>f</i>	<i>a</i>	<i>s</i>	<i>a</i>			-	<i>s</i>	<i>o</i>	<i>s</i>	
	<i>m</i>	<i>a</i>	<i>r</i>	<i>i</i>	<i>s</i>	<i>n</i>		<i>m</i>	<i>a</i>	<i>r</i>	<i>a</i>	<i>s</i>		-	<i>r</i>	<i>i</i>	<i>s</i>	<i>n</i>

Table 3, finally, shows how roots of the form *#(...)CCV(C)(C)#*, like *snarm* 'smell' or *skop* 'kick' follow one of the two given patterns: either pattern 3 or pattern 4, both discussed in 7.3.3. As will be set out there, pattern 3 comes close to pattern 2, in that the form of the reduplicant is partly predictable (either **aC** or **aCaC**) on the basis of base-*final* material. Pattern 4, on the other hand, copies base-*initial* material.

Table 3 Reduplication patterns of roots of the form #(...)CCV(C)(C)#, illustrated by *snarm* 'smell', *msór* 'angry', *skop* 'kick' and *kafrok* 'strike hard'

#	(...)	C ₁	C ₂	V	(C ₃)	(C ₄)	#	3	#	(...)	C ₁	a	C ₂	a	(C ₃)	-	C ₂	V	(C ₃)	(C ₄)
		<i>s</i>	<i>n</i>	<i>a</i>	<i>r</i>	<i>m</i>					<i>s</i>	<i>a</i>	<i>n</i>	<i>a</i>	<i>r</i>	-	<i>n</i>	<i>a</i>	<i>r</i>	<i>m</i>
		<i>m</i>	<i>s</i>	<i>ó</i>	<i>r</i>						<i>m</i>	<i>a</i>	<i>s</i>	<i>a</i>		-	<i>s</i>	<i>ó</i>	<i>r</i>	
								4			C ₁	a			-	C ₁	C ₂	V	(C ₃)	(C ₄)
		<i>s</i>	<i>k</i>	<i>o</i>	<i>p</i>						<i>s</i>	<i>a</i>			-	<i>s</i>	<i>k</i>	<i>o</i>	<i>p</i>	
	<i>ka</i>	<i>f</i>	<i>r</i>	<i>o</i>	<i>k</i>					<i>ka</i>	<i>f</i>	<i>a</i>			-	<i>f</i>	<i>r</i>	<i>o</i>	<i>k</i>	

Before turning to the description of the patterns in detail, a number of remarks need to be made about the overall pattern. First, as stated above, the form of the reduplicant is fully predictable only for roots of the form V(C)(C) (cf. Table 1) and the few roots of the form CV (Table 2). In all other cases, which pattern is chosen by a specific base is lexically determined, partly restricted by the phonological and morphological make up of the base. Thus, for a root like *sun* 'enter', having the segmental make-up CVC, the language has two possible patterns available: Ca-reduplication, or CaC-reduplication. As illustrated in Table 2 above, the language opts for CaC-reduplication resulting in *sansun*, a choice that is lexically determined.

Second, note that in most of the patterns given above, it is (part of) the final part of the root that is copied. Considering the pattern given in Table 2 above, it is (part of) the final syllable of the word that is copied (assuming that a final CC cluster is part of the same syllable, cf. 2.2.3, especially note 15). Any preceding material, like *fa* in *fawi* 'know', or *ma* in *marisn* 'happy' is 'invisible' for the reduplication process. The patterns given in Table 3 can be analyzed in similar fashion. In pattern A, any material preceding the last CV(C)(C)-sequence is invisible, so that neither *m* in *msór* 'angry' nor *s* in *snarm* are copied. In pattern B, on the other hand, any material preceding the last syllable is invisible, so that *ka* in *kafrok* is not part of the reduplicant. These seemingly complex patterns of reduplication can be accounted for, when it is taken into account that in many cases the material preceding the final part of the root is a petrified prefix. As set out in Chapter 4 on verbs, this is true for *m(a)-*, *f(a)-*, and *k(a)-*. This may indicate that the reduplication process originally copied base-initial material, skipping prefixal material. More on this phenomenon of petrified prefixes and the relation to the reduplication pattern can be found later on in this chapter.

Most of the patterns described below can best be accounted for by assuming that the reduplication consists of the following three steps:

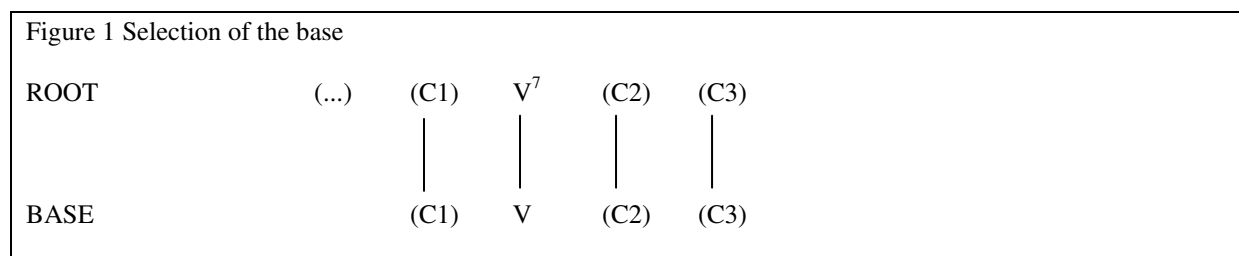
- (1) the selection of the base
- (2) the matching of the base to the template of the reduplicant.
- (3) the placement of the reduplicant directly before the base selected in (1).

The first step works as follows. The base is maximally a root, and maximally has the form CVCC. In most cases, the base is chosen by taking every consonant from the right side of the root up till and including the first (sequence of) vowels. When this (sequence of) V('s)⁵ is preceded by a root-internal consonant, this is also taken as part of the base. Thus, taking the root *warn* 'awake', the base simply coincides with the root, as the first (sequence of) V('s) from the right is preceded by one (consonantal) segment only. In the case of *kwán* 'long',

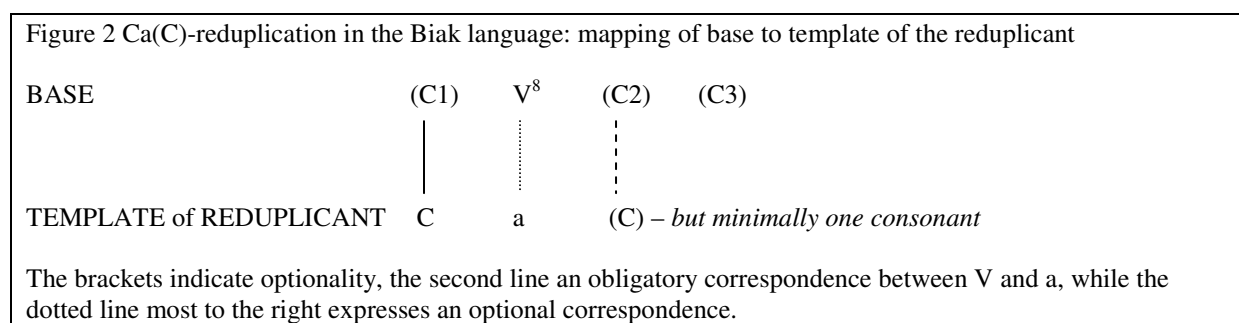
⁵ A sequence of root-internal vowels is rare. In the attested example of *kain* 'sit', the vowel sequence *ai* is replaced with one *a* in the reduplicant, so that the reduplicated form is *kankain*.

however, the base is *wán*, not *kwán*, because only one consonant can precede the vowel of the base.⁶

The selection of the base is presented in the following figure.



In the second step, the base is mapped on to a template of consonants and vowels, prespecified for the value *a*. This template has the form Ca(C). This step is illustrated in Figure 2 below.



In the figure above, note the remark '*but minimally one consonant*', which prevents the formation of reduplicants consisting of only *a* in case of a root of the form VC(C). Also note the different function of the brackets and the dotted line. The brackets show that C1 is not necessarily present in the base, but the closed line indicated that **if** it is present it **must** be copied. For C2, however, the dotted line indicates that it **may** be copied, so that reduplication of *sun* 'enter' results in *san~sun* 'clothe(s)', whereas *mun* 'kill' corresponds with *ma~mun* 'RED~enter'. The mapping procedure works from left to right, so that each consonant of the base is mapped with a consonantal position in the reduplicant, and each vowel corresponds to a position filled by the vowel *a*. The mapping must restrict itself to a continuous portion of the template. This means that no positions in the template can be skipped, except the first, namely when the base is vowel-initial. For vowel-initial bases, which may have the form VC₁C₂ or VC₁, this means that the only possible outcome for the reduplicant is aC₁. Thus, the base *om* 'cut through' results in *am*, while the base *ors* 'stand' results in a reduplicant *ar*. For bases of the form C₁V C₂ (C₃), the reduplicant can be C₁a or C₁a C₂, but the final C₃ has to be erased. Thus, the base *risn* (selected from the root *marisn*) is CaC-reduplicated, resulting in a reduplicant *ras*, while the base *for* 'forbid' is Ca-reduplicated, resulting in a reduplicant *fa*.

⁶ Another way to define the procedure is the following: take the last syllable of the root. If this syllable starts with a sequence of two consonants, then skip the first consonant.

⁷ In reduplication, a sequence of a vowel followed by the vowel *i* counts as one vowel. A root *kain* 'sit', then, corresponds to a base *kain*.

⁸ Here, again, the sequence of a vowel plus *i* counts as one vowel, so that the base *kain* from the root *kain* 'sit' results in a reduplicant *kan* and in a reduplicated form *kankain*.

In the third step, the reduplicated form of the reduplicant is placed directly before the base. Thus, taking the just given examples, the reduplicant *am* is placed before the base *om*, resulting in *am~om* 'RED~om', the reduplicant *ras* is placed before *risn*, resulting in *ma~ras~risn* 'RED~happy', while the reduplicant *fa* is placed before *for*, resulting in *fa~for* 'RED~forbid'. The rest of section 7.3 is basically an illustration of the pattern described up till now. Exceptions to this pattern are mainly found in the category of roots ending in CCV(C)(C) and will be described in 7.3.3.

Finally, it should be noted that reduplicated forms follow the inflectional pattern of the base. Thus, a verb like *kor* 'count', which is inflected according to the mixed pattern, also follows the mixed pattern when reduplicated, so that the 3SG form is *k<y>arkor* '<3SG>RED~count' rather than **i-kar~kor* '3SG-RED~kor'.

7.3.1 Roots of the form VC(C)

The reduplication pattern of roots of the form VC(C) is fully predictable on the basis of their segmental structure. Following the procedure for base-selection given above, the base for reduplication coincides with the entire root. The reduplicant has the form aC. The pattern can be formalized as in **Pattern 1**, where the brackets again indicate optionality.

Pattern 1 Reduplication pattern for vowel-initial monosyllabic roots				
BASE		(V	C2	(C3) _{ROOT}
REDUPLICATED FORM	a	C2	V	C2 (C3)

The closed lines between the skeletal slots of the base and the skeletal slots of the reduplicated form indicate necessary correspondences. For C3, this means that it is optionally there in the base, but that if it is present in the base it is necessarily also present in the reduplicated form. The following table lists several examples, first several roots of the form VC, followed by some roots of the form VCC. The reduplicant has an underscore.

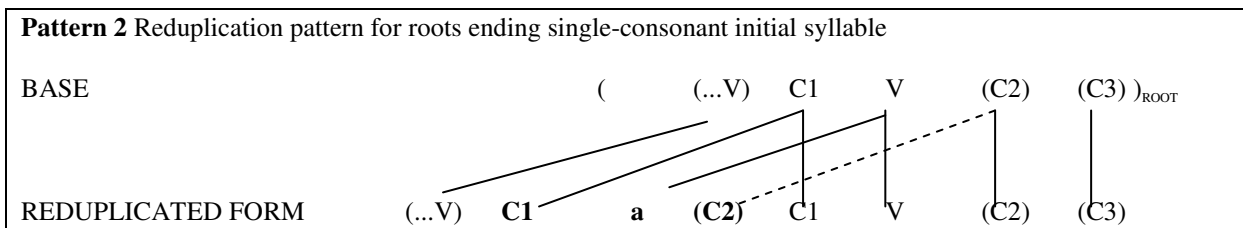
Table 4 Monosyllabic vowel-initial roots: base and reduplicated form

<i>an</i> 'eat (<i>transitive</i>)'	<i>anan</i> 'eat (<i>intransitive</i>)'
<i>as</i> 'swim'	<i>asas</i> 'swim.for.fish' ⁹
<i>ék</i> 'ascend'	<i>akék</i> 'use to ascend'
<i>ís</i> 'rub'	<i>asís</i> 'rub each other'
<i>om</i> 'clear away (<i>transitive</i>)'	<i>amom</i> 'clear away (<i>intransitive</i>)'
<i>úf</i> 'take'	<i>afúf</i> 'harvest' [el] ¹⁰
<i>ark</i> 'bite (<i>punctual, transitive</i>)'	<i>arark</i> 'bite (<i>habitual</i>)' [el]
<i>enf</i> 'sleep'	<i>anenf</i> 'sleep continually' [el]
<i>inm</i> 'drink (v)'	<i>aninm</i> 'drink (n)'
<i>opr</i> 'jump'	<i>apopr</i> 'jump continually'
<i>usr</i> 'follow'	<i>asusr</i> 'follow continually'

I have not succeeded in obtaining reliable information with respect to the stress pattern of reduplicated forms. For this reason, I have chosen not to indicate lexical stress in any of the reduplicated forms throughout this thesis.¹¹

7.3.2 Roots ending in (V)CV(C)(C)

As stated above, the language has two possible patterns of reduplication available: Ca-reduplication or CaC-reduplication. The choice for either of the two patterns is lexically determined. A generalization over the two patterns is given with Pattern 2 below.



Whereas the first C of the base (C1) is always copied, forms vary with respect to the second consonant (C2). Table 5 lists a number of monosyllables of the form CV, while Table 6 gives some polysyllabic roots.

⁹ The translations of reduplicated forms in Table 4 through Table 15 are based on the use of the forms in the corpus. This explains why some translations reflect the use of the reduplicated form as a nominal, while other translations reflect the use of the reduplicated form as a verb. The translations, then, are not exhaustive, but reflections of the use of the forms as attested in the corpus.

¹⁰ Throughout this chapter, most of the reduplicated forms marked with [el] 'elicitation' were obtained from Fautngil and Rumbrawer (2001) and from Suparno (1977), but checked by a Wardo speaker. I presented this Wardo speaker (i.e. one of my informants) with the forms and asked him for each of the forms whether it was also used in the Wardo dialect, and whether the Wardo dialect (also) used an alternative form. I also asked him to form a sentence with the reduplicated form in question.

¹¹ Length of the vowel in a final closed syllable, however, is indicated, as is also usual for non-reduplicated words. Thus, the reduplicated form of *ék* is written as *akék*, where the diacritic sign on *é* should be read as an indication of its length, while the absence of a diacritic sign on top of the *a* should be read as a sign of ignorance with respect to its length. It is not clear, then, whether the reduplicants of syllables with long vowels are also long.

Table 5 Monosyllabic roots of form CV: base and reduplicated form

<i>ba</i> 'big'	<u>ba</u> <i>ba</i> 'bigness'
<i>na</i> 'have'	<u>na</u> <i>na</i> 'possession'
<i>so</i> 'throw'	<u>sa</u> <i>so</i> 'throwing' [e]
<i>ki</i> 'float'	<u>ka</u> <i>ki</i> 'current'
<i>su</i> 'pull'	<u>sa</u> <i>su</i> 'use to pull'

Table 6 Polysyllabic roots ending (V)CV: base and reduplicated form

<i>fawi</i> 'know'	<u>fa</u> <i>wawi</i> 'knowledge'
<i>masi</i> 'bathe'	<u>ma</u> <i>sasi</i> 'bathe' [e]
<i>sabu</i> 'descend'	<u>sa</u> <i>ba</i> <i>bu</i> 'decline' [e]
<i>mafu</i> 'dream'	<u>ma</u> <i>fa</i> <i>fu</i> 'dream' [e]
<i>nyaki</i> 'owe'	<u>nyaka</u> <i>ki</i> 'owe always' [e]
<i>sápi</i> 'fall'	<u>sa</u> <i>pa</i> <i>pi</i> 'use to fall'
<i>faba</i> 'be big in <X>' ¹²	<u>fa</u> <u>ba</u> <i>ba</i> 'use to be big in <X>'

Roots ending in CVC(C) can opt for either Ca-reduplication or CaC-reduplication. Ca-reduplication is exemplified for monosyllables in Table 7 and for words of more syllables in Table 8.¹³

Table 7 Roots of form CVC(C) (1): Ca-reduplication

<i>pok</i> 'be able'	<u>pa</u> <i>pok</i> 'be able all the time' [e]
<i>mun</i> 'hit'	<u>ma</u> <i>mun</i> 'kill all the time; murdering'
<i>kek</i> 'spread'	<u>ka</u> <i>kek</i> 'spread all'
<i>for</i> 'forbid'	<u>fa</u> <i>for</i> 'taboo'
<i>kar</i> 'break'	<u>ka</u> <i>kar</i> 'cut loose sago pulp'
<i>wark</i> 'guard' (<i>postverb</i>)	<u>wa</u> <i>wark</i> 'guard continually'

Table 8 Polysyllabic roots ending in (V)CVC(C) (1): Ca-reduplication¹⁴

<i>fawar</i> 'tell'	<u>fa</u> <u>wa</u> <i>war</i> 'telling'
<i>kápa</i> <i>f</i> 'collapse'	<u>ka</u> <u>pa</u> <u>pa</u> <i>f</i> 'ruins' [e]
<i>fasos</i> 'prepare'	<u>fa</u> <u>sa</u> <i>so</i> 'preparation'
<i>emír</i> 'alone'	<u>em</u> <u>am</u> <i>ír</i> 'loneliness'

CaC-reduplication, on the other hand, is illustrated for monosyllables in Table 9 and for polysyllabic forms in Table 10:

¹² An example of the use of *faba* 'be big in' is given with *yafaba wóse* '1SG-be.big.in-word' -> 'I talk a lot'.

¹³ For ease of description, all words of the form (C)VCC are considered monosyllabic, cf. section 2.2.3,

¹⁴ The corpus contains no examples of VCVCC-final roots exhibiting Ca-reduplication, which I consider as an accidental gap in the data.

Table 9 Roots of form CVC(C) (2): CaC-reduplication

<i>sun</i> 'enter'	<i>sansun</i> 'clothes'
<i>kón</i> 'sit'	<i>kankón</i> 'meeting'
<i>disn</i> 'sing'	<i>dasdisn</i> 'singing'
<i>mewr</i> 'refuse'	<i>mawmewr</i> 'refusal'
<i>naps</i> 'fair'	<i>napnaps</i> 'fairness'
<i>far.kor</i> 'learn, teach (<i>transitive</i>)'	<i>far.karkor</i> 'learning, teaching (<i>intransitive</i>)'
<i>far.kin</i> 'guide'	<i>far.kankin</i> 'guidance'
<i>far.vuk</i> 'marry'	<i>far.vakvuk</i> 'marriage'
<i>pok</i> 'be able'	<i>pakpok</i> 'power' [el] ¹⁵

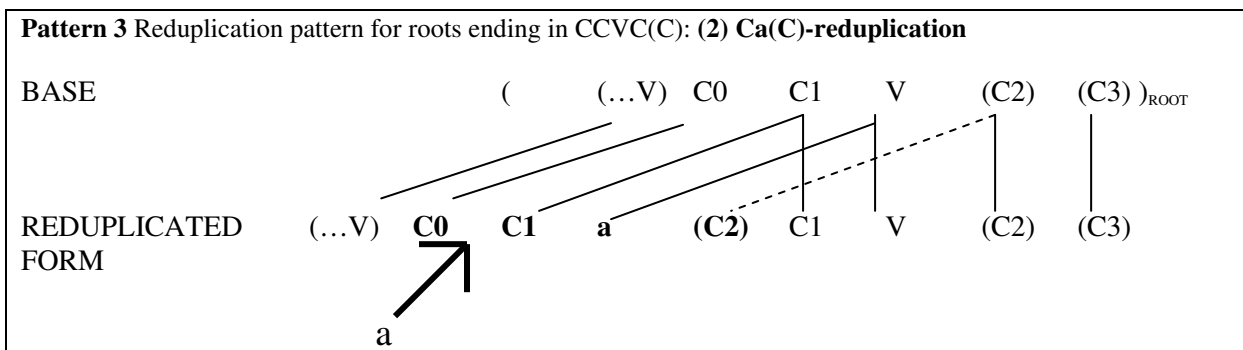
Table 10 Polysyllabic roots ending in (V)CVC(C) (2): CaC-reduplication

<i>karaw</i> 'steal'	<i>karawraw</i> 'stealing'
<i>áyun</i> 'sail'	<i>áyanyun</i> 'sailing'
<i>marisn</i> 'happy'	<i>marasrisn</i> 'happiness'

Considering the polysyllabic forms given in Table 6, Table 8 and Table 10 above, the data do not contradict the earlier suggestion that the Biak language originally copied base-initial material, in the sense that it is clear that for some forms the material preceding the copied base is originally prefixal. This is true for forms like *fa(-)ba* 'greedy', *ma(-)risn* 'happy', *ká(-)paf* 'collapse', and is also true for the still productive prefix *far-* found in the final forms of Table 9. For the majority of forms, however, it cannot be decided whether the material preceding the base is originally prefixal. Synchronically, this question is of no importance, given the fact that virtually all polysyllabic forms ending in (V)CV(C)(C) follow the pattern described here (pattern 2). In other words, the question whether they are (originally) polymorphemic or not is synchronically irrelevant for the reduplication pattern chosen.

7.3.3 The reduplication of roots ending in CCV(C)(C)

For roots ending in CCV(C)(C), we find two patterns. The first pattern basically follows the two procedures given in Figure 1 and Figure 2 above, the only difference being the addition of an extra *a*, which has the effect that the creation of a consonantal cluster is avoided. The pattern is presented here:



Illustrations of the pattern above are given in Table 11, illustrating Ca-reduplication, and Table 12, illustrating CaC-reduplication. Note that the roots *mnis* 'fit' and *snarm* 'smell' can reduplicate according to both patterns, without any difference in meaning.

¹⁵ According to one of my informants, *pakpok* is used as noun and not as a verb, while *papok* is used as a verb and not as a noun. The verbal *pápok* can be used to refer to a man who is always after women.

Table 11 Roots ending in CCVC(C) (1): **Ca**-reduplication

<i>msór</i> 'angry'	<i>masasór</i> 'anger'
<i>mnis</i> 'fit, similar'	<i>mananis</i> 'similarity'
<i>mkák</i> 'fear'	<i>makakák</i> 'fear'
<i>frúr</i> 'make'	<i>fararúr</i> 'work'
<i>snarm</i> 'smell'	<i>sanarnarm</i> 'smell' (noun) [el]

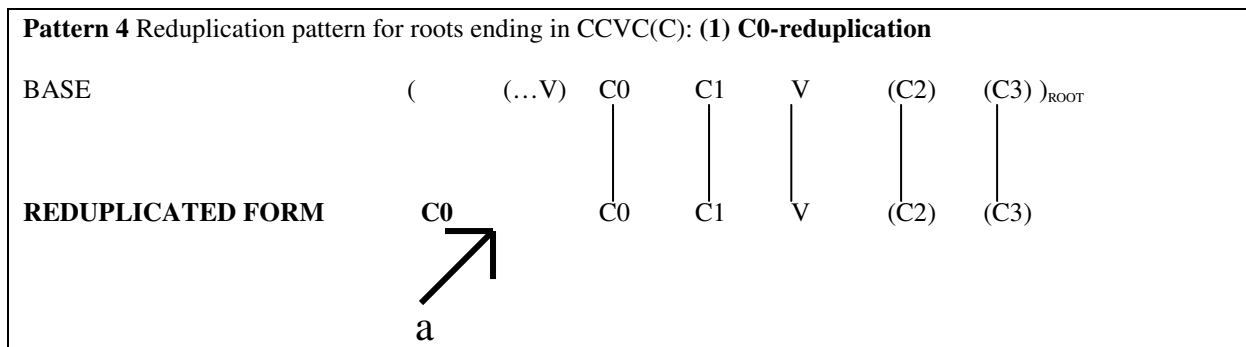
Table 12 Roots of the form CCVC(C) (2): **CaC**-reduplication

<i>kwán</i> 'long'	<i>kawánwán</i> 'length' [el]
<i>krof</i> 'stick'	<i>karafrof</i> 'sticking' [notebook]
<i>fron</i> 'clean'	<i>farandon</i> 'leaning' [el] ¹⁶
<i>fyer</i> 'dance'	<i>fayaryer</i> 'dancing' [el]
<i>mrán</i> 'walk'	<i>marandán</i> 'walking, journey'
<i>mnis</i> 'fit, similar'	<i>manasnis</i> 'similarity' [el]
<i>pdúk</i> 'beautiful'	<i>padakdúk</i> 'beauty' [el]
<i>snarm</i> 'smell'	<i>sanarnarm</i> 'smell' [el]
<i>syúf</i> 'cold'	<i>sayáfyúf</i> 'cold' [el]
<i>vrin</i> 'quiet'	<i>varandin</i> 'quietness' [el]
<i>pyum</i> 'good'	<i>payamyum</i> 'goodness'

The other, less frequently attested pattern, repeats the first consonant of the cluster and inserts an *a*. An example is the following:

skop 'kick' *saskop* 'kicking'

The pattern is presented here:



Examples of roots reduplicated according to this pattern are given in the following table.

¹⁶ /r/ is realized as [d] after nasals, cf. section 2.6.2.1

Table 13 Roots of the form CCVC(C) (1): C0-reduplication

<i>rwas</i> 'divide'	<u>rarwas</u> 'division'
<i>rvarn</i> 'mix'	<u>rarvarn</u> 'mixing'
<i>swar</i> 'love'	<u>saswar</u> 'love'
<i>dwer</i> 'change'	<u>dadwer</u> 'change' [el]
<i>skop</i> 'kick'	<u>saskop</u> 'kicking' [el]
<i>fakmak</i> 'examine'	<u>fakakmak</u> 'carefulness' [el]
<i>varyar</i> 'think of'	<u>vararyar</u> 'remembrance' [el]
<i>kafrok</i> 'strike hard'	<u>kafafrok</u> 'strike hard & repeatedly' [el]

Both in **Pattern 3** and in **Pattern 4**, the *a* is not part of the reduplicant in strict sense, as there is no vowel in the base with which the vowel corresponds. This is the reason why both **Pattern 3** and **Pattern 4** present this *a* apart from the reduplicant. In addition, this representation also illustrates the function of the *a*; with the addition of the *a* the creation of a new consonantal cluster (either C₀C₀ or C₀C₁) is avoided.¹⁷

Again some remarks need to be made with respect to the claim that the Biak language originally copied base-initial material and skipped prefixes. First, the use of **Pattern 3** can be seen as a reflection that C₀ was or is not considered part of the root. For many words, this seems indeed probable. The phonemes *m*, *f* and *k* in initial position can probably in most cases be traced back to the POC-prefixes **ma*-, **pa[ka]* and **ka*-, respectively, just as was suggested for *ma*-, *fa*- and *ka*- above. Indeed, all of the roots with an *m*-initial or *k*-initial cluster follow the Ca(C)-reduplication pattern, while this is also true for all the *f*-initial clusters except one: only *fnak* 'play' follows **Pattern 4**, and has *fafnak* as the reduplicated counterpart.

Turning now to the roots with another consonant as first member of the cluster, it appears that some of them are reduplicated according to **Pattern 3**, while others follow **Pattern 4**. This is not surprising. In my opinion, the existence of reduplication **Pattern 4** shows that in present-day Biak we find cluster-initial roots in which both members of the cluster are considered part of the root. The reduplication simply targets the first consonant of the root. Whereas reduplication pattern 3 originally reflects reduplication of the root and not the prefix, in present-day Biak it is simply another option for cluster-initial roots to choose from, irrespective of the question whether the first question is (originally) part of the root. This explains why we find several roots that can be inflected according to both **Pattern 3** and **Pattern 4**, without any apparent difference in meaning, like the following:

Table 14 Alternating patterns of reduplication, without difference in meaning

<i>sma(i)</i> 'get'	<u>sasmai</u> 'having' [el]	<u>samama</u> 'having' [el]
<i>kfo</i> 'shoot with arrow'	<u>kakfo</u> 'shooting' [el]	<u>kafakfo</u> 'shooting' [el]
<i>snai</i> 'shine'	<u>sasnai</u> 'shining, light' [el]	<u>sanana</u> 'shining, light'

For the majority of roots, however, only one of the two patterns is acceptable.

¹⁷ Consonantal clusters are indeed very rare in other than the last syllable of roots, except in personal pronominal prefixes. In fact, such clusters have been attested only in a number of reduplicated forms of verbs containing the prefix *far*-, described in 4.3.1.4. An example is given with *far-msaw(k)~sawk* 'totally torn' from *msawk* 'tear'.

7.3.4 Other patterns of partial reduplication

Whereas the great majority of reduplicated verbs can be described with the patterns presented above, there are a few exceptions. All of the attested exceptions found are presented in Table 15 below. The final two examples (*séwar*, *kára*) are some of the few examples of polysyllabic CV-initial words copying base-initial material.¹⁸

Table 15 Other reduplication patterns

<i>vak</i> 'pay'	<u>v</u> avyak 'payment' [e]
<i>pos</i> 'draw up'	<u>p</u> apyos 'drawing up' [e]
<i>fár</i> 'tell'	<u>f</u> a(r)fyár 'story'
<i>marsyor</i> 'heavy (for living beings)'	<u>m</u> arsyorsyor 'heaviness' [e]
<i>ve-oser</i> 'VBLZ-one'	<u>v</u> ave-oser 'unity'
<i>séwar</i> 'seek'	<u>s</u> aséwar 'seeking'
<i>kára</i> 'think'	<u>k</u> akára 'thinking'

The corpus contains a few examples of double Ca(C)-reduplication, like the following:

- (17) *idafdafdúfe*
 i-daf~daf~dúf
 3SG-RED~RED~ill
 'He is ill all the time.' [e]

7.3.5 Concluding generalization

Generalising over the patterns of (a)Ca(C)-reduplication, the following can be concluded. In all cases, (except in the case of *séwar* 'seek' – *saséwar* and *kára* 'think' – *kakara*) root-final material (which may coincide with the entire root) is taken as the basis for reduplication. The reduplicant is placed directly before the base and has the form aC for vowel-initial bases (**Pattern 1**), and Ca(C) for consonant-initial bases (**Pattern 2** through **Pattern 3**). The reduplicant has an extra initial *a* when the reduplication would lead to a consonantal cluster in other than the final syllable of the word, or to the formation of a triconsonantal cluster (in the case of **Pattern 4**).

7.4 Partial reduplication: function

According to Blust (1998), in proto-Austronesian Ca-reduplication had the function to form Instrument-nouns from verbs. In present Biak, however, reduplication has quite a different function, although an occasional example of Instrument-noun formation can be attested. On the one hand, Biak reduplication forms nouns. These usually refer to the Event as such, but in some cases express the Patient or an Instrument related to the Event. On the other hand, Biak reduplication forms verbs with iterative or durative meaning, some of which are also less transitive than their non-reduplicated counterparts. While section 7.4.1 focuses on nominalization, 7.4.2 is concerned with reduplicated verbs that function as durative-iterative verbs.

¹⁸ Strikingly, both of these verbs have a long vowel in the reduplicated syllable. Not all verbs with a long vowel in the first syllable show reduplication of base-initial material, however, as is clear from the reduplication pattern of *sápi* which has *sápapi* as its reduplicated counterpart (and not *sásapi*).

7.4.1 Nominalization

One of the main functions of reduplication in Biak is to form nouns from verbs. While section 7.4.1.1 shows that the reduplicated forms are nouns, sections 7.4.1.2 and 7.4.1.3 pay attention to the nominalizations' semantics, the former dealing with Event nominalizations, the latter with nominalizations referring to Instruments and results.

7.4.1.1 Nominal features of nominalizations

In Chapter 3 on Word Classes, the following three criteria were given to distinguish nouns from members of other lexical categories.

- 1) Nouns typically appear as (head of an) argument of a predicate.
- 2) Nouns can appear as (head of the) complement of a preposition.
- 3) As the head of the noun phrase, the noun may be modified by a relative clause.

In the corpus, reduplicated verbs appear to obey all of the three mentioned criteria, which shows that they can be considered nouns. In example (18) through (21) we see the nominalized forms used as direct arguments of the predicate. Sentence (18) and (19) illustrate the use as subject, while in (20) and (21) the reduplicated verbs are used as objects. Note that in the examples (18) through (20) the verbs are also modified by *adnominal* markers (*i-ne* '3SG.SPC-this' and =*ya* '3SG.SPC').

- (18) *Makakakya* *ifrúr* *si* *fa* *simkák*
 m~aka~kak =ya i-frúr si fa si-mkák
 ~RED~fear=3SG.SPC 3SG-make 3PL.ANIM CONS 3PL.AN-fear
- vo sibur ra sro vondi.*
 vo si-bur ra s-ro von-ri
 SIM 3PL.AN-leave until 3PL.AN-LOC side-out
 'Fear made that they were afraid and left until they were outside.' [TWfw]

- (19) *Rarvarn ine iba mankenem.*
 ra~rvarn i-ne i-ba mankenm
 RED~mix 3SG.SPC-this 3SG-big very
 'This **mixing** (of culture) has been very big.' [ALaj]

- (20) *Manserni, eyúf kankenm ine.*
 Mansern=i ey-úf kan~kenm i-ne
 Lord=3SG REL- pick.up RED~live 3SG.SPC-this
 'The Lord, who has guided this **life**.' [DAab]

- (21) *Isofro naser wawóse,*
 isofro na-ser wa~wós
 until 3PL.INAN-contain RED-talk
- oro fa ro kawasa ero dine.*
 oro fa ro kawasa e-ro di-ne
 thing to.there LOC people REL-LOC place-this
 'Until it contains **talking**, something for people here (to gossip about.)' [ALcb]

Nominalizations are also found as object of a preposition, as in the following two sentences:

- (22) *Sákfawi* *ra* *fawawi*
 s-ák-fawi ra fa~wa~wi
 3PL.AN-also-know along ~RED~know

ero *babo* *inenna* *kada, (...)*
 e-ro babo i-ne=n=na kada
 REL-LOC new 3SG.SPC-this=SEP=3PL.INAN suppose.that
 'If they had known according to the **knowledge** of nowadays, (...)' [ALdc]

- (23) *Na* *rosai* *ero* *varpur* *inemana*
 na rosai ero var-pur i-ne-ma=na
 then what REL-LOC side -back 3SG.SPC-this-to.here=3PL.INAN.SPC

insape **bisa** *namrán* *kukr* *payamyum.*
 insape bisa na-mrán kukr p~ayam~yum
 then can 3PL.INAN-walk with ~RED~good
 'Then the things that will come after this will then run **smoothly**' (lit. 'with **goodness**').
 [BVda]

Note that in (22) above the nominalized verb *fawawi* 'knowledge' is modified by a relative clause. This is also the case in (24) below.

- (24) *Sarawrow* *vevye.*
 s~araw~row ve-vye
 ~RED~meet REL-good
 'Good **meeting**' / 'Welcome.' [MSag]

7.4.1.2 Nominalizations referring to the Event

Virtually all nominalized verbs can be used to refer to the property, state or action expressed by the root. I will refer to these reduplicated verbs as nominalizations referring to the Event, or Event-nominalizations. Examples are given in the following sentences.

- (25) (...) *ro* *ras* *ve* *ras,* *nana,* *farvakvuk,*
 ro ras ve ras na~na far-vak~vuk
 LOC day to day RED~have FAR-RED~marry

ma *roi* *vese.*
 ma roi vese
 and thing other

'(I tell about) the things of every day, possessions, **marrying**, and other things.' [ALac]

- (26) *Rasros* *vyena* *nsamrav.*
 ras~ros v<y>e=na n-samrav
 RED~kick <3SG>POS=3PL.INAN.SPC 3.PL.INAN-strong
 'His **kicks** are strong.' [FG]

- (27) (**...**) **sambutan** *vaido* **wawós** *ayena*
 sambutan *vaido* *wa~wós* *aye=na*
 speech or RED~talk 1SG.POS=3PL.INAN.SPC

*veve***wakili** **marga** *Krei (...)*
 ve-ve-wakili *marga* *Krei*
 REL-VBLZ-represent clan *Krei*
 '(...) my speech or **talking**, which represents the clan Krei (...)' [DAay]

Some of these nominalizations also have a more specific meaning, like the word *kankón* 'meeting', which is the reduplicated form of *kón* 'sit':

- (28) *skove***atur** **kankón** *ine.*
 sko-ve-**atur** *kan~kón* *i-ne*
 3PC-VBLZ-arrange RED~sit 3SG.SPC-this
 'They arranged this **meeting**.' [VYbg]

Event nominalizations can be used in possessive expressions. As such, they fill the position that is usually reserved for the possessum. The possessive pronominal corresponds to the 'subject' of the event: it refers to the participant that would be expressed as the grammatical subject in a corresponding verbal expression. Thus, in (29), the possessive pronominal expresses that the 'subject' of the hearing event is 2PL. (At the same time, the plural suffix =na expresses that we have to do with multiple instances of hearing.). The possessive pronominal cannot correspond to the object of the event, so that free translation b) below is not possible.

- (29) **Terima-kasih** *fa* *royo* **rawrowr** **mkovena.**
 terima-kasih *fa* *ro=yo* *raw~rowr* *mko-ve=na*
 thank.you to.there LOC=O RED~listen 2PL-POS=3PL.INAN
 POSSESSUM = EVENT POSS. PRONOMINAL
 ~SUBJECT

- a) 'Thanks for **your listening**.' [VYcu]
 b) * 'Thanks for the listening to you.'

Another example of a possessive pronominal corresponding to a subject is given with *inkovedine* in (30) below.

- (30) **marandan** *inkovedine*
 m~aran~rán *inko-ve=d-i-ne*
 ~RED~walk 1PL.EX-POS=3SG-SPC-this
 POSSESSUM =EVENT POSS. PRONOMINAL~SUBJECT
 'this our **journey**' (lit. 'walking') [BVaa]

I found only one example of a possessive expression with reduplicated verb as possessum in which the possessor-subject was not only expressed by a possessive pronominal, but also by an overt noun phrase. The example is given in (31), where the noun phrase *si=ya* '3PL.AN=SPC' -> 'others' and the first part of *se=na* '3PL.AN.POS=3PL.INAN.SPC' both correspond to the subject of a possible corresponding verbal expression.

- (31) (...) *eyákor* *mura* *ro* *siya*
 ey-ákor mu-ra ro si-ya
 REL-reckon.with PATH-to.o.there LOC 3PL.AN-SPC
 POSSESSOR~SUBJECT
- samamrav* *sena* *va.*
s~ama~mrav se=na *va*
 ~RED~strong 3.PL.AN.POS=3PL.INAN.SPC not
 EVENT POSS. PRONOMINAL~SUBJECT
 '(... people) who do not reckon with other people's strength.' [CPaz]

The noun phrase corresponding to the object is placed in the position directly following the nominalized verb. Thus, in (32), the noun *saprop* 'soil' refers to what would be expressed as an object in a corresponding verbal construction (*s-na saprop* '3PL.AN-have land' -> 'they have land').

- (32) *nana* *saprop*
 na~na saprop
 RED~possess soil
 'the possession of land' [ALac]

In (33) below, *saséwar mankroder* 'the seeking of the frog' corresponds to the object of *far* 'tell' (in other words: this is what is told about). *Mankroder* 'frog' corresponds to the object of *séwar* 'seek': it is the frog that is sought after.

- (33) *Farfyár* *sa~séwar* *mankroder.*
 RED.far sa~séwar mankroder
 RED.tell RED~seek frog
 'The story of the search after the frog.' [FFaa]

In (34), finally, the noun phrase *tiket awin vyedyá* 'mother's ticket' corresponds to the object of *vak* 'pay': it is the ticket that is paid.

- (34) *Yafarem* *pipi* *vavyák* [**tiket** *awin* *vyedyá*]_{NP}
 ya-farem pipi RED.vák tiket awin v<y>e=d-ya
 1SG-send money RED.pay ticket mother <3SG>POS=3SG-SPC
- ve Menado.*
 ve Menado
 to Menado
 'I sent the money for the payment of mother's ticket to Menado.' [REaq]

Considering possibilities for expression of the 'subject' in other than possessive constructions, it should be noted that the corpus contains a handful of examples where the 'subject' is expressed by a prepositional phrase headed by *ro*. Two examples are the following: *ra~ra ma ve-ve-suru ro Yesus Kristus* 'go-go to.here LOC Yesus Kristus' -> 'Jesus Christ's second coming' and *far~kan~kin ro Mansern=i* '~RED~guide LOC Lord=3SG' -> 'the guidance of the Lord.'

7.4.1.3 Nominalizations referring to Patient or Instrument

While most nominalizations are event nominalizations, described in the preceding section, some nominalizations refer to the Patient of an Event, or to a related Instrument. Examples of Patient nominalizations are *fasfas* 'writing', also (as in English) used for 'that which is written', or *aninf*, which is used for 'that which is spit'. Both of these nouns can be seen as 'effective objects', referring to something that is produced as the result of an action (cf. Næss 2003:54).

- (35) *Evesnon* *ine* *vyark* *ra*
 e-ve-snon i-ne v<y>ark ra
 REL-VBLZ-male 3SG.SPC-this <3SG>stay until

ive *fyas* *fasfaso*.
 i-ve f<y>as fas~fas=o
 3SG-want <3SG>write RED~write=nonSP.SG

'The male one (of husband and wife) stays until he will write a writing.' [ALad]

- (36) *Simrán* *saninf* *ro* *sámpak* *vo*
 si-mrán s-an~inf ro sámpak vo
 3PL.AN-walk 3PL.AN-RED~spit LOC road SIM

kárarf *ro* *aninf* *sena*.
 k^h-ar~arf ro an~inf se=na
 1PL.INC-RED~step.on LOC RED~spit 3.PL.AN.POS=3PL.INAN.SPC

'They use to walk on the road and spit, and we have been stepping in their spit.' [BVaf]

Other examples of Patient nominalizations are *sansun* 'clothes', from the verb *sun* 'enter', 'put on <clothes>', *saswo* for 'hat', which is the reduplicated form of *swo* 'carry as hat' and *vavovk* for 'belt', reduplicated form of *vovk* = 'tie (a belt)'.

A rare example of a nominalization forming an **instrument**-noun is *kamkam* for 'hammer', reduplicated form of the verb *kam* = 'hammer' (v).

7.4.2 Reduplicated verbs functioning as verbs

While 7.4.1 discussed the distribution and function of reduplication forming nouns, this section is concerned with reduplicated verbs that still function as verbs. Universally it is very usual for reduplicated verbs to express repeated activity or ongoing activity and similar concepts, and so it is in many Austronesian languages (Adelaar and Himmelmann 2005:121). Whereas these functions are usually associated with full base reduplication, the Biak language is a little exceptional in that it uses partial reduplication for these functions.

The function of Biak partial verbal reduplication resulting in verbs is best described as iterative / durative. This function will be illustrated in section 7.4.2.1. A limited group of verbs has an iterative interpretation only in combination with an explicit object, and has a durative interpretation in other contexts. These verbs will be the topic of section 7.4.2.2.

7.4.2.1 Iterativity and durativity

The following sentences illustrate reduplicated verbs having an iterative interpretation. Example (37) is about the morning star that sits down on a tree, and jumps while sitting on its heels. Sentence (38) is part of an adhortative discourse, in which the speaker insists that

he wants to come back again and again to the point that has just been made. In (39), *s~araw~rew* refers to an 'iterative turning', freely translated as 'zigzagging', while in (40) it is clear that the 'picking' refers to an iterative or habitual picking.

- (37) *Kyain* ***dapopr.***
 k<y>ain d-ap~opr
 <3SG>sit 3SG-RED~jump
 'He sat jumping.' [MSmo]
- (38) *Nkokavkavr* *monda* *i.*
 nko-kav~kavr monda i
 1PL.EX-RED~return just 3SG
 'We come back to it again and again.' [VYef]
- (39) *Iswamre*
 is-wa-m-re
 3SG.PRED-over.there-to.here-land
- ifrar* ***i-s~araw~rew*** *mreyo (...)*
 i-frar i-s~araw~rew m=re=yo
 3SG-run 3SG~~RED~turn to.here=land=O
 'He was there coming landwards, and ran and zig-zagged landwards (...)' [MSdo]
- (40) *Mankoko* *sine* *ma* *simrán* ***sikafkif***
 man-koko s-i-ne ma si-mrán si-kaf~kif
 bird-chicken 3PL.AN-SPC-this TOP 3PL.AN-walk 3PL.AN-RED~pick
- ker* *ro* *saprop.*
 ker ro saprop
 continually LOC soil
 'These chickens they walk picking on the ground.' [MIda]

Note that in three of the four examples above, the reduplicated verb follows a verb of position (*kain* 'sit' in (37)) or movement (*frar* 'run' in (39) and *mrán* 'walk' in (40)). As described in 4.3.2, this sequence of motion/positional verbs plus another inflected verb is typical for durative / iterative interpretation.

This sense of iterativity is also found in the reduplication of verbal particles or second parts of serial verbs, which can be seen as a strong indication of their rather strong unity with the verb. Examples are given in (41) and (42).

- (41) *Kopok* *fa* *kárvai* ***dafdofn*** *va.*
 ko-pok fa k^u-árvai daf~dofn va
 1PL.INC-can CONS 1PL.INC-pass RED~pass.over not
 'We cannot pass over them.' [AScx]
- (42) *Snon* *ine* *kyam* ***dawdiwr*** ***wortelsya.***
 snon i-ne k<y>am daw~diwr wortel=s-ya
 male 3SG.SPC-this <3SG>hammer RED~shatter carrot=3PL.ANIM-SPC
 'This man is hammering the carrots into many pieces.' [CB_P_21]

The following sentences have a habitual interpretation.

(43) *Imakakáke.*

i-m~aka~kák
3SG~~RED~fear
'He is a coward.' [eI]

(44) *Indya fafyár ine sfár i fa ro*
indya fár.RED i-ne s-fár i to.there ro
so tell 3SG.SPC-this 3PL.AN-tell 3SG to LOC

snonkaku eyárarer vo eyóve
snonkaku ey-á~ra~rer vo ey-óve
human.being REL~~RED~proud SIM REL-say

eyákor mura ro
ey-ákor mu-ra ro
REL-reckon.with PATH-to.o.there LOC

siya samamrav sena va.
si-ya s~ama~mrav se=na va
3PL.AN-SPC ~RED~strong 3.PL.AN.POS=3PL.INAN.SPC not

'So they tell this story to people who are (**always**) **proud** and who think not to have to reckon with other people's strength.' [CPaz]

In some cases, reduplicated verbs have a reciprocal interpretation, as in the following example, given as the description of a photograph. Reciprocal interpretations can be seen as reflecting the multiplicity of subjects, which can be seen as a special instance of the multiplicity of events, which usually leads to an iterative interpretation.

(45) *Batawe fyór ri fik skovark*
batawe fyór ri fik sko-vark
cassava piece NUM.LNK seven 3PC –lie

fa skokápakpok.
fa sko-ká~pak~pok
CONS 3PC~RED~carry.on.back

'These seven cassavas lean to each other' (lit. 'carry each other on their backs'). [OP51]

According to one of my informants, for some verbs the reciprocal interpretation goes along with a shift in stress pattern.¹⁹ Two minimally contrasting pairs are given in (46) and (47).

¹⁹ As described in the Introduction to this thesis, I gave all my data a final check with one informant, Chris Padwa, who lives in Biak town and visited me for three months. It was he who suggested this difference of interpretation correlating with a shift in stress. Confirmation from speakers of the Wardo dialect is needed, however, to check whether his intuition is shared by speakers of this dialect.

- | | | | |
|----------|--------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------|
| (46) a | <i>Surakrok.</i>
[surak'rok]
su-rak~rok
3DU-RED~make.noise
'The two make noise' [el] | b | <i>Surakrok.</i>
[su'rakrok]
su-rak~rok
3DU-RED~make.noise
'The two dispute each other' [el] |
|----------|--------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------|

The word *ris* in (47) below refers to a kind of combing hair, using a bamboo comb. The b-example is very 'impolite' and has a strong sexual connotation.

- | | | | |
|----------|---------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------|
| (47) a | <i>Surasris.</i>
[suras'ris]
su-ras~ris
3DU-RED~comb
'The two are combing their hair.' [el] | b | <i>Surasris.</i>
[su'rasris]
su-ras~ris
3DU-RED~comb
'The two are combing each other.' [el] |
|----------|---------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------|

Reduplication may also have a mitigating function. A mitigating function was not found in spontaneous discourse, but given in elicitation as the function of reduplication for color terms and for a number of verbs, most of which express adjectival notions. It implies the possession of characteristics of the root to a certain degree. Thus the reduplicated form of *prei* 'healthy' would be attributed to a person who is recovering from an illness, but has not recovered totally yet, while the reduplicated form of *snarm* 'smell' would be attributed to a fish which is in the process of starting to stink. A comparable mitigating function was given for *pokm* 'fall apart', *pakrek* 'hard (not soft)', *pyan* 'easy', *sak* 'shiny', *sevn* 'be.open'.

7.4.2.2 Decrease in transitivity correlating with decrease in iterativity

One group of verbs stands out from the rest, both in their syntactic behavior and in their semantics. Syntactically, the non-reduplicated verbs that are part of this group are all transitive; they can occur with an object, and if there is none, the object is clear from the context. They do, in other words, allow for context-dependent object elision, but not for context-independent object elision (cf. section 4.2.3.1). They cannot be used without an object 'out of the blue', for example as answer to the question *rosai ifrúri* 'what is he doing?' The following examples, then, are inappropriate answers to this question.

- (48) **ifrúre.*
 i-frúr
 3SG-make
 'He is making.' [el]

- (49) **dan*
 d-an
 3SG-eat
 'He is eating.' [el]

Their reduplicated counterparts are much more like intransitives, however, in that it is perfectly possible to use them 'out of the blue' as answer to the question given above:²⁰

²⁰ The relation between reduplication and a decrease in transitivity was also noticed by Van Hasselt (1905:8). He writes (note that he uses *j* for /y/): "pāp b.v. is waschen, maar in dezen vorm eischt het een voorwerp, dat gewassen wordt, b.v. i pāp sānsun (zij wascht klederen), jas is slijpen, i jas sumber (hij slijpt een hakmes). Bepaalt men echter den afloop niet van het wassen en is het slijpen niet beperkt tot een hakmes, dan zegt men i

(50) *Ifararúre.*
i-f~ara~rúr
3SG~RED~make
'He is working.' [el]

(51) *Danan.*
d-an~an
3SG~RED~eat
'He is eating.' [el]

Semantically, the reduplicated verbs refer to inherently durative actions, where the focus is on the ongoing action, rather than on the affect of the action on a Patient. The following table lists a number of verbs belonging to this group.

Table 16 Transitive verbs and reduplicated variants that refer to inherently durative actions

<i>fas</i> 'write <X>'	<i>fasfas</i> 'write'
<i>frúr</i> 'make <X>'	<i>fararúr</i> 'work'
<i>pap</i> 'wash <X>'	<i>papap</i> 'do the washing'
<i>as</i> 'swim for <X>'	<i>asas</i> 'swim for fish'
<i>kun</i> 'burn, prepare <X>'	<i>kankun</i> 'prepare food'
<i>kovs</i> 'buy <X>'	<i>kavkovs</i> 'do the shopping' (el)
<i>séwar</i> 'seek <X>'	<i>saséwar</i> 'search for food' (el)
<i>kar</i> 'break <X>'	<i>kakar</i> 'hammer sago'
<i>pinyan</i> 'use bag to catch <X>' (el)	<i>pinanyan</i> 'go out fishing with a bag'
<i>vakn</i> 'pull loose <X>'	<i>vakvakn</i> 'catching fish using a bag and taking away stones at the shore, below which they are hiding' (el)
<i>kekf</i> 'use nylon to catch <X>'	<i>kakekf</i> 'catch fish with nylon'
<i>wan</i> 'stab <X>'	<i>wanwan</i> 'fish using a fish spear' (el)
<i>so</i> 'throw <X>'	<i>saso</i> 'search for k.o. snails using iron stick' (el)
<i>sos</i> 'peck' (el)	<i>sasos</i> 'catch fish using drugs' (el)
<i>kér</i> 'plant <X>' (X= Theme or Location, cf. 4.2.5)	<i>kakér</i> 'plant the land'
<i>om</i> 'clear away <X>, cut through <X>'	<i>amom</i> 'clean the land'

With respect to (the relation between) the verbs' syntax and their semantics, the following should be noted. First, whereas the meaning of the reduplicated form is predictable for a number of verbs, like *fas* 'write' and *frúr* 'make', for most verbs the reduplicated form has a specialized meaning. In the latter case, the verb at a conceptual level has a sort of default object, which however is not expressed syntactically. Thus, the reduplicated form *saséwar* 'seek for food', does not refer to seeking of things in general, but to the seeking for **food**, while *wanwan* refers to the seeking for **fish**, with the use of a special instrument. Second, although the reduplicated forms are normally used without an object, they do allow for the expression of an object. (In fact, the corpus of spontaneous speech contains no examples of the verbs in question being used with an object, but all of the verbs allowed for it in elicitation.) However, when used with an explicit object, the verbs have an iterative / habitual reading, rather than a

pāp pāp (ze is aan 't wasschen), kamari i jas jas (mijn vader is aan 't slijpen)". My translation: "pāp is washing, but in this form it requires an object being washed, e.g. *i pāp sānsun* (she washes clothes), *jas* is sharpening, *i jas sumber* (he sharpens a chopping knife). If, however, one does not determine the endpoint of washing, and if the sharpening is not restricted to sharpening a chopping knife, then one says *i pāp pāp* (she is washing), *kamari i jas jas* (my father is sharpening).

- (57) *Skamom* *ro* *diwa*.
 sk^h-am~om ro di-wa
 3PC-RED~cut.through LOC place-over.there
 'They are **preparing a garden** over there.' [ATaa]
- (58) *Kalau* *emrán* *ra* *vandesya* *ido*, *simrán*
 kalau e-mrán ra van-re=s-ya ido si-mrán
 when REL-walk along area-land=3PL.AN-SPC THEM 3PL.AN-walk
- spinanyan* *svakn* *karui* *nane*,
 s-pi~na~nyan s-vakn karui na-ne
 3PL.AN-~RED~use.basket.to.catch 3PL.AN-pull.loose stone 3PL.INAN.SPC-this
- sfor* *ínmáwa-mkun* *ro* ...
 s-for ín-máwa-mkun ro
 3PL.AN-catch fish-small-little LOC
- ero* *karui-andír* *nawarpon*.
 e-ro karui-andír na-wa-r-pon
 REL-LOC stone-side 3PL.INAN.SPC-over.there-to.o.there-front
 'As for those that walk at the shore, they walk and search for fish with a basket, they pull loose these stones, they catch small fish at the sides of the stones, further eastwards.' [WSah]

The verbs that inherently refer to durative contexts can also be used for the expression of iterative events, as in the following example:

- (59) *Fararúr* *suvedya* *sufararúr* *ro* *yáfe*,
 f~ara~rúr su-ve=d-ya su-f~ara~rúr ro yáf
 ~RED~make 3DU-POS=3SG-SPC 3DU-~RED~make LOC garden
- suyamom*, *sukakére* (...)
 suy-am~om su-ka~kér
 3DU-RED~cut.through 3DU-RED~plant
 'The work of the two of them, they used to work in the garden, they prepared gardens, they planted the land (...)' [HKab]

7.5 Ci(C)-reduplication

The corpus contains a few cases of what could be called Ci(C)-reduplication. The following table lists the attested forms and their non-reduplicated counterparts:

Table 17 Ci-reduplication; reduplicated forms and their non-reduplicated counterparts

<i>ve-sisye</i> 'VBLZ-apart'	<i>ve-se</i> 'VBLZ-different'
<i>ve-fisfyas</i> 'VBLZ-go.up.and.down'	<i>f-yás</i> 'to.there-up' (cf. section 9.4.1, 9.5.2)
<i>pipyark</i> 'curled up'	<i>park</i> 'curled up'
<i>sifsyóf</i> 'mutually passing'	<i>syóf</i> 'pass'

8 CLAUSE STRUCTURE AND GRAMMATICAL RELATIONS

8.1 Introduction

A clause can be defined as a morphosyntactic unit that contains minimally a main predicate and its argument structure. As such, the clause is the conventionalized linguistic instantiation of a proposition (cf. Payne 1997:71, note 1). Structurally, the predicate is at the heart of the clause; it governs both the type and number of arguments that it can appear with. In the Biak language, both verbs, nouns and locative-existentials can be predicators (i.e. heads of a predicate). Verbal clauses are illustrated by the two clauses *Indya dék* 'so he went up' and *denf ro aividwóme* 'he slept in the upper part of the tree' in (1), which are linked by the conjunction *ra*.

- (1) *Indya dék ra denf ro aividwóme (...)*
indya d-ek ra d-enf ro ai-vidwóm
so 3SG-go.up until 3SG-sleep LOC wood-upper.part
'So he went up and slept in the upper part of a tree (...)' [MIbu]

Most nominal clauses are formed by the use of a copula that links a predicate-NP or pronoun and a subject-NP or pronoun. This copula manifests itself either as *iso*, or as a shorter form *is~i* linked to a following pronoun (or complex article). An example of the use of *iso* is given with (2), while the use of *is+pronoun* is exemplified in (3).

- (2) **Guru Marisan iso ine.**
guru Marisan is-o i-ne
guru Marisan 3SG.PRED-O 3SG.SPC-this
'This is teacher Marisan.' [BVam]

- (3) *Aya ma innows riisaya indya (...)*
aya ma in-nows ri=is-aya indya
1SG TOP fish-<k.o.fish> GEN.SG=3SG.PRED-1SG so
'As for me, I am an *innows*-fish, so (...)' [SWak]

An example of a locative-existential predicate, finally, is given with *koisne* 'we are here' in (4). Note that the locative-existential also contains the copula *is* that is used in the formation of nominal clauses:

- (4) *Koisne kaker.*
ko-is-ne kaker
1PL.INC-PRED-this still
'We are still here.' [VYfa]

Following an intermezzo on sentences, utterances and clauses, section 8.3 discusses the syntax of verbal clauses, and also pays attention to the expression of the grammatical roles subject, object and a number of semantic roles. Attention will also be given to the distinction between clausal elements and elements that are part of the frame that precedes the clause. While section 8.4 discusses (the rather marginal) nominal clauses consisting of a single noun phrase only, 8.5 discusses nominal clauses based on the copula *is*. Finally, section 8.6 discusses locative-existential predicates.

8.2 Sentences, utterances and clauses

In descriptions of spoken language, it is often somewhat problematic to determine what should be the basic unit of description. In the present description, a main distinction is made between sentences on the one hand and clauses on the other hand, while the term 'utterance' is also used occasionally. Sentences are defined as bounded by their final intonation contour, and may contain both clausal and non-clausal material, but minimally one clause.¹ Sequences of sentences are virtually always separated by pauses. The term 'utterance' has a broader use than that of 'sentence' and covers all constructions that are uttered. Unlike sentences, utterances may even lack a clause, as is the case for an utterance like *imbo* 'indeed'. This chapter focuses on single clauses, while Chapter 10 will pay attention to the way in which both clausal and non-clausal material combine to form a sentence.

Whereas this chapter is primarily concerned with the description of clause structure, it cannot be described in total isolation from other elements making up a sentence. One concept that needs to be mentioned here is that of the frame. Frame constructions are those constructions in which either clausal or non-clausal intonational phrases precede the main clause to provide a background against which this clause needs to be understood. They may consist of single adverbs, of nominal or prepositional phrases, but often they are clausal (, for which reason they get more elaborate attention in Chapter 10 on clause combinations.) The frame gives the framework within which the main clause is to be interpreted.² The constituent structure and pragmatic function of the frame with relation to the clause is presented in Figure 1.

Figure 1 Frame and main clause (the asterisk (*) should be read as: zero or more times one of the preceding constituents)

<i>constituents</i>	[adverb/NP/PP/clause]* ,	main clause
<i>pragmatic function</i>	frame,	interpreted within the framework provided by the frame

An example of an NP forming the frame for the main clause is given with *kenm ero mnuna* 'the life in this village' in the following sentence.

(5)	<i>Indya,</i>	<i>kenm</i>	<i>ero</i>	<i>mnuna,</i>	<i>sifúr</i>	<i>wor</i>
	indya	kenm	e-ro	mnu=na	si-fúr	wor
	so	life	REL-LOC	village=3PL.INAN.SPC	3PL.AN-make	dance

nane (...)

na-ne

3PL.INAN.SPC-this

'So, life in this village, they make this dance-feast (...)' [AAah]

¹ As described in 2.5.7, the default final intonation contour is falling. Differences in illocutionary force may go along with differences in (final) intonation patterns. Thus, section 3.11 gives intonation patterns for questions and for sentences closed off with a marker of doubt.

² The notion of 'frame' as used in this thesis has been inspired by the way in which Van Staden uses the term in her thesis on the Tidore language (Van Staden 2000: 208, 271v.) and by the discussion by Simon Dik on extraclausal constituents (Dik 1997b: 379f., especially 387f on Orientation).

8.3 Verbal clauses

As defined above, a clause consists of the predicate and its arguments. As will be explained later on, there are good reasons to consider the subject and object as the core arguments of the clause. The core of a verbal clause, then, consists of a verb expressing the predicate, the subject expressed by the subject marker on the verb, and an object following the verb. The Biak language can thus be defined as a strict SVO language. The core of the clause is given in the following figure:

Figure 2 The core of the Biak verbal clause
Round brackets indicate optionality

<i>constituents:</i>	[SM- +	V	(NP)] _{Core}
<i>semantic function</i>	S/A	Pred	Undergoer
<i>grammatical function</i>	Subj	Pred	Object

A minimal Biak clause, then, consists of an intransitive verb only, which is obligatorily marked for person, number and gender of the subject. An example of a series of minimal clauses is given with (6) below.

(6)	<i>Dopr</i>	<i>fa</i>	<i>syáe</i>	<i>fa</i>	<i>ibur.</i>
	d-opr	fa	s<y>áe	fa	i-bur
	3SG-jump	CONS	<3SG>go.out	CONS	3SG-leave
<i>c-str</i>	SM-V		<SM>V		SM-V
<i>sem</i>	S-Pred		<S>Pred		S-Pred
<i>gr-fun</i>	Subj-Pred		<Subj>Pred		Subj-Pred
	'It (the frog) had jumped so that it had got out (of the bottle) and left.' [FPah]				

Examples of minimal transitive clauses are given with (7) and (8), where (7) exemplifies the use of a full NP and (8) the use of a free pronoun as object

(7)	<i>Suna</i>	<i>romámkun</i>	<i>eser.</i>
	su-na	romá-mkun	eser
	3DU-have	child-little	one
	'The two had a little child.' [HKab]		

(8)	<i>Indya</i>	<i>dór</i>	<i>i.</i>
	indya	d-ór	i
	so	3SG-call	3SG
	'So he called him.' [PMad]		

The core of the clause can be preceded by an element in the so-called P1 position, and followed by what I will term the extension of the clause. The combination of preclause, clause core and extension will be referred to as 'the extended clause'. Adverbs and interjections are possible at various positions in the clause, more on which can be found in 3.7. The structure of the extended verbal clause is given in Figure 3.

Figure 3 Structure of the Biak verbal clause.

Round brackets indicate optionality, the square brackets indicate the boundary of the core, while the asterisk indicates zero or more instances of the constituent to which it is attached.

	P1	CORE			EXTENSION
<i>constituents</i> :	(NP)	[SM- +	V	(NP)] ^{core}	(PP)*
<i>semantic function</i>					
		S/A	Pred	Undergoer	Beneficiary / recipient, locative, comitative (etc.)
<i>grammatical function</i>					
		Subj	Pred	Object	
<i>pragmatic function</i>	topic				

Considering the extension, examples of clauses containing more than one postverbal phrase are few. The following, however, is an example, given as description of a film scene:

- (9) *Isoso kukr kaderaya bur mejaya.*
 i-soso kukr kadera=ya bur meja=ya
 3SG-move with chair=3SG.SPC from table=3SG.SPC
*c-str*³ SM-V []_{PP} []_{PP}
s-fn S-Pred comitative locative
gr-fn Subj-Pred
 'He moved with his chair from the table.' [CB_J_07]

The preverbal NP is a *sentential* topic and expresses what the sentence is about. The majority of noun phrases occupying the preverbal topic position are coreferential with the subject of the verb, as in the following example, where both the noun phrase *rusa nanine* 'this deer' and the subject marker *d-* '3SG' are marked for 3SG.

- (10) **Rusa nanine** *dores.*
 rusa_i an-i-ne d_i-ores
 deer GIV-3SG.SPC-this 3SG-stand
c-str []_{NPI} SM_i-V
gr-fn Subj-Pred
pr-fn topic
 'This deer stood still.' [FYcy]

In fact, when a Biak speaker needs a noun phrase to make the identity of the subject overt, this noun phrase is virtually always placed directly before the verb, and usually forms one intonational phrase with the following verb. I have found no instances of postverbal NP's coreferential with the subject of the verb, except in cases where the subject coincides with the object or with another, semantic, role (as in *d-ors mankundi* '3SG-stand LOC himself' -> it stands by itself).⁴ The preverbal NP, then, is in an appositional relation to the subject, which

³ In this and the following example *c-str* should be read as 'c-structure', *gr-fn* as 'grammatical function' and *pr-fn* as pragmatic function.

⁴ For a discussion on reflexivity and reciprocity see section 3.2.5.

is expressed by the SM-marker. Throughout this thesis, for ease of description I will refer to this NP as 'the full-NP subject'. Full pronouns are not allowed in preverbal position, unless they are separated by an intonational break, in which case they should be considered as part of the frame. This is illustrated by *aya* '1SG' in the following example, taken from the introduction part of a narrative on the earthquake that struck Biak in 1996. The narrator has just announced that he wants to tell about the earthquake, and now focuses on his own situation at the time of the earthquake:

- (11) *Fafisuya* *aya,* *yaroro* *iso* *Jayapura.*
 fafisu=ya aya ya-roro is-o Jayapura
 time-3SG.SPC 1SG 1SG-LOC 3SG.PRED-O Jayapura
 'At that time, I, I was at (it is) ... Jayapura.' [GSac]

An example like the following, however, where the pronoun and the verb are not separated by a pause, is unacceptable:

- (12)* *I* *dores.*
 i *d-ores*
 3SG 3SG-stand
 'He stood (still).' [e]

Although the majority of clause-internal preverbal noun phrases are coreferential with the subject, the language also allows for objects to be topicalized. In that case, the object is placed in preverbal position, while the language usually also has a resumptive object pronoun in the object position. An example of a preverbal Object is given with *aiknam anine* 'this tree' in (13) below, corresponding to the resumptive pronoun *i* '3SG'.

- (13) *Insape,* *aiknam* *anine* *nkokar* *i.*
 insape ai-knam an-i-ne nko-kar i
 then wood-tree GIV-3SG.SPC-this 1PL.EX-fell 3SG
 'Then, this tree we cut it.' [ATcj]

Examples of preposed objects without a resumptive pronoun are rare. One example is the following, where the preposed *fafyár ayedyá* has no resumptive pronoun following the verb *yafár* 'I tell':

- (14) *Fafyár* *ayedyá* *na* *yafár*
 fafyár aye=d-ya na ya-fár
 story 1SG.POS=3SG-SPC then 1SG-tell
- fa* *ikaki* *va* *voi, (...)*
 fa i-kaki va voi
 CONS 3SG-long not but
 'My story then I won't tell it long, but (...)' [KGcd]

8.3.1 Clause constituents

Following Andrews (1985) and others, the present description makes use of the concepts S, A and O. S is defined as the sole argument of an intransitive predicate (which receives the treatment normally accorded to the single argument of a one-argument predicate). A is

defined as the argument of a two-argument verb that receives the same morphological and syntactic treatment normally accorded to an Agent of a primary transitive predicate. O, finally, is used for arguments of a verb with more than one arguments, which gets the treatment normally accorded to the Patient of a primary transitive verb.

8.3.1.1 Subject

If a language groups S and A together with the exclusion of O, this can be said to be a manifestation of the grammatical relation subject (Cf. Andrews 1985: 69, 103). Taking this as a definition, there are two clear instances where the language groups S and A with the exclusion of O, both of which are discussed in this section. A first manifestation of the subject relation is provided by the pronominal markers on the verb. They are used both to refer to S, as is the case for *i-* in (15) and to A, as does *s-* in (16). In (15), the subject marker is the formal expression of the sole argument of the predicate *mrán*, while in (16) it expresses the Agent of the predicate *mun* 'kill.'

(15) (*Mansar anya*) *imrán*.
 man-sar an-ya i-mrán
 male-old GIV-3SG.SPC 3SG-walk
 'He (the old man) walked.' [MSou]

(16) (*Snonkakusya*) *smun* *inko*.
 snonkaku=s-ya s-mun inko
 human.being=3PL.AN-SPC 3PL.AN-kill 1.PL.EX
 'They (the people) will kill us.' [MBei]

As set out in the preceding section and indicated by the brackets in the examples above, a preverbal full-subject NP can be used, but is by no means obligatory. On the other hand, the subject markers are obligatorily present, even when the subject is expressed overtly by an NP in P1 position. The following utterance, then, is ungrammatical.

(17)* *Snonkakusya* *mun* *inko*.
 snonkaku=s-ya mun inko
 human.being=3PL.AN-SPC kill 1.PL.EX

A second manifestation of the subject relation is found in relative clauses (RC). The relativizing verbal prefix *ve-* is in complementary distribution with the subject marker and used only in case the head of the relative clause (which may be implicit, cf. 10.3.2) is the subject of the RC-internal verb. Consider the following two contrasting examples:

(18) [*Mansar mandovindya veséwar*ya]_{NP} *imar* *kwar*.
 man-sar mandovindya ve-séwar=ya i-mar kwar
 male-old_i yesterday REL_i-seek=3SG.SPC 3SG-die already
 [head_i [REL_i-verb]_{rel clause=det}]_{NP}
 a) 'The man_i that \emptyset _i was looking for something yesterday has died already.' [el]
 b) '* The man that he was looking for yesterday has died already.'

- (19) [Mansar mandovindya syéwarya]_{NP} imar kwar.
 man-sar mandovindya s<y>éwar=ya i-mar kwar
 male-old yesterday <3SG>seek=3SG.SPC 3SG-die already
 [head_i [<SM>_jverb]_{rel.clause=det}]_{NP}
 a) 'The man_i that he_j was looking for yesterday has died already.' [el]
 b) * The man that was looking for something yesterday has died already.'

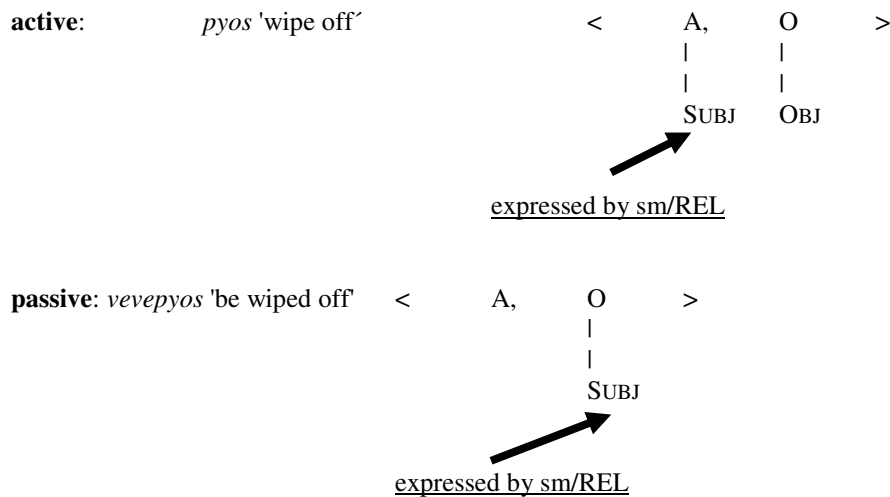
Both in (18) and (19), *mansar* 'old man' is the head of the relative clause. In (18), the use of *ve-* indicates that *mansar* must be coreferential with the subject of the predicate *séwar*, expressed by *ve-*, so that only free translation a) is possible. In (19), however, the non-use of *ve* indicates that the subject of *syéwar* and the head of the relative clause are not coreferent. While the examples above are based on elicitation, the corpus has numerous examples illustrating both relative clauses formed with *ve-* and relative clauses formed without. The relevant point for the present discussion is that *ve-* generalizes over S and A, to the exclusion of O. Thus, in (20), the relativizer is an expression of the intransitive subject of *kain* 'sit', while in (21) it expresses the subject of the transitive *mun* 'kill' and *orn* 'swallow'. The exclusion of O has been illustrated in (18)b above.

- (20) *Supambar* [sepato vekain ansya]_{NP}
 su-pambar sepato ve-kain an-s-ya
 3DU-turn.around shoe REL-sit GIV-3PL.AN-SPC
 'The two turned around the shoes that were lying there.' [FAai]

- (21) *yamkák* [mamfnai vemunu eyorn ko (...)]
 ya-mkák mamfnai ve-mun=u ey-orn ko
 1SG-fear fish REL-kill=U REL-swallow 1PL.IN
 'I fear the fish that killed and swallowed us ...' [TWfk]

Finally note that the grammatical relation 'subject' is more than an abstraction over the (semantic) functions of S and A. This is clear from the fact that the Biak language has a passive construction, which is, however, rarely used. In this passive construction, the subject marker refers to the NP that would be treated as O in the active counterpart. This is indicated in the following figure.

Figure 4 Biak passive



Example (22) illustrates an active sentence, while (23) is an example of the passive predicate *vevepyos* 'be wiped off'. Some more on the passive will follow in section 8.3.3 below.

(22) *Ipyum syadi kopyos mov ine*
 i-pyum syadi ko-pyos mov i-ne
 3SG-good more 3PL.AN-wipe.off situation 3SG.SPC-this
 'It were better if we made an end to this situation' [el]

(23) *Ipyum syadi mov ine vyevepyos.*
 i-pyum syadi mov i-ne v<y>eve-pyos
 3SG-good more situation 3SG.SPC-this <3SG>PAS-wipe.off
 'It were better if this situation would come to an end (lit. be wiped off)' [VYax]

8.3.1.2 Object

In the discussion on the subject, it was shown that the language treats A and S different from O. Relevant for the discussion here is that Biak treats O not only as different from S and A, but also as different from other overtly expressed semantic roles in that it is the only postverbal NP that is not introduced by a preposition. The properties of the object-NP can be summarized as follows.

1. Unlike other non-subject arguments, the object is not introduced by a preposition.
2. With few exceptions, the object occupies the first postverbal NP-position in Figure 3 above.
3. It may consist of a pronoun or a full NP.
4. Some objects can be 'made subject' in a passive construction.
5. If the object is topicalized, a resumptive pronoun may but need not follow the verb in the usual position for objects.

Properties 1 through 3 are illustrated in the following examples. The passive will be discussed in 8.3.3, while examples of topicalized objects can be found in the examples (13), (14),

One of the two instances is the following, where the object follows the beneficiary-argument *ve si* 'to them' and the adjunct *roro fararúr sena* 'in their work'.⁵

- (28) *Buk ve si roro fararúr sena*
 buk ve si roro f~ara~rúr se=na
 2SG-give to 3PL.ANIM LOC ~RED~make 3PL.AN.VBLZ=3PL.INAN

berkat *bedya kako.*
 berkat be=d-ya kako
 bless 2SG.POS=3SG-SPC too
 'Give them in their work your blessing too.' [GDab]

Further note that a limited number of adverbs can intervene between the verb and the object, more on which can be found in 3.7 on adverbs. One example of an intervening adverb is given with *awer* 'PROHIB' in (29).

- (29) *Ras ma rov imrán wawark i,*
 ras ma rov i-mrán wa~wark i
 day and night 3SG-walk RED~guard 3SG

insama ido randipno san awer i.
 insama ido randip=no s-an awer i
 CONS THEM pig=nonSP.nonSG 3PL.AN-eat PROHIB 3SG
 'Day and night he walked around (his garden) to guard it, so that no pigs would eat it.' [MMag]

Finally, it is important to note that the relation of the object with the verb crucially differs from the relation of full-NP subject with the verb. While the 'full-NP subject' and the pronominal subject marker are in an appositional relation of coreference, pronominal objects and full-NP objects are in complementary distribution. 'Full-NP subjects', then, are not verbal arguments, while full-NP objects are. When a full-NP object is topicalized, however, the topicalized NP is not an argument any more, but coreferential with the resumptive object pronoun, as is the case of *mnu ine* 'this village' in (30) below, which is coreferential with the object pronoun *i*.⁶

- (30) *Ba, mnu ine yorn pres i kurvo (...)*
 ba mnu i-ne y-orn pres i nevertheless
 hey village 3SG.SPC-this 1SG-swallow totally 3SG nevertheless
 'Hey, I have swallowed all of this village, nevertheless ... [TWec]

⁵ Although I have not done much research on possible mutual orders of postverbal arguments and adjuncts, it is to be expected that pronominal object-arguments will have to be placed in the NP-position directly following V, while full-object NP's have wider possibilities.

⁶ Note that the form *i* shows that we have to do with a free pronoun, and not with a pronominal article, which would have the form *ya* in other position than the end of and intonational phrase. It is clear, then, that here we have to do with topicalization and not with a cleft construction (cf. 10.3.5).

8.3.1.3 Destination, beneficiary and recipient

The prepositions *ve* 'to' and the adverb-preposition combination *fa ro* 'to.there LOC' are used both for the expression of destinations, and for the expression of beneficiaries and recipients. An example of the use of *fa ro* 'to.there LOC' for beneficiaries is given in (31)

- (31) *Kyovs irai anine fa ro aya*
 <y>kovs necklace an-i-ne fa ro aya
 <3SG> necklace GIV-3SG.SPC-this to.there LCO 1SG
 'He has bought this necklace for me.' [el]

Example (32) shows the use of *ve* for the expression of destinations.

- (32) *Wám ine dún aya*
 wam i-ne d-ún aya
 wind 3SG.SPC-this 3SG-take 1SG
- ve Sup Amberi kada.*
 ve sup amber=i kada
 to land foreign=iPROP suppose.that
 'If the wind just took me to the foreign land ...' [CPah]

In (33), on the other hand, we find the prepositional *ve* used for a recipient, expressed by the pronominal *i*.

- (33) *Insape svuku násan ebayo ve i*
 insape s-vuk=u násan e-ba=yo ve i
 then 3PL.AN-give=U title REL-big-nonSP.SG to 3SG
 'Then they will give him a big title.' [ASad]

More on the preposition *ve* can be found in section 3.6.3.

8.3.1.4 Comitative and instrument

Comitatives and instruments can be expressed by means of prepositional phrases headed by the preposition *kukr* 'with'. This preposition is related to the conjunction *kukr*, which conjoins both noun phrases (or pronouns) and clauses. An example of a *comitative* prepositional phrase is given with *kukr romámkunya* 'with the child' in (34).

- (34) **Rusa** *nanya ifrar kukr romámkunya (...)*
 rusa an-ya i-frar kukr romá-mkun=ya
 deer GIV-3SG.SPC 3SG-run with child-little=3SG.SPC
 'The deer ran together with the child (on its back)' [FPdd].

In the following example, on the other hand, *kukr* is used as a conjunction of two pronouns.

- (35) (...) **dan** *nko kukr mko, kove na*
 (...) dan nko kukr mko ko-ve na
 (...) and 1PL.EX with 2PL 1PL.EX-give 3PL.INAN

fa namnis káme.
 fa na-mnis kám
 CONS 3PL.INAN-fit all
 '(...) and we and you, we make that it is all arranged.' [BVdt]

The use of *kukr* as head of an *instrumental* phrase is illustrated in (36).

(36) *Snon anine kyórkar wortelya*
 snon an-i-ne k<y>ór-kar wortel=ya
 male GIV-3SG.SPC-this <3SG>cut-break carrot=3SG.SPC

kukr vraminsi.
 kukr vramin=s-i
 with arm=3PL.AN-SPC
 'This man breaks a carrot with his hands.' [CB_P_32]

Although the language offers the possibility to express instruments by means of *kukr*, more commonly we find the semantic role of instrument expressed by the object of *vuk* 'use', or by the verbal prefix *k-*. As instrumental expressions like these will receive detailed attention in 10.12, for the present purpose it suffices to give just two examples. While the use of *vuk* is exemplified in (37), example (38) is an illustration of the use of the instrumental prefix *k-*. Note that the verb *s-kór* in (37) agrees with the NP *vraminsya* 'hands'.

(37) *Vín anya vyuk vraminsya*
 vín an-ya v<y>uk vramin=s-ya
 female GIV-3SG.SPC <3SG>give arm=3PL.AN-SPC

skór kar ainsnáwi.
 s-kór kar ai-snáw=i
 3PL.AN-make.karate.movement break wood-branch=3SG.SPC
 'The woman uses here arms to break a branch by making a karate movement.'
 [CB_P_42]

(38) *Vín anine dúf kamkamyá*
 vín an-i-ne d-úf kamkam=ya
 female GIV-3SG.SPC-this 3SG-pick.up hammer=3SG.SPC

fa ikkam diwr ben anya
 fa i-k-kam diwr ben an-ya
 CONS 3SG-use-hammer shatter plate GIV-3SG.SPC
 'This woman takes a hammer to use it to hammer and shatter the plate.' [CB_T_40].

8.3.1.5 Time and location

Locational arguments (and adjuncts) are expressed by prepositional phrases headed by *ro* 'LOC' or *ra* 'along' which have been given attention in 3.6.1 and 3.6.2. Time adjuncts are headed by the preposition *ro* when following the verb, but may lack the preposition when used as part of the frame. Compare the prepositional phrase *ro mesrna* 'during the days' with the noun phrases *rovna* 'the evenings' in (39) and *ras ine* 'this day' in (40)

- (39) *Sukain* *sumámwark* *ker* *mankroderya*
 su-kain su-mám-wark ker man-kroder=ya
 3DU-stay 3DU-see-guard continually bird-frog=3SG.SPC
- ro* *mesrna,* *rovna* *ido* *suyenef.*
 ro mesr=na rov=na ido suy-enf
 LOC day=3PL.INAN.SPC night=3PL.INAN.SPC THEM 3DU-sleep
 'The two watched and guarded the frog during the day, but at night they slept.' [FFac]
- (40) *Ras* *ine,* *waryan* *anine* *imrán* ...
 ras i-ne waryan an-i-ne i-mrán
 day 3SG.SPC-this <k.o.feast> GIV-3SG.SPC-this 3SG-walk
 'This day, this feast progresses ...' [DAax]

8.3.2 Intermezzo: preverbal NP and frame

Considering what in a Biak sentence can precede the verb, the above discussion has mentioned two types of preverbal material. On the one hand, there is the P1-position, reserved for noun phrases coreferential with either the subject or the object (or the instrument, cf. footnote 7). On the other hand, a clause may be preceded by different sorts of constituents that form a frame. This section discusses the relation between the two.

Combining Figure 1 and Figure 3 above, we get the following figure, which can be seen as representing the structure of a sentence containing one main clause. Although frames can also contain clauses, for ease of description this possibility has not been presented here, but is further discussed in 10.1.

Figure 5 Structure of a sentence containing one main clause

FRAME	P1	CORE	EXTENSION
(Adverb/PP/NP)*	(NP)	[SM- + V (NP)] _{Core}	(PP)*

The aim of this section is to explain why I think a descriptive distinction between P1 on the one hand and frame positions on the other hand is helpful to give an account of Biak clause and sentence structure. This section first characterizes the P1 position. Then it gives a characterization of the frame, while it closes with a discussion on some of the problems in distinguishing between the two.

The P1-position can be characterized as follows.

1. It is reserved for NP's that are coreferential with the subject or the object of the verb.⁷
2. NP's occupying this position form one intonational phrase with the following verb.
3. The P1 position cannot be occupied by free pronouns.

The following criteria, on the other hand, are each a sufficient condition for considering a constituent as part of the frame.

⁷ In other words, the topic can only be coreferential with A, S or O. It should be noted, however, that there is one exception to this rule, in the sense that the language makes use of an instrumental prefix that can be analyzed as a means to mark that the topic is an instrument. Cf. section 10.12, especially 10.12.3, note 26.

1. All preverbal prepositional phrases are part of the frame.
2. All phrases preceding an NP in P1-position are part of the frame.
3. All phrases followed by one of the markers *ma* 'TOP', *ido* 'THEM', *indo* 'THEM', *kada* 'suppose that', *vo* 'SIM' and *voi* 'but' are part of the frame.⁸
4. All constituents marked by a clear intonational pause are part of the frame.

The criteria formulated above are based on the following observations.

- Pronouns cannot form one intonational unit with the verb
- Preverbal NP's coreferential with S or O *usually* form one intonational phrase with the verb.
- Other preverbal material *usually* does not form one intonational phrase with the clause to come. Thus, it can be observed that most preverbal Prepositional Phrases, and most phrases preceding a P1-constituent do not form one intonational phrase with the verb or the NP, respectively

Constituents marked by *ma*, however, may very well form one intonational phrase with the following verb. Phrases closed off with the THEME-marker *ido*, on the other hand, are virtually always followed by a pause.

At the present state of research, the distinction just given mainly functions to allow for some descriptive generalizations, whereas it does not have much absolute predictive power, nor does it really explain very much. The only 'absolute prediction' is that pronouns cannot form one intonational unit with the verb. The realization of preverbal NP's and PP's, on the other hand, can only be described in terms of tendencies.

What, then, is the use of making the distinction given above? The distinction should be seen as an expression of the intuition that the position directly preceding V is functionally different from other preverbal positions. Constituents that are part of the frame, then, have a relation with the following clause that differs from the relation between P1 and the clause. Although the language occasionally allows for frame-constituents to be realized as one unit with the verb, this is quite marked. P1-constituents, on the other hand, form one intonational phrase with the following verb *by definition*. Thus, if a speaker pauses between an NP coreferential with S or O and the verb, I would describe this pausing as a placing of the NP in the frame instead of in P1 position. Stating this is the same as stating that this pausing is somehow 'functional'.

Although it is outside the scope of this thesis to pay much attention to the function of pausing, I suspect it can best be described by assuming the principle of the separation of reference and role as described by Lambrecht. This principle says that one should 'not introduce a referent and talk about it in the same clause' (Lambrecht 1994:185). The frame, then, is *reference oriented* and serves to introduce or re-activate referents (or events), presenting them as given entities with respect to which the clause should be interpreted. The clause, on the other hand, is *role-oriented*, and expresses the role of the arguments within the proposition. That subjects

⁸ More on these markers can be found in the following sections. Sections 3.8 and 10.6.1 discuss *ido* and *indo* as a marker of THEME, both clause-finally and phrase-finally, while 10.6.2 discusses *kada*. Section 10.6.3 discusses *vo* and *voi* as markers of clausal frames, which are only occasionally used to close off phrases. The topic marker *ma* 'TOP' is discussed in 3.8.

and direct objects are usually placed in P1-position, is a sign of their being activated. On the other hand, pausing can be used to (re-) establish a referent.

In line with this, new referents are not placed in P1-position, but introduced either as a non-subject argument, or as part of the frame. An example of the latter is given with *ikák=ya* 'snake=3SG.SPC'

- (41) *Syun,* *syun* *ri,* *aa,*
 syun *syun* *ri* *aa*
 <3SG>enter <3SG>enter LOC aa
- avyav* *anya* *randum+*
 avyav *an-ya* *ran-rum*
 cave GIV-3SG.SPC to.o.there-inside
- fama + ikákya #* *vyark* *wark* *i.*
 fama *ikák=ya* <y>vark wark i
 however snake=3SG.SPC <3SG>-lie guard 3SG
 'He entered ... he entered into ... the cave inwards but, (there was) a snake ..., it lay and guarded it.'[MMbf].

In the example above, the intonation following *ikákya* 'snake=3SG.SPC' almost seems utterance-final - as it has the lightly falling intonation that is typical for the end of sentences - but may also be interpreted as closing off the frame. Interestingly, especially at the beginning of stories, it is not unusual for NP's referring to new participants to be directly followed by sentence-final intonation.⁹ A good illustration is the story of the three men that go out for a rowing trip. The story begins as follows:

- (42) *Rasya* ... *snon* *ri* *kyor* #
 ras=ya ... *snon* *ri* *kyor* ...
 day=3SG.SPC ... male NUM.LNK three...
- Skora* *skovavores#*
 sko-ra *sko-va~vors*
 3PC-go 3PC-RED~row
 'One day, (there were) three men. They went out for a rowing trip'

The first utterance is formed by *rasya* 'one day' through *kyor* 'three'. The fact to be noted is that here we find the three main participants being introduced by an independent NP, followed by an utterance-final intonation. The story then proceeds with the NP *snon di kyor anskoine* 'these three men', which can be said to form a frame for the following clauses.

- (43) *Snon* *di* *kyor* *anskoine* +
 snon *ri* *kyor* *an-sko-i-ne* +
 male NUM.LNK three GIV-TR-SPC-this +

⁹ In this section, I use the term sentence-final intonation and utterance-final intonation interchangeably for 'the intonation that is typically used to close off sentences.' I do not want to claim, however, that an utterance like the one running from *rasya* through *kyor* constitutes a sentence, but only that it has the intonation pattern typical for sentences.

<i>iya</i>	<i>byabara</i>	+
i-ya	b<y>abara	+
3SG-SPC	<3SG>suffer.k.o.skin.disease	+

<i>iya</i>	<i>vukór</i> ¹⁰	<i>ivyor</i>	+
i-ya	vukór	i-vyor	+
3SG-SPC	head	3SG-bald(headed)	+

<i>iya</i>	<i>vyemnóre#</i>
i-ya	v<y>e-mnór
3SG-SPC	<3SG>VBLZ-mucus

'These three men, one was suffering of a skin disease, the other was bald-headed, the other had a snotty nose.' [TWab]

In the example above, both the non-utterance final intonation, and the pausing, and the fact that P1 is filled by another NP make clear that the initial NP is part of the frame. Here too, we might say that the frame is reference oriented, in that it re-establishes the referents that will be predicated over. Their precise role with respect to the predicate(s) is made clear in the rest of the utterance.

8.3.3 Passive

This section gives some examples of passive predicates. Passive predicates are rare. An example of a passive is given in (44), which was given as description of a picture of a stick standing upright in the ground.

(44)	<i>Aifyór</i>	<i>eser</i>	<i>vyevevar</i>
	ai-fyór	eser	v<y>eve-war
	wood-piece	one	<3SG>PAS-plant

<i>fa</i>	<i>dores</i> (OP)
fa	d-ors
CONS	3SG-stand

'A piece of wood is being planted so that it stands' [OP20]

The examples (45) through (47) below are descriptions of film scenes at which the researcher held his hand over the Agent, having asked before for a description of what was happening. Functionally, then, I would say that the construction is a typical passive, because it is used to express transitive events in which the Agent is demoted (cf. Shibatani 1985). Until now, I have not been able to discover any additional semantic difference between the passive and its possible active counterpart.

(45)	<i>Ankraibon</i>	<i>anya</i>	<i>vyevepówe.</i>
	ankrai-bon	an-ya	v<y>eve-pów
	orange-fruit	GIV-3SG.SPC	<3SG>PAS-peel
	'The orange is being peeled.' [CB_T_29]		

¹⁰ For the non-use of a pronominal article in this position, cf. the remarks in section 6.2.3 on the semantically inalienable nouns.

- (46) *Aimun ine vyevesow uk*
 ai-mun i-ne v<y>eve-sow-uk uk
 wood-part 3SG.SPC-this <3SG>PAS-saw- in.two
 'This piece of wood is being sawed in two.' [CB_T_48]
- (47) **Guntin** *anya vyeveyúf fa dai*
 guntin an -ya v<y>evey-úf - fa d-ai
 scissors GIV-3SG.SPC <3SG>PAS-pick.up CONS 3SG-open
 'The pair of scissors was picked up so that it opened.' [CB_T_59]

The limited distribution of the passive probably has to do with the fact that the language also has alternative strategies to demote the Agent, like the use of impersonal 3rd plural, as in (48). Here, the topical NP *wár ine atau mnu ine* 'this river or this village' is not made into the subject of a passive predicate, but used as object of a predicate with an impersonal 3PL.AN *s-* as the subject.

- (48) A, *wár ine atau mnu ine*
 A *wár i-ne atau mnu i-ne*
 Ah water 3SG.SPC-this or village 3SG.SPC-this
- s-ór i kako ve Weirusi...*
sór i kako ve Weirusi
 3PL.AN-call 3SG too as Weirusi
 'This river or this village is also called Weirusi (lit. they also call it Weirusi)' [TWhj]

Not all transitive verbs, however, allow for passivization. The verb *marisn*, for example, is formally transitive in that it allows for the expression of an object, but cannot be passivized. When I presented my language helper with (49)a, he disapproved of the example and gave me example b instead.

- (49)a * *Sup ine vyeveमारिसन ->*
 sup i-ne v<y>eve-marisn
 land 3SG.SPC <3SG>PAS-enjoy
 ??This land is rejoiced over
- b *Sup ine simarisn i*
 sup i-ne si-marisn i
 land 3SG.SPC 3PL.AN-enjoy 3SG
 'This land they like' [e]

The corpus of non-elicited speech contains no examples of other than 3SG-passives. In elicitation, 3PL.INAN examples as in (50) below were considered grammatical too.

- (50) *Sansun naine nevesawek*
 san~sun na-i-ne neve-sawk
 clothe 3PL.INAN-SPC-this 3PL.INAN.PAS-tear
 'These clothes are torn' [e]

Examples of non-3rd person passives have not been attested.

8.3.4 Basic verbal clause types

The basic verbal clause types have received extensive attention in Chapter 5 on verbs. A basic division was made between intransitive verbs like *pyum* 'good' (4.2.1), S=O ambitransitive verbs like *vás* 'open' (4.2.2) and transitive verbs like *mun* 'hit' (5.2.3). In addition, the following subclasses were recognized:

- verbs of meteorological condition like *myun* 'rain' (5.2.4),
- verbs assigning the semantic roles of Agent, Theme and location like *ker* 'plant' (5.2.5),
- and the auxiliary verb *ve*.

8.4 Single noun phrase predicate, preceded by NP as frame

The corpus contains a number of nominal predicates consisting of a single noun phrase, which is preceded by another noun phrase or nominal in the clause-preceding frame. This construction is quite rare, however, compared to the other types of nominal predicates discussed in this section. In all of the attested cases, the first NP gets the morphosyntactic treatment that is normally attributed to NP's that are part of the clause-preceding frame (cf. 8.2 and 10.1). This first NP, then, is marked off by the frame-constituting *ido* 'THEM', or separated from the second NP by a clear intonational break. An example of the use of *ido* is given in (51), where the NP *nane ido* 'these here' is part of the frame. The second NP gives the identity of the NP mentioned in the frame.

- (51) *Indya nane ido,*
indya na-ne ido
 so 3PL.INAN.SPC-this THEM
- [[*ro kakero [sór ve vrim]*]_{RC}]_{NP}.
 ro kaker=o s-ór ve vrim
 thing plant=O 3PL.AN-call as <k.o.plant>
 'As to these, they are plants that they call *vrím*.' [ATad]

Another example of the use of *ido* is given in (52) which are the words of a big whale towards a boy sitting in the top of a tree.

- (52) *Awyásya ido,*
*aw-i-yás-ya*¹¹ ido
 2SG-SPC-up-that THEM
- mambri vebabo ke, mambri vekwar.*
 man-vri ve-babo ke man-vri ve-kwar
 male-heroic REL-new DOUBT male-heroic REL-old
 'You up there, are you a new hero, or an old one?' [TWec]

In the answer, the pronoun *aya* '1SG' and the following noun phrase *mambri babo* 'a young hero' are separated by an intonational break only.

¹¹ *i* '3SG.SPC' is elided after *aw* '2SG', cf. Table 3 through Table 5.

- (53) *Romámkun* *anya* *dóve:*
 romá-mkun an-ya d-óve
 child little GIV-3SG.SPC 3SG-say

"[aya]_{NP}, [mambri babo]_{NP}."
 aya man-vri babo
 1SG hero new
 'The child answered: "Me, (I am) a new hero" ' [TWee]

A final example is taken from the introduction of a story. Again, the first NP is separated from the second by a clear intonational break.

- (54) [*Fafyár* *ine*]_{NP} + [*fafyáru* *kais* *kukru* *mansórom*]_{NP}.
 fár.RED i-ne fár.RED=u *kais* *kukr=u* man-sórom
 tell.RED 3SG.SPC-this tell.RED=U octopus with=U bird-heron
 'This story is a story about an octopus and a heron.' [CPaa]

8.5 Nominal clauses based on copula *is*

This section gives an overview of clauses formed by means of the copula or predicator *is* 'PRED'. While section 8.5.1 opens with a comparison of the different clause types, sections 8.5.4 through 8.6 each deal with one of the clause types in succession.

8.5.1 Overview

Formally, all clauses based on the copula *is* 'PRED' can be thought of as somehow related to the construction shown in Figure 6.

Figure 6 Nominal clauses with copula *iso* (brackets indicate optionality)

(NP) + pron + *is-o* + NP/pron

Note that the copula *is* is always preceded by a pronoun, possibly preceded by a full NP, in which case the pronoun functions as a sort of agreement marker on the copula. The copula *iso* consists of two parts: the first part *is* is a predicator that is also used as the basis for the constructions described in 8.5 and 8.6, while the second part *o* may historically be related to the non-specific marker *o*. An example of an *iso*-based construction is given in (55) below.¹²

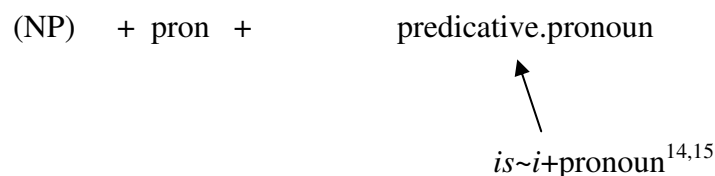
- (55) [*Ransyo-rámna*]_{NP} *naiso* [*nane*]_{pronoun}
 ransyo-rám=na na-is-o na-ne
 sweet.potato-leaf=3PL.INAN.SPC 3PL.INAN-PRED¹³-O PL.INAN-this
 'The sweet potato leaves are these' [ATah]

¹² I have chosen to write the initial pronoun as one word with the copula if it is preceded by a full NP, to express the intuition that it functions as a sort of inflectional prefix. Moreover, if the free pronoun ends in *i*, this *i* merges with the initial *i* of the copula, in which case it is even more appealing to consider the free pronoun and the copula as one word.

¹³ The gloss PRED, which should be read as a shortcut for 'predicator' is chosen instead of COP (copula), to generalize not only over both *iso*-based construction and predicative pronouns, but also over the locative-existentials discussed in 8.6. In the latter case, one could still argue that *is* has a predicating function, but it is not possible to conceive of this locative-existential *is* as a copula.

The other two clause types described in this section (8.5) and the following (8.6) can be seen as constructions in which the copula and a following pronoun have become more integrated. First consider Figure 7, which gives the form of constructions based on the use of a predicative pronoun:

Figure 7 Predicative construction



The predicative pronouns are formed on the basis of the copula *is*, which is combined with a pronoun. A partial paradigm for the predicative pronouns is given in Table 1. The table gives both the predicative pronouns, and an example of how these can be used as part of a nominal clause. For expository reasons the table gives equational clauses for the singular forms while the nonsingular predicative pronouns are accompanied by clauses expressing proper inclusion; the entities referred to by the predicative pronoun are assigned to the class expressed by the noun phrase preceding the copula. A detailed discussion on the paradigm of predicative pronouns follows in 8.5.5.

Table 1 Simple predicative pronouns with examples illustrating equation in singular and proper inclusion in nonsingular

SINGULAR	predicative pron	Example	Translation
1SG	<i>is-aya</i>	<i>Guru Marisan isaya</i> ¹⁶	'I am teacher Marisan'
2SG	<i>is-aw</i>	<i>Guru Marisan isaw?</i>	'you are teacher Marisan?'
3SG	<i>i-ri</i>	<i>Guru Marisan iri</i>	'it 's teacher Marisan'
NONSINGULAR			
1DU.EXCL	<i>s-i-nu</i>	<i>Guru sinu</i>	'we two (excl) are teachers'
1DU.INCL	<i>s-i-ku</i>	<i>Guru siku</i>	'we two (incl) are teachers'
1PL.EXCL	<i>s-i-nko</i>	<i>Guru sinko</i>	'we(excl) are teachers'
1PL.INCL	<i>si-ko</i>	<i>Guru simko</i>	'we (incl) are teachers'
2DU	<i>s-i-mu</i>	<i>Guru simu</i>	'you two are teachers'
2PL	<i>s-i-mko</i>	<i>Guru simko</i>	'you are teachers'
3DU	<i>su-iri / s-i-su</i>	<i>Guru sisu / guru suiri</i>	'the two of them are teachers'
3PC	<i>sko-iri / s-i-sko</i>	<i>Guru skoiri</i>	'the three of them are teachers'
3PL.AN	<i>s-i-ri</i>	<i>Guru siri</i>	'they are teachers'
3PL.INAN	<i>na-iri</i>	<i>Rum nairi</i>	'it 's houses'

Although the plural forms in the table above at first sight seem quite unrelated to the singulars, I will show in 8.5.5.1 that *i* can be analyzed as an allomorph of *is*, used in pre-consonantal position. Further it should be noted that all 3rd person predicative pronouns

¹⁴ In this Chapter, the term 'pronoun' generalizes over pronouns and complex articles. As set out in 3.2.2, there is no reason to make a distinction between the two. The term 'complex pronoun' and 'complex article', then, are synonyms.

¹⁵ As will be set out in 8.5.5.1, the allomorph *i* is used in pre-consonantal position.

¹⁶ As indicated in footnote 12, predicative pronouns and existentials are written as one word with the preceding pronoun when this pronoun is preceded by a noun phrase, to express that the pronoun functions as a sort of inflectional prefix. Otherwise, pronoun and copula are separated. The copula and the *following* pronoun, however, are written as one word. This choice is an expression of the intuition that it is usually possible to pause in between the NP and the following copula-initial pronoun, as well as in between a single free pronoun (not preceded by an NP) and the copula, but impossible to break up the sequence of the copula and the following pronoun. Further research is necessary, however, to prove whether this intuition is valid.

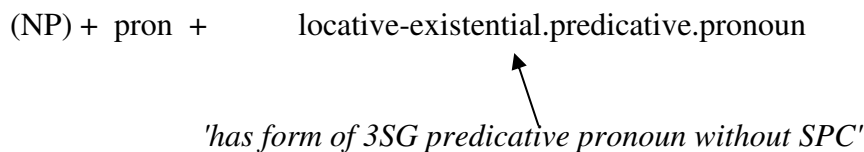
end in *ri* and not in *i* (SG), *su* (DU), *ske* (TR), *si* (PL.AN) and *na* (3PL.INAN), as would be expected on the basis of the 1st and 2nd person forms. Although all 3rd person pronouns end in *ri*, for 3rd dual and 3rd paucal forms ending in *su* '3DU' and *ske* (3PC) are also acceptable, however. While the table above gives predicative pronouns based on simple pronouns (dealt with in 8.5.5.2), predicative pronouns can also be formed by combining *is* with a complex article like *i-ne* '3SG.SPC-this'. Thus, an often used 3SG complex predicative pronoun is *is-i-ne* '3SG.PRED-SPC-this', while analogous forms are used for 3DU through 3PL (*su-is-i-ne* '3DU-PRED-SPC-this', *ske-is-i-ne*, *s-is-i-ne* and *na-is-i-ne*). An example containing a 3rd person complex predicative pronoun based on *is* is given with *sisine* in (56).

- (56) *Darsya* *sisine*.
 dar=s-ya *s-is-i-ne*.
 rib=3PL.AN-SPC 3PL.AN-PRED-SPC-this
 'These here are the ribs.' [BPav]

Complex predicative pronouns are further dealt with in 8.5.5.3.

A final construction based on the copula *is* is given with the existential-locative predicative pronouns. The form of these constructions can be presented as in Figure 8.

Figure 8 Locative-existential construction



The form of the existentials can be described as similar to the 3rd person complex predicatives, the only difference being the elision of the specifier. Thus, one finds forms like *is-ne* '3SG.PRED -this' -> 'he is here', while analogous forms are used for 3DU through 3PL (*su-is-ne* '3DU-PRED- this', *ske-is-ne*, *s-is-ne* and *na-is-ne*). An example of an existential construction is given in (57)

- (57) **Bapak** *isne* *ido (...)*
 bapak is-ne ido
 mister 3SG.PRED-this THEM
 'If he (the minister) is here, (...)' [YMan]

Locative-existential predicative pronouns will be given further attention in 8.6.

8.5.2 Referentiality, subject, predicate and focus

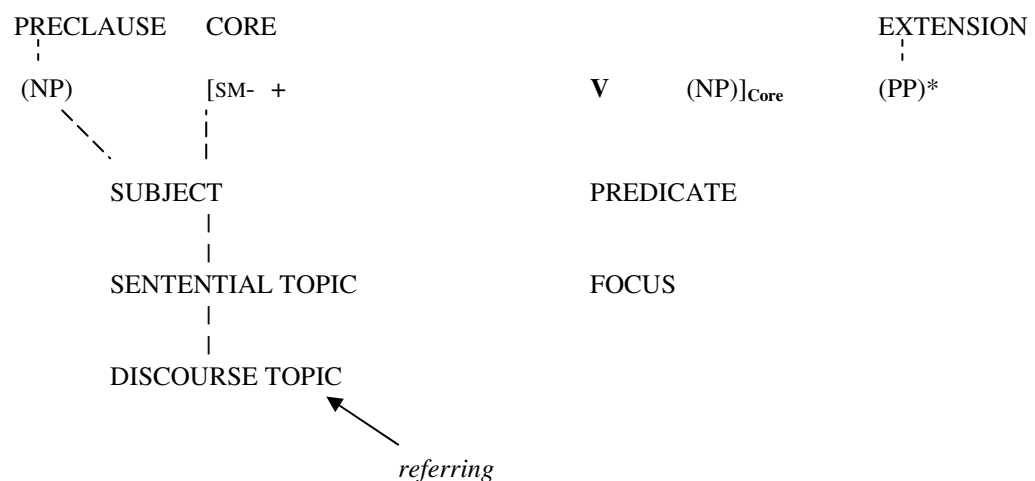
Most human communication is about entities playing a role in events.¹⁷ In Biak, as in most languages, reference to entities is made by means of nouns, while events are expressed by verbs. The role of the entities with respect to the events is regulated by a combination of morphosyntactic means (position of NP with respect to V, inflection) and lexical means (e.g. prepositions). Expressions about entities playing a role in events are called propositions, while the morphosyntactic instantiation of a proposition is called a clause. Often, the same entity (or

¹⁷ For the sake of argument, I neglect for now that Biak verbs are also used for the expression of adjectival properties. I use the term 'event' as a general term for both actions and states.

group of entities) plays a role in a series of successive propositions. In that case, the entity can be said to be *discourse-topical*. Many of the successive clauses will be assertions *about* this discourse-topical entity. In that case, the discourse-topical entity also is a *sentence-topic*.¹⁸ Although not all clauses contain a topic,¹⁹ all sentences have a 'focus-domain', which serves to express 'new' or 'asserted' information.

As we have seen above, in verbal clauses the sentential topic precedes the predicate. There is, moreover, a strong tendency for topics to be coreferential with the subject (expressed by the subject marker). In the majority of cases, then, subject and sentential topic coincide. Given the tendency for sentential topics to be discourse topics, the structure of 'the average verbal clause' can be presented as follows:

Figure 9 Structure of the default verbal clause in terms of subject, topic and focus



The figure above also expresses the rule for topics to be referring, as is stated by Lambrecht (1994: 156). Lambrecht also remarks that only specific entities can be referring.²⁰

Other than verbal clauses, the primary aim of nominal clauses is not to express the participation of entities in events. Rather, they are used either to equate an entity with another entity, or to assign this entity to a certain class. Although the relation expressed by nominal clauses differs from the relation expressed by verbal clauses, it is nevertheless not unusual to analyze nominal clauses in the same terms as verbal clauses. Nominal clauses, then, can also be analyzed in terms of subject and predicate or topic and focus. In certain languages, the formal similarity of verbal clause and nominal clause makes clear which part of a nominal

¹⁸ Although I would not like to claim that all sentence-topics must also be discourse topics, I think there is a strong relation between the two. As Lambrecht (1994:168) writes, for a referent to be interpreted as the topic of a proposition, the referent must be 'accessible' or 'of current interest'. Methodologically, in a text-based corpus, the main way to find out whether a referent is of current interest or accessible, is to find out whether it is discourse-topical, i.e. whether it plays a role in the preceding (linguistic) context.

¹⁹ According to Lambrecht (1994: 141, 168,233),thetic sentences, in particular those of thethetic or presentational type, lack a topic, as the communicative purpose of such sentences is not to convey information about the subject-topic. Rather, the assertion extends over the entire proposition (cf. section 8.5.5.3).

²⁰ For the present purpose, this assumption seems rather unproblematic, as I use this assumption to explain that constituents marked as specific are potentially referring. I do not know whether Lambrecht's assumption is tenable the other way round, in the sense that nonspecific entities cannot be referring (and therefore cannot be topics). Remember that the Biak language does allow for nonspecific subjects marked with the marker of nonspecificity (=o, or =no), as described in 5.2.

clause should be considered the subject and which part the predicate.²¹ Whereas in these languages the subject will usually coincide with the topic, a number of languages allow for the subject to be 'in focus'.²² In other words, for a number of these languages it is possible to illustrate that subject and topic usually coincide, but do not coincide necessarily.

Turning to the Biak language, the formal differences between nominal clauses and verbal clauses are too great to decide on formal grounds which part of a nominal clause should be considered subject, and which part should be considered predicate. Given that the language offers no formal clues for the independent identification of subject and predicate, there are no grounds to make a distinction between subject and topic or between focus and predicate. In the remainder of section 8.5, I will use topic and subject as synonymous terms, while I will do the same for predicate and focus, unless it is better for expository reasons not to do so (cf. section 8.5.5.3). In nominal clauses, the subject-topic refers to the entity that is equated with another entity or assigned to a certain class, while the predicate-focus is an expression of the entity or class which the subject is equated with or assigned to, respectively.

How, then, to decide which part of a clause is subject and which part is predicate? In the remainder of this section, the decision is made on the basis of the following criteria.

- 1) The rule (mentioned above) that topics must be referring, can be translated into the following operational definition: if the form of a constituent makes clear that it is not referring, it cannot be a topic-subject.
- 2) The generalization (mentioned above) that sentential topics must also be discourse topics allows for the following operational definition: if one of the constituents making up a nominal clause corresponds to a discourse topic, this is likely to be the sentential topic-subject too.
- 3) Given that sentential accent is an important indicator of focus, sentential accent can be helpful in the identification of the predicate-focus.

Whereas the subsequent sections will go into the structure of the various nominal clauses in more detail, this section gives a comparative introductory overview. Consider the following clauses. Sentence (58) exemplifies a construction based on *iso*, (59) illustrates the use of a complex and the use of simple predicative pronoun, while (60) is an example of a locative-existential construction.

(58) *Timo iso ine / aya.*
 Timo is-o i-ne / aya
 Timo 3SG.PRED-O 3SG.SPC-this / 1SG
 'This here is Timo.' / 'I am Timo.' [e]

(59) *Timo isine / isaya.*
 Timo is-i-ne / is-aya
 Timo 3SG.PRED-SPC-this 3SG.PRED-1SG
 '(This) here 's Timo.' / 'I am Timo.' [e]

²¹ This is the case, for example, in English, where nominal clauses contain a copular verb, preceded by a Subject, which takes the same preverbal position as in a verbal clause, in accordance with the general SVO-structure of the language.

²² This is the case, for example, in the English sentence 'JANE is the boss', where Jane is a focused subject.

- (60) *Timo isne*
 Timo is-ne
 Timo 3SG.PRED- -this
 'Timo is present here' [el]

Focusing on the bold-printed material following the copula in the examples above, there is a striking difference between the predicative pronouns and most of the *iso*-based constructions on the one hand, and the locative-existentials on the other hand. While both *iso* and predicative *is*²³ are followed by specific pronouns (*aya*) or specific complex articles (*ine*), this is not the case for *is* as part of the locative-existential. This formal difference correlates with a clear difference in function. While the form of the *iso*-based constructions and the form of the predicative pronouns make clear that the post-copula material is specific, potentially referring, and therefore a possible subject, this is not true for the existentials. The locational-existentials, then, are predicates, not subjects.

Now consider the material preceding the copula, where we find a comparable difference between constructions based on predicative pronouns and *iso*-based constructions on the one hand, and the existential constructions on the other hand. While *iso* and predicative *is* can be preceded by either generic or specific noun phrases (the functional difference of which is discussed in the following section), locative-existential *is* can be preceded by specific noun phrases only. This is illustrated in the following examples, illustrating generic noun phrases marked with *ri*:

- (61) *Guru riso* *ine / aya*
 guru ri=is-o i-ne / aya
 teacher GEN.SG=3SG.PRED-O 3SG.SPC-this / 1SG
 'This here is a teacher' / 'I am a teacher' [el]
- (62) *Guru risine* / *risaya*
 guru ri=is-i-ne /ri= is-aya
 teacher GEN.SG=3SG.PRED-SPC-this GEN.SG=3SG.PRED-1SG
 '(This) here is a teacher' / 'I am a teacher' [el]
- (63) ?? *Guru risne*²⁴
 guru ri=is-ne
 guru GEN.SG=3SG.PRED- -this
 ??

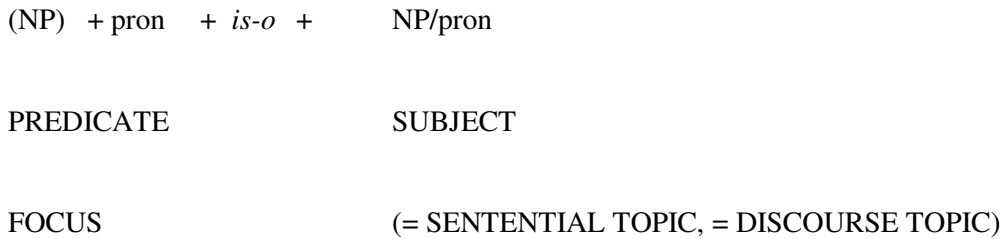
Note that example (63) above is uninterpretable. As the initial *guru* is not referring, it cannot be said to be present in a certain place. In line with what was stated above, then, the initial noun phrase must be a subject, and therefore specific. For the *iso*-based constructions and the predicative pronoun based constructions, on the other hand, the situation is different. In case the initial NP is generic, as in (61) and (62), the only possible candidates for subjecthood are the post-copular pronouns or noun phrases. In case both the copula-preceding and the following nominals are marked as specific, they are both candidates for subjecthood, at least as far as their form is concerned. Although especially the *iso*-based constructions seem to allow for different mappings of the constituent structure to the pragmatic structure, the

²³ I use the term 'predicative *is*' as a short term for the copula *is* as part of a predicative pronoun, while the term 'existential *is*' should be interpreted analogously.

²⁴ Although I have not been able to test this specific sentence, I am quite sure that it is indeed unacceptable.

general tendency is for the subject to follow the predicate. This is expressed in the following figure:

Figure 10 Structure of the 'average' nominal clause in terms of subject and predicate



8.5.3 More on the formal expression of proper inclusion and equation

As indicated in the preceding sections, for *iso*-based constructions and the predicative-pronoun constructions the noun phrase preceding the copula can be either generic or specific. There is a clear functional difference correlating with the two types of noun phrases. In case the noun phrase is specific, the semantic relation expressed by the clause is one of equation, as in the following two examples. In the first example, the pre-copula NP is a proper noun, which is specific by definition:

- (64) *Guru Marisan iso ine.*
 guru Marisan is-o i-ne
 guru Marisan 3SG.PRED-O 3SG.SPC-this
 'This is teacher Marisan.' [BVam]

Another clause illustrating the expression of equation was given me by one of my language helpers showing me around in a garden, when we were watching a group of people baking taros.

- (65) *Movu sup ine sákkankun raya*
 mov sup i-ne s-ák-kan~kun ra=ya
 place land 3SG.SPC-this 3PL.AN-also-RED~burn along=3SG.SPC
- iso ine*
 is-o i-ne
 3SG.PRED-O 3SG.SPC-this
 'The way in which they cook in this land is this' [ATbf].

The semantic relation is also one of equation in case the copula is preceded by a pronoun only, as in (66).

- (66) *Dóve: " [aya]_{NP} iso [ine]_{pron.} "*
 d-óve aya is-o i-ne
 3SG-say 1SG PRED-O 3SG.SPC-this
 'He said "this here is me" ' [MBge]

We now turn to generic noun phrases. A singular noun phrase is marked as generic by the formative *ri*, which takes the place usually reserved for the Determiner.²⁵ Consider the following example, part of a narrative in which people watch a little boat coming in their direction. As soon as the boat is close, they say:

- (67) *Ba, wai daryur risine (...)!
 ba [wai daryur ri]_{NP,GEN=IS-I-NE}
 hey canoe <type.of.canoe> GEN.SG=3SG.PRED-SPC-this
 'Hey, this here is a *daryur*-canoe (...)! [TWfj]*

Another example is the following, once posed as a question to the researcher.

- (68) **Mahasiswa risaw?**
[mahasiswa ri]_{NP,GEN=IS-AW}
 student GEN-3SG.PRED-2SG
 'Are you a student?' [notebook]

Note that in both the examples above, the final *i* of *ri* is deleted before *iso*. This raises the question whether it is not better to speak of a morpheme *r* instead of *ri*. The main reason for assuming that we have to do here with a morpheme *ri*, however, has to do with the analogy to examples like (69) below. This example shows two juxtaposed noun phrases, the second of which consists of a headless relative clause. The relevant point here is that the first noun phrase is closed off with *ri*, which marks the NP as generic:

- (69) [*Waimkun ri*]_{NP} [*veyáyun iyamre*]_{NP} *ke?*
 wai-mkun ri vey-áyun i-ya-m-re ke
 canoe-little GEN.SG REL-row 3SG-SPC-that to.here-land DOUBT
 'What is rowing towards us at the land here is that a small canoe?' [TWfb]

For plurals, the rule is basically the same as for singulars, in that specific noun phrases are used for the expression of equation, while generic noun phrases serve the expression of proper inclusion. Whereas singular generic noun phrases are marked with *ri* 'GEN.SG', it is the lack of a determiner (i.e. a specificity marker) that 'marks' a plural noun phrase as generic. Illustrations of plural nominal clauses are given in (70) and (71). While (70) is an example of an identificational clause, having a specific noun phrase preceding the copula, (71) illustrates the use of a generic determiner-less noun phrase to express proper inclusion.

- (70) *Kawasa ebur ansya siso sine, (...)*
 kawasa e-bur an-s-ya s-is-o s-i-ne
 people REL-leave GIV-3PL.AN-SPC 3PL.AN-PRED-O 3PL.AN-SPC-this
 'These are the people that have left, (...)' [KOgh]

²⁵ The formative *ri* 'GEN.SG', then, is presented here as NP-final. In fact, it is not entirely clear whether the formative should be considered part of the preceding NP or part of the following predicative pronoun. In this thesis, I argue that *all* nominal clauses based on *is* follow the pattern given in Figure 7. In this pattern, an NP is followed by a pronoun, which again is followed by the predicator *is~i*. Following this pattern, *ri* should be considered as NP-final (which then is followed by a pronoun *i*, which again is followed by the predicator *is~i*, cf. Table 2). On the other hand, when being asked to speak slowly, a Biak speaker would pause in between the noun and the following *ri* 'GEN.SG', and not directly after *ri*, which indicates that *ri* is somehow 'felt' to belong to the predicative pronoun and not to the NP. The formative *ri*, then, is a clitic, which is syntactically part of the preceding NP, but phonologically part of the following word.

- (74) **Gelas** *bedisine*
 [gelas **be=d**]_{NP-is-i-ne}
 glass 2SG.POS=3SG-3SG.PRED-SPC-this
 'This here is your glass' [el]

There may be a difference in function between the use and non-use of a determiner (plus person marker). It is perfectly possible that elision is preferred in case the initial NP is in focus, as in (74) above, while the use of the Determiner *ya* (plus person marker) is associated with topicality of the NP in question. More research is necessary, however, to confirm this claim.

In the remainder of this chapter, the different *iso*-related constructions will be presented. While 8.5.4 presents constructions using the full copula *iso*, 8.5.5 discusses predicative pronouns, which all contain the predicator *is~i*. Section 8.6, finally, will present the existential pronouns, which are formally closely related to a subset of the predicative pronouns.

8.5.4 Copula *iso*

As was stated in 8.5.2 above, it is not always easy to decide for nominal clauses which part constitutes the subject, and which part the predicate. This is especially true for the *iso*-based constructions, but there seems to be a tendency for a predicate-subject structure. Clear examples of predicate-subject structure are those in which the pre-copula position is taken by a question-word, as in the following example, where it is taken by *mansei* 'who'.

- (75) *Mansei iso iyafa?*
 mansei is-o i-ya-fa
 who 3SG.PRED-O 3SG.SPC-that-to.there
 'Who is (the one) passing there?' [notebook]

Most of the attested *iso*-based clauses are equating, and the corpus contains only a handful of instances of *iso*-based clauses expressing proper inclusion. First consider the following example, which was constructed by the researcher and considered acceptable by my language helpers.

- (76) *Guru riso aw*
 guru ri=is-o aw
 teacher GEN.SG=3SG.PRED-O 2SG
 'You are a teacher' [el]

While the relatively simple clause above was given in elicitation, the only examples of *iso*-based constructions expressing proper inclusion are those where []_{NP-ri= is-o} 'GEN.SG=3SG.SPC-O' is used as part of a cleft construction. In these cleft constructions, the material following the copula can be analyzed as a headless relative clause (RC), more on which can be found in 10.3.2. Examples are given in (77) and (78) below. In both cases, the NP preceding the copula expresses the class to which the referent of the post-copula NP belongs.

(77) *Sraibon esúr riso ikvaryam i.*
 [srai-bon e-súr ri]_{NP-is-o} [[i-k-varyam]_{RC} i]_{NP}
 coconut-fruit REL-bud GEN.SG=3SG.PRED-O 3SG-use-stock 3SG.SPC
 'It was a budding coconut-fruit with which he stocked him.' [MSkc]

(78) *Karui eba emarvak riso*
 [karui e-ba e-marvak ri]-is-o
 stone REL-big REL-heavy GEN.SG=3SG.PRED-O

[insandya irov kukrya]_{NP} voi (...)
 insandya i-rov kukr= ya voi
 just 3SG-fly with=3SG.SPC but
 'It was a big stone with which he just flew, but (...)' [Kode]

While the examples above were illustrations of clauses expressing proper inclusion, the rest of this section is concerned with *iso*-based clauses expressing equation, expressed by clauses in which the NP preceding *iso* is specific. An example is given with the noun phrase *rovean epyanya* 'easy food' in (79). It is part of a meeting in which the fishes discuss what food they should eat, because they are in danger of starving because of a famine. One of the fishes then remarks:

(79) *Yaverasa [rovean epyanya]_{NP} iso*
 ya-ve-rasa rovean e-pyan=ya is-o
 1SG-vblz-feel food REL-simple=3SG.SPC 3SG.PRED-O

[bosnkor anine]_{NP}.
 bosn-kor an-i-ne
 area.along.shore-mangrove.tree GIV-3SG-SPC-this
 'I think that the food that is easy to obtain is (found in) the mangrove area here along the shore' [MBeo]

The utterance above is a typical example of a sentence where one would be inclined to analyze the initial NP as the subject, and the post-copula NP as part of the predicate. *Rovean epyanya* 'easy food', is the topic of the discourse, which then is equated with *bosn kor anine* 'the mangrove area along the shore'. The NP following the copula, then, is the focus constituent, constituting the "new information". Given the equation of topic with subject and the equation of focus with predicate, the example above exhibits a subject-predicate structure.

Now consider (80) below, which is part of a speech held by a relative of one of my language helpers, addressing the parents of a prospective bride. He has come together with a number of people, most of who are not known to the parents. The following sentence is taken from the passage where he introduces to the parents the ones who have come with him.

(80) *Imbo, srarkasunya iso iya,*
 imbo srar-kasun=ya is-o i-ya
 indeed cross.sibling-small=3SG.SPC 3SG.PRED-O 3SG.SPC-that

<i>insape</i>	<i>swari</i>	<i>iso</i> ²⁷	<i>ine (...)</i>	...
insape	swa-r=i	is-o	i-ne	...
then	spouse-POS.3SG=3SG	3SG.PRED-O	3SG.SPC-this	...

'Well, that is his (the bridegroom's) smaller sister, and this is her husband' [BVcd]

It is possible to think of (80) above as exhibiting a predicate-subject structure. In a sense, it can be seen as a proposition about the persons that are present, deictically referred to by the pronouns following the copula. Note, however, that this sentence is a typical example of a presentational sentence, in that the entities referred to are newly introduced in the discourse. Presentational constructions are a subtype ofthetic structures, in which – in the framework given by Lambrecht – the focus is on the proposition as a whole.²⁸ Thetic sentences, then, do not have a topic-comment structure, so that it is not possible to identify a topic. Given that the subject is generally – i.e. in the absence of contrary evidence - equated with the topic, it is also not possible to identify a subject. Summarizing, I think the *iso* constructions can be mapped with several possible semantic-pragmatic structures, dependent on the context. Some of them, like (79) above, can be analyzed as subject-predicate constructions, with focus on the predicate. Other sentences, like (78) above, have a post-copula NP that is clearly discourse-topical, which is a good argument to analyze them as (mapped to) predicate-subject structures. Again others, are typically presentational, and better understood as sentence focus constructions, lacking a topic and having focus on the proposition as a whole. More on sentence-focus can be found in the discussion of the complex predicative pronouns in 8.5.5.3.

The corpus contains a few instances where the material preceding the copula consists of a nominalized verbal clause. An example is the following:

(81)	<i>Aya</i>	<i>ine</i>	<i>yaro</i>	<i>kwarya</i>	<i>iso</i>	<i>ine</i>
	aya	i-ne	ya-ro	kwar=ya	is-o	i-ne
	1SG	SPC-this	1SG-LOC	already=3SG.SPC	3SG.PRED-O	3SG.SPC-this

' Me here, this is my death!' Lit. 'This is I am dying already!'

The copula is regularly used as part of a cleft-construction, whose structure is further explained in 10.3.5. Examples of clefts are given in (82) below, where the structure of the last cleft (running from *insis* through *sekretarisi*) has been indicated. The sentence is again part of the narrative about the meeting of the fishes. The narrator introduces the chairman and the secretary and identifies them with the *arar*-fish and the *sis*-fish.

(82)	<i>Imbarya,</i>	<i>inarar</i>	<i>iso</i>	<i>eveketua,</i>
	imbarya	in-arar	is-o	e-ve-ketua
	therefore	fish-<k.o.fish>	3SG.PRED-O	REL-vblz-elder

<i>keroya,</i>	ketua	<i>ro</i>	mejaya,
ker=o=ya	ketua	ro	meja=ya
part=nonSP.SG=3SG.SPC	elder	LOC	table=3SG.SPC

²⁷ A sequence of *i* and *i* is realized as *i*, so that the sequence in question is realized as [swarisoine].

²⁸ According to Lambrecht, the point of presentational constructions is not to predicate over a given entity, but to introduce a new entity into discourse (Lambrecht 1994: 39, 177).

<i>[insis]</i> _{NP}	<i>iso</i>	<i>[evesekretarisi]</i> _{NP}
insis	is-o	e-ve-sekretaris=i
fish-<type.of.fish>	3SG.PRED-O	REL-vblz-secretary=3SG.SPC

'So the *inarar* was the elder, a sort of, the chairman (lit. elder at the table), the *insis* was (the one who was) the secretary' [MBdt].

The rest of this section discusses some additional uses of *iso*, some of which do not fit into the structure given in Figure 6 above. First, *iso* can be used as a sort of 'pause-filler' preceding a nominal constituent, probably to offer the speaker some time to activate the referent he is searching for. An example of this use is the following. The first follows the introductory sentence of a personal report on the earthquake that struck Biak in 1996.

(83) *Fafisuya* *aya, yaroro iso Jayapura.*
 fafisu=ya aya ya-ro is-o Jayapura
 time=3SG.SPC 1SG 1SG-LOC 3SG.PRED-O Jayapura
 'At that time I, I was in ... Jayapura.' [GSac]

The combination *isoine* is often used to introduce a synonymous, hyperonymous or hyponymous nominal, given as a kind of explanation to the addressees. Examples are the following. The first was given as explanation to the researcher, the other to the addressees at a feast.

(84) *Ifrúru* *makvakya, iso ine bóme,*
 i-frúr=u makvak=ya is-o i-ne bóm
 3SG-make=U <k.o.spear>=3SG.SPC 3SG.PRED-O 3SG.SPC-this spear
 'He made a *makvak*, that is: a spear' [MMan]

(85) (...) *emarisen eveyáksoyu munara ine (...),*
 e-marisn e-vey-ák-so=u munara i-ne
 REL-enjoy REL-VBLZ-also-accompany=U official.happening 3SG.SPC-this

<i>iso</i>	<i>ine</i>	pesta	adat.
is-o	i-ne	pesta	adat
3SG.PRED-O	3SG.SPC-this	feast	tradition

'(My welcome to the people) who have liked to also attend this official happening, that is to say a traditional feast.' [DAeb]

Finally, it is also attested to introduce an explanation of a non-nominal constituent, as in the following words spoken by a banana tree.

(86) *Yaveguna* *fa ro si, iso ine*
 ya-ve-guna fa ro si is-o i-ne
 1SG-VBLZ-useful to.there LOC 3PL.ANIM 3SG.PRED-O 3SG.SPC-this

<i>yamarm</i>	<i>indo san</i>	<i>bon ayena</i>
ya-marm	indo san	bon aye=na
1SG-bear.fruit	then 3PL.AN-eat	fruit 1SG.POS=3PL.INAN.SPC

'I am useful for them, that is to say: when I bear fruit they eat my fruits.' [PMbq]

8.5.5 Nominal clauses formed on the base of predicative pronouns

8.5.5.1 Overview

Trying to elicit the paradigm for the proper inclusion relation, my language helpers provided me with the clauses presented in the second column of Table 2 below. As most of the forms in bold contain a simple pronoun, I will refer to them as simple predicative pronouns. The column containing the clauses provided by the language helpers are followed by four columns providing the analysis of the simple pronouns, while the last column presents the translation.

Table 2 Paradigm for the relation of proper inclusion, as provided by informants

SING.	Example	Analysis				Translation
1SG	<i>guru risaya</i>	<i>ri</i>	<i>i</i> ²	<i>is</i>	<i>Aya</i>	'I am a teacher'
		GEN.SG	3SG	PRED	1SG	
2SG	<i>guru risaw</i>	<i>ri</i>	<i>i</i>	<i>is</i>	<i>Aw</i>	'you are a teacher'
		GEN.SG	3SG	PRED	2SG	
3SG	<i>guru riri</i>	<i>ri</i>	<i>i</i>	<i>i</i>	<i>ri~rya</i> ¹	'he is a teacher'
		GEN.SG	3SG	PRED	ANAPH	
NONSG.						
1DU.EXCL	<i>guru sinu</i>		<i>si</i>	<i>i</i>	<i>nu</i>	'we two (excl) are teachers'
			3PL.AN	PRED	1DU.EX	
1DU.INCL	<i>guru siku</i>		<i>si</i>	<i>i</i>	<i>ku</i>	'we two (incl) are teachers'
			3PL.AN	PRED	1DU.IN	
1PL.EXCL	<i>guru sinko</i>		<i>si</i>	<i>i</i>	<i>nko</i>	'we(excl) are teachers'
			3PL.AN	PRED	1PL.EX	
1PL.INCL	<i>guru siko</i>		<i>si</i>	<i>i</i>	<i>ko</i>	'we (incl) are teachers'
			3PL.AN	PRED	1PL.IN	
2DU	<i>guru simu</i>		<i>si</i>	<i>i</i>	<i>mu</i>	'you two are teachers'
			3PL.AN	PRED	2DU	
2PL	<i>guru simko</i>		<i>si</i>	<i>i</i>	<i>mko</i>	'you are teachers'
			3PL.AN	PRED	1DU.EX	
3DU	<i>guru suiri</i>		<i>su</i>	<i>i</i>	<i>ri~rya</i> ¹	'the two of them are teachers'
			3DU	PRED	ANAPH	
3PC	<i>guru skoiri</i>		<i>sko</i>	<i>i</i>	<i>ri~rya</i> ¹	'the three of them are teachers'
			3PC	PRED	ANAPH	
3PL.AN	<i>guru siri</i>		<i>si</i>	<i>i</i>	<i>ri~rya</i> ¹	'they are teachers'
			3PL.AN	PRED	ANAPH	
3PL.INAN	<i>rum nairi</i>		<i>na</i>	<i>i</i>	<i>ri~rya</i> ¹	'it 's houses'
			3PL.INAN	PRED	ANAPH	

1: the allomorph *rya* for third person is used in both prepausal and non-prepausal position, while the use of the allomorph *ri* is restricted to prepausal position.

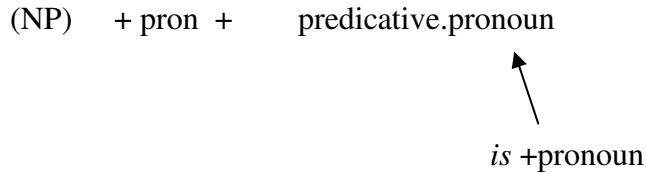
2: the 3SG pronoun *i* always merges with the following *is*, thus forming a portmanteau morpheme *is* '3SG.PRED'. Although it is glossed as such elsewhere in the thesis, the full form *i* has been presented here to show the paradigmatic relation to 3PL.AN *si*.

Considering the table above, a number of interesting observations can be made. First, comparison of the plural and singular forms shows that singular generic noun phrases are marked with *ri* 'GEN.SG', while plural generic noun phrases do not have a final determiner. Another thing to be noted is the allomorphy of the predicator *is*; while *is* 'PRED' is used before vowels, *i* is used before consonants. Finally note the deviating forms of the 3rd person pronouns.

In the rest of this section I will motivate the analysis presented in the table above. First, I will give arguments for the assumption that *is* and *i* are allomorphs. Then, I will discuss the deviation of 3rd person predicative pronouns compared to 1st and 2nd person predicative pronouns. The best way to motivate the analysis is by comparing the paradigm above with a

number of other paradigms, which will be presented below. First, however, recall the general structure of constructions based on predicative pronouns given in Figure 7 above and repeated here as Figure 11.

Figure 11 Nominal clause formed with predicative pronoun



Now consider the following paradigm, in which the position following the copula is taken by a complex pronoun (cf. footnote 14). The complex pronoun *i-ne* '(3SG.)SPC-this', following the copula, is illustrative for all possible 3SG complex articles, which have been discussed in 3.2.1 and 3.2.3. Although the form of the pronoun is similar to that of a 3SG-pronoun, the first formative *i* does not express person and number, but only specificity, given the fact that it generalizes over all persons (e.g. 1st person *ayaisine*) and all numbers (e.g. dual *gurusuisine*). The table gives equational clauses for 1st and 2nd singular, both an equational clause and a proper inclusion clause for 3rd singular, and only proper inclusion clauses for the plural forms.

Table 3 Complex deictic predicative pronouns (shading should be read as: not (at)tested)

	form (example)	analysis	gloss	translation
1SG	<i>ayaisine</i>	<i>aya-is-i-ne</i>	1SG-PRED-SPC-this	'this here is me'
2SG	<i>awsiya</i>	<i>aw-s-i-ya</i> ¹	2SG-PRED-SPC-that	'that is you' ²⁹
3SG, gen.	<i>guru risine</i>	<i>ri= i-is-i-ne</i>	GEN.SG=3SG-PRED-SPC-this	'this here is a teacher'
3SG, spc	<i>guru M isine</i>	<i>i-is-i-ne</i>	3SG-PRED-SPC-this ³⁰	'this here is teacher M'
1DU.EXC ↓ 2PL				
3DU	<i>guru-suisine</i>	<i>su-is-i-ne</i>	3DU-PRED-SPC-this	'these two are teachers'
3PC	<i>guru skoisine</i>	<i>sko-is-i-ne</i>	3PC-PRED-SPC-this	'these three are teachers'
3PL.AN	<i>guru sisine</i>	<i>si-is-i-ne</i>	3PL.AN-PRED-SPC-this	'these are teachers'
3PL.INAN	<i>gereja naisine</i>	<i>na-is-i-ne</i>	3PL.INAN-PRED-SPC-this	'these are churches'

1: the initial *i* of *is* 'PRED' is elided after *aw*, cf. Table 4 and 5

The data in this table support the assumption that *is* is used before vowels, while *i* is used before consonants. This is very clear when we compare the 3rd person deictic predicative pronouns in Table 3 with those in Table 2, where *is-ine* stands in a paradigmatic relation to *i-ri* (as, for example, in *guru su-is-i-ne* 'the two here are teachers' vs *guru su-i-ri*).

It is now time to turn to the second point to be clarified, which is the deviation of the 3rd person forms in Table 2 (*iri, suiri, skoiri, siri, nairi*, instead of the expected *isi, sisu, sisko, sisi* and *sina*) with respect to the other forms. There are two things that need to be noted. First, in elicitation, the dual forms *sisu* and the paucal form *sisko*, formed analogous to the 1st and 2nd person nonsingular forms (*si-nu* etc.) were considered acceptable variants of the first given

²⁹ In fact, the example given me was the following: *Piet, aw-s-i-yás-ya* 'Piet, are you the one up there', which could be uttered, for example, by someone hearing the addressee making noise upstairs.

³⁰ Elsewhere, I will gloss this form as **is-i-ne** '3SG.PRED-3SG.SPC-this' instead of **i-is-i-ne** '3SG-PRED-3SG.SPC'.

predicative pronouns *sui* and *skoi*. However, the analogous 3SG form *i-is-i*³¹ and 3PL.AN-form **s-i-si* '3PL.AN-PRED-3PL.AN' are both unacceptable. The reason for this probably is that they are indistinguishable from the locative-existential forms *i-is-i* '3SG-PRED-that' -> 'he is there' and *s-is-i* '3PL.AN-PRED-that' -> 'they are there', respectively (cf. section 8.6). That it is indeed the possible confusion with the existentials that blocks the use of predicative **i-is-i* and **s-i-si* is clear from the fact that the use of more complex 3SG or 3PL.AN pronouns following *is* is fully acceptable, as these forms cannot be confused with the existential. Thus, while **i-is-i* '3SG-PRED-3SG' is ungrammatical, a more complex form like *i-is-i-ne-(ra)* '3SG-PRED-3SG.SPC-this-(to.over.there)' is fully acceptable. The 3PL.INAN form **s-i-na*, finally, is unacceptable because initial *s* is associated with animateness.

Although it is clear why the forms **isi*, **sisi* and **sina* are unacceptable, it still needs to be made clear why the language makes use of the formative *ri* instead. To account for the use of *ri*, one should take into consideration the paradigm given in Table 4, which presents the so-called anaphoric predicative pronouns, further discussed in 8.5.5.4 below.

Table 4 Anaphoric predicative pronouns

	form	analysis	gloss	translation
1sg	<i>aya iri~rya</i> ¹	aya i-ri	1SG PRED-ANAPH	'it is me'
2SG	<i>aw ri~rya</i> ²	aw ø-ri	2SG PRED-ANAPH	'it is you'
3SG	<i>i ri~rya</i>	i i-ri	3SG PRED-ANAPH	'it is him'
1DU.EXC	<i>nu iri~rya</i>	nu i-ri	2DU PRED-ANAPH	'it is the two of us'
etc.				

1 The variant *ya* is used in non-prepausal position.

2: the initial *i* of *i* 'PRED' is elided after *aw*. Cf. Table 3 and 5

This paradigm confirms the distribution just given of *is* 'PRED' and *i* 'PRED', in that here again we find *i* being used before consonants. As will be further illustrated in 8.5.5.4 below, the basic function of *ri* is anaphoric, in that it refers to entities that are somehow discourse-topical. It is not surprising that the *ri*-based anaphoric forms have come to be suppletive for 3rd person **isi* etc., as unstressed pronouns are discourse-topical by their very nature (cf. Lambrecht 1994:172). More on the use of anaphoric *ri* can be found in 8.5.5.4, while the other simple-pronoun-based predicatives will be given attention in the following section.

8.5.5.2 Simple predicative pronouns

This section discusses predicative pronouns with a non-complex personal pronoun as subject, in short referred to as simple predicative pronouns. A typical example of the use of such a predicative pronoun is given with *(ri=)isaya* in (87).³² The nominal clause below is a kind of saying in which the speaker humbles himself by presenting himself as a kind of cricket.

- (87) *Aya ma, Krei ampam risaya (...)*
 aya- ma [Krei ampam ri=is-aya
 1SG- TOP Krei <k.o.cricket> GEN.SG=3SG.PRED-1SG
 'As to me, I am (only) a cricket in the Krei clan (...)' [DAfi]

³¹ For expository reasons, the spelling *i-is-i* '3SG-PRED-that' here is preferred over the spelling *is-i* '3SG.PRED-that' used elsewhere in the book.

³² As stated in footnote 25, strictly spoken the initial *ri* is syntactically part of the preceding NP but phonologically part of the predicative pronoun.

In the example above, the preclausal noun phrase *aya ma* constitutes the frame for the clause to come, just as was described for the nominal clauses in 8.4 above. A comparable example is given with *ine ido* and *aya ido* in the following clause. We will come back to the use of *ri* 'ANAPH' (as in *i-ri* '3SG.PRED-ANAPH') in 8.5.5.4.

- (88) *Vo* *ine* *ido,* *mem*³³ *iri,*
 vo i-ne ido me-m i-ri
 SIM 3SG.SPC-this THEM cross.uncle-POS.2SG 3SG.PRED-ANAPH
- aya* *ido,* *snam* *isaya.*
 aya ido sna-m is-aya
 1SG THEM mother-POS.2SG 3SG.PRED-1SG
- 'As for this, he is your uncle, as for me, I am your mother.' [TWde]

Whereas for the *iso*-based constructions it is often difficult to determine which nominal is the predicate and which is the subject, it is clear that the great majority of simple-pronoun predicative pronouns exhibit a predicate-subject structure. It is clear that most constructions made with simple-pronoun predicative pronouns should be interpreted as assertions about the entity referred to by the post-copula NP. Example (87) above, for example, is not an assertion about *Krei ampam* 'a Krei-cricket', but about ego, which is equated with (or properly included in the class of) *Krei ampam*. Likewise *mem iri* 'he is your uncle' and *snam isaya* 'I am your mother' in (88) are assertions about post-copula *ri* 'this' and *aya*, which are equated with *mem* 'your cross-uncle' and *snam* 'your mother'.

Two further examples of simple-pronoun predicative constructions expressing proper inclusion are the following. The first example is uttered by a woman during a speech, in which she reports how her husband advised her not to visit the meeting:

- (89) *Wáwós* *awer* *va* *vín* *risaw.*
 w-áwós awer va vín ri=is-aw
 2SG-speak not because female GEN.SG=3SG.PRED-2SG
- 'Do not talk, for you are a woman.' [VYmf]

The other example is taken from the Manarmaker story, where it is told how a group of boys start to sneer at the old and scabby man. The nominal clause *snonkaku siko* 'we are (all) humans' is given as comment by the narrator, as a kind of excuse for the children's behavior.

- (90) *Ma* *sra* *mundi* *ido,*
 ma s-ra mu-n-ri ido
 and 3PL.AN-go PATH-to.o.there-out THEM
- snonkaku* *siko* *indya,*
 snonkaku s-i-ko indya
 human.being 3PL.AN-PRED-1PL.INC so

³³ Inalienable nouns referring to kin, like *mem(i)* could in these constructions also be analyzed as ending in a 3SG pronoun *i* that is subsequently elided, cf. section 6.2.2.1.

koraryae naiswara (...)
 ko~ra~ryae na-is-wa-ra
 ~RED~mock PL.INAN-PRED-over.there-to.o.there
 'And when (the boys) came out (of the village) – we are humans, so ... a mocking all over the place (lit. mocking was over there moving to over there (...))' [MSdz]

The following is uttered by a person at the start of his speech to the parents of a prospective bride. Here, the relation expressed is one of equation.

(91) *Sinan simu indya mufawi kwar.*
 sinan s-i-mu indya mu-fawi kwar
 parent 3PL.AN-PRED-2DU so 2DU-know already
 'You two are (her) parents, so you know (the reason of my coming) already.' [BVaa]

In all of the examples above, the predicate is the focus-constituent, in that it is that part of the clause that represents the new information. In line with this, it is not surprising that this position can also be taken by interrogative pronouns, as in the following example:

(92) *Mansei isaw*
 mansei is-aw
 who 3SG.PRED-2SG
 'Who are you?' [el]

8.5.5.3 Complex predicative pronouns

A partial paradigm for the complex predicative pronouns was given in Table 3 above, repeated here as Table 5. The use of the demonstratives *ne* and *ya* is illustrative for the use of all formatives that can be used to make up a complex (3SG) pronouns, which are discussed in 3.2 .2 and at several places in Chapter 9 on Space.

Table 5 Complex predicative pronouns (shading should be read as: not (at)tested)

	form (example)	analysis	gloss	translation
1SG	<i>ayaisine</i>	<i>aya-is-i-ne</i>	1SG-PRED-SPC-this	'this here is me'
2SG	<i>awsiya</i> ¹	<i>aw-s-i-ya</i>	2SG-PRED-SPC-that	'that is you' ³⁴
3SG, gen.	<i>guru risine</i>	<i>ri=i-is-i-ne</i>	GEN.SG=3SG-PRED-SPC-this	'this here is a teacher'
3SG, spc	<i>guru M isine</i>	<i>i-is-i-ne</i>	3SG-PRED-SPC-this ³⁵	'this here is teacher M'
1DU.EXC ↓ 2PL				
3DU	<i>guru-suisine</i>	<i>su-is-i-ne</i>	3DU-PRED-SPC-this	'these two are teachers'
3PC	<i>guru skoisine</i>	<i>sko-is-i-ne</i>	3PC-PRED-SPC-this	'these three are teachers'
3PL.AN	<i>guru sisine</i>	<i>si-is-i-ne</i>	3PL.AN-PRED-SPC-this	'these are teachers'
3PL.INAN	<i>gereja naisine</i>	<i>na-i-s-i-ne</i>	3PL.INAN-PRED-SPC-this	'these are churches'

1: the initial *i* of *is* 'PRED' is elided after *aw*, cf. Table 3 and 4.

Just as we have seen for the simple-pronoun predicative pronouns above, the basic structure of complex deictic predicative pronouns is one in which the material preceding the copula can

³⁴ In fact, the example given me was the following: *Piet, aw-s-i-yás-ya* 'Piet, are you the one up there', which could be uttered, for example, by someone hearing the addressee making noise.

³⁵ Elsewhere, I will gloss this form as **is-i-ne** '3SG.PRED-3SG.SPC-this' instead of **i-is-i-ne** '3SG-PRED-3SG.SPC'.

be considered the predicate, while the post-copula material constitutes the subject. An example illustrating this structure, is the following, where the predicate is formed by the question-word *rosai*. The question is uttered by a woman, who hears another woman telling about someone who thought 'that we have to eat the skin and throw away the flesh'. Not knowing what kind of fruit the woman is telling about, the speaker asks the question given in (93) below. In this case, the post-copula subject *i-ne* '3SG.SPC-this' refers to the topic of discourse (the fruit), while the predicate *rosai* asks for the identity of the subject's referent.

- (93) [Question] *Rosai isine?* [Answer] **Geyawas.**
 rosai is-i-ne B geyawas
 thing-what 3SG.PRED-SPC-here <k.o.fruit>
 'What is this? *Geyawas.*' [YWdw]

In the example above, then, the post-copular *ine* is not only the subject and therefore 'sentential topic' (given the equation stated above), but also discourse-topical, in that it refers to the entity that was being talked about. This is also the case in (94) below, which is part of a passage that describes how people on an island have been watching something coming close. As soon as it is close, they say what is cited in the sentence below. The subject *ine* thus refers to a discourse-topical entity, the 'thing coming close', which the predicate assigns to the class of *daryu*-canoes.

- (94) *Ba, wai daryur risine!*
 ba wai daryur ri=is-i-ne
 hey canoe <type.of.canoe> GEN.SG=3SG.PRED-SPC-this
 'Hey, this here is a *daryur*-canoe!' [TWfj]

Whereas (93) and (94) show that the complex presentative pronouns can very well be used to refer to discourse-topical entities, they can also be used to introduce an entity into discourse. An example of this use is given with (95). The clause is uttered by one of a group of people gathered in the area in between the house and the road, when a tradesman is still relatively far away but coming close. Here, the clause has a double function. Not only does it – strictly semantically spoken – assign 'the entity coming' to a certain class, the sentence is also used to introduce this entity into discourse. Although a number of the people may have seen the tradesman coming close, this is not true for all of them. This is clear from the rest of the sentence, which explains who the speaker is referring to. The pragmatic load of the sentence is given with the free translation, while a more literal translation is added after.

- (95) **Cakar bongkar risiwama=ne**
 cakar bongkar ri= is-i-wa-ma=ne
 claw demolish GEN.SG=3SG.PRED-3SG.SPC-over.there-to.here=ne

imrán *ro* *diwamrae!*
 i-mrán ro di-wa-m-ra-e
 3SG-walk LOC place-over.there-to.here-sea=*e*³⁶
 'Look, there's one of these wrecking claws³⁷ coming! He walks over there in this direction seawards!' (Lit. 'The one coming there is a *cakar bongkar*, ...') [YWdd]

The post-copular *iwamane* 'the one coming over there' in (95), then, is not topical, but introduces a new entity into the discourse. Given the strong tendency for a subject to coincide with the discourse-topic, it may seem a little counter-intuitive to consider a case like this as a subject. Nevertheless, I think that in most of the attested examples it is possible to consider the post-copular material as the subject, in that the rest of the clause expresses what is true about this subject (cf. Lambrecht 194:232). Examples like (95) above are typical cases of *thetic* or *presentative* constructions, which are not to be seen as assertions about a topical subject, but rather as cases in which the assertion coincides with the entire proposition. The focus of such constructions is on the proposition as a whole. Another example of such a presentative or thetic construction is given in (96). The clause is part of a report, in which the speaker tells how she presented the addressee with a letter sent to her. Again, it is clear that the subject (*inei* 'this') is not discourse-topical, and that the focus is on the proposition as a whole.

(96) *Talitha* **surat** *fyarem* *ve*
 Talitha [surat f<y>arem ve
 Talitha letter <3SG>send to

*awnisine!*³⁸
 aw=n=i]_{NP}- is-i-ne
 2SG=SEP=3SG.SPC-3SG.PRED-SPC-here
 '(This) here is a letter that Talitha has sent you.' [YWbb]

While in all of the examples (93) through (96) the focus was either on the proposition as a whole or on the predicate preceding the copula, the corpus also contains examples where the material *preceding* the copula is discourse-topical, while the post-copula material expresses 'new information'. One of such examples is given with (98). As *batawe* 'cassava' has been mentioned in the preceding (97), it is clear that *bataweya* 'cassava=3SG.SPC' is also topical in (98). In line with the topical nature of *bataweya* and the focused nature of *ine*, the sentential accent is on *ine*.

³⁶ The allomorphs *ne* and *e* are uttered with a relatively loud and suddenly rising intonation and function to call for the attention of the hearer. Further research is needed to find out whether this formative can be equated with the question marker (*n*)*e* described in 3.11.

³⁷ According to one of my language helpers, the expression *cakar bongkar* 'wrecking claw' is used as a nick name for 'people walking along the street like this' (probably to indicate that they try to financially destroy their buyers.)

³⁸ While the form given in (96) was the form heard by me when I checked the example back in the Netherlands, at the time of transcription my informant gave the 'fuller' version (...) *ve aw=ya is-i-ne* 'to 2SG=3SG.SPC 3SG.SPC-SPC-this'

(97) *Ya, mboi ine ido nkór ve batawe.*
 ya imboi i-ne ido nk^h-ór ve batawe
 yes but 3SG.SPC-this THEM 1PL.EX-call as cassava
 'Yes, but this one here they call cassava.' [ATah]

(98) [Bataweya]_{NP} *isine,*
 batawe= ya is-i-ne
 cassava=3SG.SPC 3SG.PRED-SPC-here

terus, *ransyoya i eduv iwa,*
 terus ransyo=ya i e-duv i-wa
 then sweet.potato=3SG.SPC 3SG REL-creep 3SG.SPC-over.there

ransyorámna naiso nane.
 ransyo-rám=na na-is-o na-ne
 sweet.potato-leaf=3PL.INAN.SPC 3PL.INAN-PRED-O 3PL.INAN.SPC-this
 'This here is the cassava, then, a sweet potato is that over there that creeps, these are the sweet potato leaves.' [ATah]

It is clear, then, that one and the same morphosyntactic structure (i.e. nominal clauses based on complex predicative pronouns) can be mapped to different pragmatic structures. Summarizing, the complex predicative pronoun construction can in general be thought of as a predicate followed by a subject. Pragmatically, the pre-copula material is usually in focus, as in (93) and (94), while in some cases the focus is on the proposition as a whole, as in (95) and (96). In a more limited number of cases, however, only the post-copula material is in focus, as is the case in (98).

Before finishing this section, it is good to note an important difference between complex deictic predicative pronouns on the one hand, and the locative-existentials to be discussed in 8.6.³⁹ First consider (99)

(99) "A, *Wilco rya ma,*
 A Wilco r<y>a ma
 *** Wilco <3SG>go to.here

na mesrdi ido isyama"
 na mesr=ri ido is-ya-ma
 then day=ANAPH THEM 3SG.PRED-that-to.here
 'Ah, Wilco is coming, tomorrow he will come' [YWaa]

In the sentence above, it would be odd to replace the locative existential *isyama* with the deictic complex predicative pronoun *isyama*. The latter would evoke the picture of Wilco visibly (or audibly) coming at the moment of speaking, as an entity that could be pointed at. The locative-existentials, on the other hand, are typically used to predicate over non-visible entities.⁴⁰ Finally note the following, elicited example, containing the predicative pronoun

³⁹ My data seem to point towards dialectal differences at this point, however.

⁴⁰ In line with this, note that in the elicitation sessions with persons moving at several positions at a football field described in 9.4.1, speakers always used the complex-deictic presentative pronouns, and disapproved of the use of locative-existentials.

isiyama. This sentence can only be used in case the taxi is either visible, or audible – in other words: precisely locatable.

- (100) **Taksi** *Yoel* *vyanisiyama* *ke?*
 taksi *** v<y>=an-is-i-ya-ma ke
 taxi *** <3SG>POS=GIV-3SG.PRED-SPC-that-to.here DOUBT
 'Is it Yoels taxi that is coming?' [e]

8.5.5.4 More on the use of anaphoric *ri*

This section gives some comments on the form and function of the formative *ri* 'ANAPH' and on the distribution of *ri*=based predicative pronouns. First, it should be noted that *ri* 'ANAPH' has an allomorph *rya*. The distribution of the two allomorphs is analogous to that of the specifiers *i* and *ya*, described in 5.2.1. While *ri* is used in prepausal position only, *rya* is used in other positions too. Second, the formative *ri~rya* is used also in combination with the formative *di* 'place', which is used in the formation of deictic locative nouns. Thus, the corpus not only contains the deictic locative nouns *di-ne* 'PLACE-this', *di-ya* 'PLACE-that' and *di-wa* 'PLACE-that.o.there', but also the anaphoric locative noun *di-ri*.⁴¹ This anaphoric locative noun can be used, for example, to close off a story, as in the following example:

- (101) *Imnai* *ro* *diri*.
 i-mnai ro di-ri
 3SG-stop LOC place-ANAPH
 'It stops at this place (i.e. the place that we have come to.)' [IMbm]

The anaphoric locative noun is often used as complement of the preposition *ra*. In this prepositional phrase, *ri* refers back to the just mentioned entity. An example is the following:

- (102) *Dárfararúr* *kukr* *si* *ra* *dirya*
 d-ák-f~ara~rár kukr si ra di-rya
 3SG-also-~RED~make with 3PL.ANIM along place-ANAPH
 'It (this clan) also works with them in the just mentioned way'

A very clear example of the anaphoric nature of *ri~rya* is given with the rather common expression *radirya ido*, which can best be glossed as 'in that case / that being the case' or 'given this', as in (104) below.⁴² It is part of a joke, in which a person, having a pig in a bag with him, waits for a taxi to pick him up. A taxi has stopped, and the driver has asked the person what is in the bag. The story then proceeds with the sentences given in (103) and (104) below.

⁴¹ The anaphoric deictic noun *di-ri* 'place-anaph' should not be confused with the deictic locative noun *di-ri* 'place-out'. The former has stress on *ri*, while the latter has stress on *di*.

⁴² I have analyzed the expression *ra di-rya* as 'along place-this'. It should be noted, however, that one also finds the realization [rarirya] alongside [radirya]. Given that dissimilation of a sequence of two *r*'s is attested occasionally elsewhere (as in *ma~ras~risn* 'RED-enjoy' alongside *marasdisn*, *raw~rowr* 'RED~hear' alongside *rawdowr*), whereas assimilation of *d* to *r* is not attested, it might be better to analyze the form as *rari i-rya* 'situation 3SG.SPC-ANAPH', with dissimilation of the second *r*. Irrespective of the analysis chosen, however, the formative *ri~rya* is analyzed as an anaphoric marker.

- (103) *Nogea nanya dóve*
 Nogea an-ya d-óve
 Nogea GIV-3SG.SPC 3SG-say
- "nangkabon riri."*
 nangka-bon ri=i-ri
 jackfruit-fruit GEN.SG=3SG.PRED-ANAPH
 'The Nogea said: it's jackfruit' [MTai]

- (104) **Supir** anya dóve
 supir an-ya d-óve
 driver GIV-3SG.SPC 3SG-say
- "ra dirya ido wéke."*
 ra di-rya ido w-ék
 along place-ANAPH THEM 2SG-go.up
 'The driver said: 'in that case, get in!' [MTaj]

We now turn to the use of *ri* as part of the simple-pronoun predicative pronouns presented in 8.5.5.2 above. Consider the following example, taken from a report of a fictive journey around the island Supiori. The speaker first mentions the name of the village (Orkdori) and then anaphorically refers to this village by the use of *ri*.

- (105) *Kusun wer ro Orkdo. (...)*
 ku-sun wer ro Orkdo
 1DU.INC-enter again LOC Orkdo
- Mnu epupsya iri.*
 mnu e-pups=ya i-ri
 village REL-last=3SG.SPC 3SG.PRED-ANAPH
 'We two enter again in Orkdo(ri), it is the last village.' [RSax]

The following clause is about a child that has just been introduced into the discourse. The speaker and the listener are debating on the question whether this child is a boy or a girl. According to the speaker, however, the child under discussion – which thus is a discourse topic - is a girl, as expressed in the following clause.

- (106) *Inai riri. (MS)*
 inai ri=i-ri
 girl GEN.SG=3SG.PRED-ANAPH
 'It is a girl.' [MSbd]

Some other examples of the use of *ri* are given with (107) through (109) below. The clause exemplified in (107) was used to close off an e-mail, while (108) is a common way to close off a story.

- (107) *Aya iri*
 aya i-ri
 1SG PRED-ANAPH
 'It was me.' [mail]
- (108) *Irya kwar.*
 i-rya kwar
 3SG.PRED-ANAPH already
 'That 's it.'

In the following sentence, *ri* anaphorically refers to *mankokoya* 'a chicken'.

- (109) *Isrow mankokoya,*
 i-srow man-koko=ya
 3SG-meet bird-chicken-3SG.SPC
- bati vyediri.*
 bati v<y>e=d-i-ri
 friend <3SG>POS=3SG-3SG.PRED-ANAPH
 'He met a chicken, it was his friend.' [Mlaq]

While the examples above all contain a full NP preceding the copula (or a pronoun, in the case of (107)), the corpus also contains a number of examples where the NP or pronoun does not precede but follows the predicative *iryá*, in some cases separated by an intonational break, as in (110) below.

- (110) *Irya,* [wáwós ker fa ro ras ine]_{NP}
 i-rya wa~wós ker fa ro ras i-ne
 3SG.PRED-ANAPH RED~ speak part to.there LOC day 3SG.SPC-this
 'That 's it, the (piece of) talking for this day' [PDei]

In the following clause, on the other hand, uttered at the end of a prayer, there is no intonational break between *iryá* and the rest of the clause.

- (111) *Irya nádi inkovedya.*
 i-rya nádi inko-ve=d-ya
 3SG.PRED-ANAPH pray 1PL.EX-POS=3SG-SPC
 'This has been our prayer.' [notebook]

Neither is there an intonational break in the following clause:

- (112) *Irya mnurandak roro daerah orovaido*
 i-rya mnu-randak roro daerah orovaido
 3SG.PRED.ANAPH village-begin LOC area or
- wilayah Biak Barat.**
 wilayah Biak Barat
 district Biak West
 'It is the first village in the area or district West Biak.' [RWax]

- (115) *Karuiya* *iswa* *kaker.*
karui=ya is-wa kaker
stone=3SG.SPC 3SG.PRED-over.there still
'The stone is still there.' [KOcy]
- (116) *Foro* *isya* *be* *ma* *yakpám* *ari*
for=o is-ya be ma ya-k-pám ari
fire=nonSP.SG 3SG.PRED-that 2SG-give to. here 1SG-use-light first
'If there is fire (with you) give it so that I can use it to light (my cigarette) first.' [GBel]

As will be shown in Chapter 9 on space, pronouns (or complex articles) cannot only be combined with demonstratives, but also with motion markers expressing the direction of movement, or directionals expressing the location of an entity in a certain direction with respect to another entity. The same, then, is true for the complex predicative pronouns discussed in the preceding section and the existentials under discussion here. Two examples of the use of motion markers are given with (117) and (118).

- (117) *Indya* *ikák* *anya* *iswara* *kwar.*
indya ikák an-ya is-wa-ra kwar
so snake GIV-3SG.SPC 3SG.PRED-over.there-to.o.there already
'So the snake was on his way away already.' [MIbj]
- (118) *Insape* *suisyafa (...)*
insape su-is-ya-fa
then 3DU-PRED-that-to.there
'Then the two were on their way to the place (...)' [FAas]

The following sentence contains a directional marker (*vun*):

- (119) *Indya* *Yembisesya* *sisvunwa*
indya Yembise=s-ya s-is-vun-wa
so Yembise=3PL.AN-SPC 3PL.AN-PRED-in.middle-over.there
- sro* *Numfori.*
s-ro Numfor=i
3PL.AN-LOC Numfor=iPROP
'So there are members of the clan Yembise in the middle over there (they are) at Numfor.' [TWcm]

The existential locative predicates are often followed directly by another predicate with the same subject, as in (120) through (122). As such, they seem to bring about a durative interpretation, although more research is necessary to confirm this hypothesis.

- (120) *Rofan* *vyanineno* *iswara*
rofan v<y>=an-i-ne=no is-wa-ra
dog <3SG>POS=GIV-3SG.SPC-this=also 3SG.PRED-over.there-to.o.there

iyaw rusa nanine vo skofrar káme.
 i-yaw rusa an- i-ne vo sko-frar kám
 3SG-pursue deer GIV-3SG.SPC-this SIM 3PC -run all
 'His dog was also on his way away pursuing this deer and so they walked all together.' [FYcw]

(121) *Iswamre ifrar*
 is-wa-m-re i-frar
 3SG.PRED-over.there-to.here-land 3SG-run

isarawrew mreyo (...)
 i-sa~raw~rew m-re=yo
 3SG-~RED~turn to.here-land=nonSP.SG
 'He was coming landwards running zigzagging landwards (...)' [MSfd]

(122) *Iswamrum dis*
 is-wa-m-rum d-is
 3SG.PRED-over.there-to.here-inside 3SG-creep

ro rámya mrumo (...)
 ro rá-m= ya m-rum=o
 LOC leaf-=3SG.SPC to.here-inside=nonSP.SG
 'He was coming inside and creeping over a leave inwards and (...)' [MSmg]

As set out above, noun phrases marked with *ri* 'GEN.SG' do not refer to specific entities in discourse, but are used to make reference to an entire class. In *iso*-based constructions and constructions based on predicative pronouns, then, the *ri*-marked NP is the predicate, and cannot be the subject. Given this, it is not surprising that the combination of a *ri*-marked NP plus an existential is unacceptable, as in *guru ri= is-ya* 'teacher GEN.SG 3SG.PRED-that' -> '?teacher is there'. Interestingly, however, the negative variant of *ri=-is-ya* can be used, not to negate the existence of an entity, but to negate the equation of the subject with the entity designated by the generic NP, as in the following example:

(123) **Kikir kayu risya va.**
 kikir kayu ri=is-ya va
 file wood GEN.SG=3SG.PRED-that not
 'It was not a wood file.' [YWfm]

In fact, the negated locative-existential predicate functions as the negation of anaphoric predicates. Compare the positive (124) with its negative counterpart (125):

(124) **Kandang riri. /* risya**
 kandang ri=i-ri ri=i-is-ya
 cage GEN.SG=PRED-ANAPH GEN.SG=PRED-that
 'It was a cage.' [el] / * 'A cage was there.'

- (125) **Kandang** *risya* *va!* / *rirya* *va.*
 kandang *ri=is-ya* *va* *ri=i-rya* *va*
 cage GEN.SG=3SG.PRED-that not GEN.SG=3SG.PRED-ANAPH not
 'It was not a cage!' [MBam] / 'It was not a cage.' [el]

Although the alternative given in (125) was approved in elicitation, the use of *rirya* plus negative *va* is not attested in the corpus of non-elicited speech, which only gives the use of *risya* as in (123). Other negative locative-existential predicates, with specific first NP' s, are the following:

- (126) *Na* *wapok* *fa* *rwa* *ma* *vaním*
 na wa-pok fa r<w>a ma vaním
 then 2SG-can CONS <2SG>go to.here not.yet

snaro *ras* *bedisya* *va.*
 snar=o ras be-d=is-ya va
 because=O day 2SG.POS=3SG-3SG.PRED-that not
 'Then you cannot come here yet because it is not your day.' [MYai]

- (127) *Ro* *esáeya* *mankroder* *anya* *isya*
 ro e-sáe=ya man-kroder an-ya is-ya
 thing REL-go.out=3SG.SPC bird-frog GIV-3SG.SPC 3SG.PRED-that

va *voi,* *man* *eba* *riri.*
 va voi man e-ba ri=i-ri
 not but bird REL-big GEN.SG=3SG.PRED-ANAPH
 'What came out of the hole was not the frog but it was a big bird.'

Although the negated locative predicate with a specific first NP can express non-equation, as in (126) and (127), it can also express the non-existence in a certain location, as in (128)

- (128) *Sumám* *rarvav* *ro* **botol** *anya* *ma*
 su-mám rar-vav ro botol an-ya ma
 3DU-see to.o.there-down LOC bottle GIV-3SG.SPC and

vyebei, *mankroder* *anya* *isya* *va*
 v<y>e-bei man-kroder an -ya is-ya va
 <3SG>vblz-empty bird-frog GIV-3SG.SPC 3SG.PRED-that not
 'They looked down into the bottle and it was empty, the frog was not there' [FYam]

9 SPACE

9.1 Introduction

This chapter presents the different ways in which Biak speakers refer to the location of entities in their physical environment and to the direction in which they move.¹ The Biak language offers the following formatives to signal location and direction of entities in space.

- (a) **Local and directional prepositions**, like *ro* 'at', *ra* 'along' and *ve* 'to'. The prepositions have been discussed in section 3.6.
- (b) **Local and directional verbs**, mainly *ro* 'be at' and *ra* 'go'. As discussed in 3.6.5, these verbs are closely related to prepositions of the same form, but cannot be equated with them.
- (c) The following **demonstrative roots**, discussed in 9.3 below: *ne* (close to speaker), *ya~yi* (relatively close to S or close to A), and *wa~wu* (far from speaker and addressee). The demonstrative roots are used as part of the following paradigms.
- The paradigm of **complex articles**. These complex articles are most commonly found in adnominal position, but can also function as independent pronouns (cf. section 3.2). An example is given with *iwa* in (1).

(1)	<i>Mov</i>	<i>iwa</i>	<i>snori</i>	<i>Mnubei (...)</i>
	mov	i-wa	sno-ri	Mnubei
	place	3SG.SPC-over.there	name-POS.G	Mnubei
	'The place over there its name is <i>Mnubei (...)</i> ' [KODm]			

The paradigm of complex articles also forms the basis for the formation of **deictic nouns**, **predicative pronouns** and **locative-existentials**. An illustration of a deictic noun is given with *di-ne* 'place-here' in (2) below, while (3) illustrates the use of a demonstrative as part of a predicative pronoun.

(2)	<i>Mankroder</i>	<i>ine</i>	<i>dúnuk</i>	<i>ro</i>	<i>dine.</i>
	mankroder	i-ne	d-ún-uk	ro	di-ne
	frog	3SG.SPC-this	3SG-take-in.two	LOC	place-here
	'This frog has passed though here. ' [FFbn]				

(3)	<i>Bataweya</i>	<i>isine.</i>
	batawe=ya	is-i-ne
	cassava=3SG.SPC	3SG.PRED-SPC-here
	'This here is a cassava.' [ATah]	

- (d) **Motion markers**, discussed in 9.4, which typically express the direction of movement with respect to speaker (S) or addressee (A). Roughly speaking, the motion marker *ma* expresses movement towards S. *Fa* expresses movement to a place relatively close to S but not towards S, while *ra* expresses movement directed neither towards S nor towards A. Motion markers are used as part of the following paradigms.

¹ For an interesting description of reference to Space in a related language, cf. Bowden (1997, 2002) on Taba.

- They are used as (part of complex) *motion adverbs* as in the following example:

(4) *Rya ma.*
 r<y>a ma
 <3SG>go to.here
 'He came.' (Lit. 'He went in this direction.') [MMeo]

- Like demonstratives, they may be part of *complex articles, deictic nouns, predicative pronouns* and *locative-existentials*. An example of a complex article containing a motion marker is given with *an-s-i-wa-ra* 'GIV-3PL.ANIM-SPC-over.there-to.o.there' in example (5).

(5) *ro ansiwara*
 ro an-s-i-wa-ra
 thing GIV-3PL.ANIM-SPC-over.there-to.o.there
 'the ones having gone there' [MSfs]

- (e) The following *directional roots*, discussed in 9.5: *rum* 'inside', *ri* 'outside', *re* 'landside', *ra* 'seaside', *pon* 'front', *pur* 'back', *yás~yáe* 'up', *vav* 'down', *vún* 'middle', *var* side. The directional roots are used as part of the following paradigms.

- First, they are used as part of the paradigm of *motion adverbs*, as illustrated by *m-yáe* in the following example, where *m-* is a motion marker, mentioned sub (d) above.

(6) *Isár ro wárya do ine myáeu (...)*
 i-sár ro wár=ya do i-ne m-yáe=u
 3SG-come.out LOC water=3SG.SPC inside 3SG.SPC-this to.here-up=U
 'He came out of the sea upwards to where we are now on this river (...)' [TWbh]

- Just like the demonstratives and motion markers, they may be part of *complex articles, deictic nouns, predicative pronouns* and *locative-existentials*. An example of a complex article containing a directional is given with *aniyáswa* in (7).

(7) *bonkor aniyáswa*
 bon-kor an-i-yás-wa
 hill-bone GIV-3SG.SPC-up-over.there
 'the hill up over there' [MSce]

An example of a directional as part of a deictic noun is given with *dipon* in (8).

(8) *Sikram si ro dipon.*
 si-kram si ro di-pon
 3PL.AN-store 3PL.ANIM LOC place-front
 'They buried them in the front.' [RVao]

- The paradigm of *compound directional nouns*, formed with the noun *var* 'side' as exemplified by the compound *var-pon* 'side-front' in (9):

(9)	<i>Sro</i>	motor	<i>anya</i>	<i>varpon.</i>
	s-ro	motor	an-ya	var-pon
	3PL.AN-LOC	motor	GIV-3SG.SPC	side-front
	'They [the vegetables] were at the motor's front.' [YMbr]			

- (f) *Morphologically simple locational nouns* like *do* 'inner area', *bo* 'upper area' and *bav* 'area below.' They have been dealt with in section 7.2.3 and will be briefly touched upon in 9.6 below.
- (g) *Directions of wind*, discussed in 9.7.
- (h) *Roots referring to left and right*, discussed in 9.8.

Before the various paradigms are presented, the following section first presents some theoretical background needed for the rest of the Chapter.

9.2 Theoretical prerequisites: deixis, intrinsic, relative and absolute frames of reference

This section sets up the framework that is used in the following sections, which describe reference to space in more detail. In setting up the framework, which is largely based on Levinson (1996), the various terms used will be explained one by one.

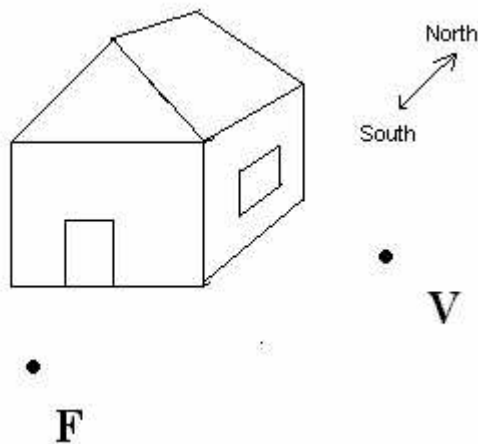
The first distinction to be made is that between the *Figure* and the *Ground* or the *Relatum*. The term Figure is used to refer to an entity that is located somewhere in Space. The term Ground or Relatum designates the entity with respect to which the located entity is located. Thus, in the sentence

'the dog is in the fridge'

the Figure 'the dog' is located with respect to the Relatum 'the fridge'.

Second, to express the spatial relation between Figure and Relatum, we need what Levinson designates as a '*coordinate system*' or '*frame of reference*' (Levinson 1996: 126,138.) The frame of reference provides the coordinates used in describing the position of the Figure in relation to the Relatum. Three frames of reference can be distinguished: an intrinsic frame of reference, a relative frame of reference and an absolute frame of reference. In the intrinsic frame of reference, inherent features of the Relatum provide the coordinates. The three systems are described on the basis of the following picture, where F is the Figure, and the house is the Relatum, and V the Viewpoint from which the position of F with respect to R can be described.

Figure 1 House as Relatum, Figure (F) and Viewpoint (V)



In an *intrinsic* system of reference, the position of F could be described as

'F is in front of the house'

meaning that F is at that side of the house which is considered as its front, irrespective of the perspective from where one watches the house, and irrespective of the question of the direction this front faces (e.g. North, South). In other words, the position of V will not influence the description. In a *relative* frame of reference, however, it is the position of an external Viewpoint (V) other than Figure or Relatum that provides the coordinates. Using a relative frame of reference, the position of F could be described as:

'F is left of the house'

In this reference frame, it is the position of the external *Viewpoint* – in this case the speaker – which provides the coordinates for the description of F's position.² Crucially, when the position of the Viewpoint changes, the description of F's location also changes. This means that depending on the position of the Viewpoint, F's position could also be described as 'in front of the house', 'to the right of the house' or 'behind the house'. Finally, the *absolute* frame of reference uses fixed coordinates, which are provided by gravity on the horizontal plane (up, down) and by fixed directions on the horizontal plane. Thus, in an absolute plane of reference, one could, for example, describe F's position as

'F is south of the house.'

Third, we need to consider the *origo* of the coordinate system. In the intrinsic frame of reference it is the volumic center of the Relatum that is reckoned as the origo of the coordinate system. In other words, the volumic center of the Relatum is the 'zero point' from which the position of the Figure is calculated. When we say, for example, that 'F is sitting on the front part of the car', this means that F is in a front position, *reckoned from the origo*, which is the center of the car. In the absolute system, it is the Relatum as a whole that provides the origo (Cf. Levinson 1996:145). When we say, for example, that 'F is south of the house', this means that F is in a southward position, *reckoned from the origo*, which is the

² Other linguists, like Hyslop (2002), would refer to this as a Deictic Center. Following Levinson, however, I restrict the term Deixis for those cases where the origo of the coordinate system lies with the speaker or the addressee, as will be made clear below.

house. For the relative frame of reference, the Viewpoint both provides the coordinates and forms its origo. Thus, if a speaker refers to F as being 'left of the house', the speaker both provides the coordinates left-right and functions as the origo of the coordinates.³

The fourth term needed in the description of the spatial system is that of *deixis*. Following Anderson and Keenan (1985:259), deictic reference is at stake where it is the extra-linguistic context that determines the interpretation of linguistic elements. For spatial deixis this means that the interpretation of spatial linguistic elements is determined by or anchored in the location of extra-linguistic entities. Using the framework adopted above, we could term those linguistic utterances as deictic, where the origo of the coordinates lies with the speaker (S) or the addressee (A).⁴ If we take this as a definition, it is clear that most sentences uttered within a relative frame of reference will be deictic; the prototypical Viewpoint is S, as in the example above, where F is described as left of the house, seen from the position of S.⁵ Utterances within an intrinsic framework, on the other hand, like 'inside the house' will be typically non-deictic. Deictic utterances within an intrinsic framework are possible, however, as in 'the apple is now inside me,' where ego is not only the Viewpoint, but also Relatum and origo. Finally, sentences within the absolute frame of reference may be both deictic and non-deictic. An example of a non-deictic sentence is 'F is at the land side of the tree', whereas 'F is at the land side reckoned from me' should be termed as deictic.

Having set up a framework, it is now time to turn to the Biak data. We will start with a typically deictic category: the category of demonstratives.

9.3 Demonstratives

This section is built up as follows. Section 9.3.1 deals with the morphological paradigms that the demonstratives take part in. Then, section 9.3.2 gives a semantic-pragmatic characterization of the demonstratives in terms of the framework given in the preceding section. Section 9.3.3, finally, gives some comment on the distribution of deictic nouns.

9.3.1 Morphology of (demonstratives as part of) complex articles

Demonstratives are used in the formation of complex articles, which - as explained in 3.2 - can be used both adnominally and pronominally. The paradigm for complex demonstrative articles is given in Table 1. For expository reasons, the table restricts itself to 3SG articles, while the directional *pur* 'back' is representative for all possible directionals discussed below.

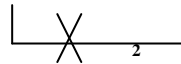
³ To be more precise, in the example given (F is left of the house) it is the line Viewpoint-Ground that provides the zero axe for the left-right distinction. Thus, to interpret the sentence 'F is left of the house', we could draw a line between the Viewpoint through the house, so that roughly everything on one side of this line is left of the house, and everything on the other side of the line is right of the house.

⁴ Other linguists reserve the term deictic for speaker-centric utterances. In my definition of deixis, I follow Levinson (1983), as referred to in Levinson (1996:132.) Although I adopt the three-fold division (intrinsic, absolute, relative) given by Levinson (1996), I still prefer to use the term deictic in addition, for reasons that will become clear in the course of the chapter. The discussion of the demonstratives and motion markers will make clear why I prefer to include addressee-centered utterances within my definition of deixis and do not want to restrict myself to speaker centered utterances.

⁵ Levinson (1996:142) rightly points to the fact that the Viewpoint need not necessarily be ego, as in the example 'Bill kicked the ball to the left of the goal', where the position of Bill serves as the viewpoint. This means that a relative frame of reference cannot be equated with a deictic frame of reference.

Table 1 3SG complex articles; brackets indicate optionality

		giv	person-SPC	dir	dm	motion marker	meaning ³
bare demonstrative article	close S: <i>ne</i>		i ¹		ne	(ma/fa/ra)	'this'
	close A: <i>ya~yi</i>		i		ya~yi ⁴	(ma/fa/ra)	'that'
	not S/A: <i>wa~wu</i>		i		wa~wu ⁴	(ma/fa/ra)	'that over there'
demonstrative article, given	close S: <i>ne</i>	an	i		ne	(ma/fa/ra)	'this'
	close A: <i>ya~yi</i>	an	i		ya	(ma/fa/ra)	'that'
	not S/A: <i>wa~wu</i>	an	i		wa	(ma/fa/ra)	'that over there'
(given) demonstrative-directional article	close S: <i>ne</i>	(an)	i	pur	ne	?	'this at the back'
	close A: <i>ya~yi</i>	(an)	i	pur	ya	?	'that at the back'
	not S/A: <i>wa~wu</i>	(an)	i	pur	wa	?	'that at the back over there'



- 1: the *i* in 3SG pronominal articles is a merge of *i* 3SG and *i* 'SPC'.
 2: the corpus contains no examples of complex articles containing both a directional and a motion marker.
 3: this column presents the meaning of the forms unaccompanied by the elements in brackets.
 4: *yi* and *wu* are used as allomorphs of *ya* and *wa*, respectively, but attested in article-final position only.

The table above will be referred to at several places in the following sections, as the complex article may contain not only demonstrative roots, but also motion markers (section 9.4.3) and directionals (9.5.3). This section, however, restricts itself to those complex articles that contain a demonstrative, as is the case for *ine* in (10) below.

- (10) *Rwa ma wákors ra var ine.*
 r<w>a ma w-ák-ors ra var i-ne
 <2SG>go to.here 2SG-also-stand along side 3SG.SPC-this
 'Come here and stand at this side too.' [ATbq]

The paradigm in Table 1 also forms the basis for deictic nouns, the distributional properties of which are discussed in 9.3.3 below. These are formed by using the formative *di* 'place' at the position otherwise occupied by the person-SPC formatives (for which see Table 1), as illustrated by *di-pur-wu* 'place-back-over.there' in the following example:

- (11) *Skovark ro dipurwu.*
 sko-vark ro di-pur-wu
 3PC-lie LOC place-back-over.there
 'They live over there.' [TWch]

Finally, throughout this section, several examples will be given of demonstratives used as part of predicative pronouns and locative-existentials, which have been discussed in the preceding chapter. Predicative pronouns are formed by using the inflected predicative *is* 'PRED' at the position otherwise occupied by the marker of givenness *an*, as illustrated by *is-i-ne* '3SG.PRED-SPC-this' in (12)

- (12) *Isine indya máme!*
 is-i-ne indya mám
 3SG.PRED-SPC-this so 2SG.see
 'Here it (the sago porridge) is, so look!' [SSbm]

Locative-existentials differ formally from predicative pronouns in the absence of a specificity marker, as is clear from the form *is-wa* '3SG.PRED-over.there' in (13).

- (13) *Karuiya* *i-is-wa* *kaker.*
karui=ya is-wa kaker
stone=3SG.SPC 3SG.PRED-over.there still
'The stone is still there.' [KOcy]

9.3.2 Demonstratives: a pragmatic-semantic characterization

More than any other category, demonstratives are a deictic category, as the choice of the demonstrative typically depends on the location of speaker (S) and addressee (A). The system is presented in the following table, which gives the use of demonstratives in the prototypical case with the speaker as the Viewpoint. The rightmost column has been added to show how the demonstratives fit into the framework set out in 9.2 above.⁶

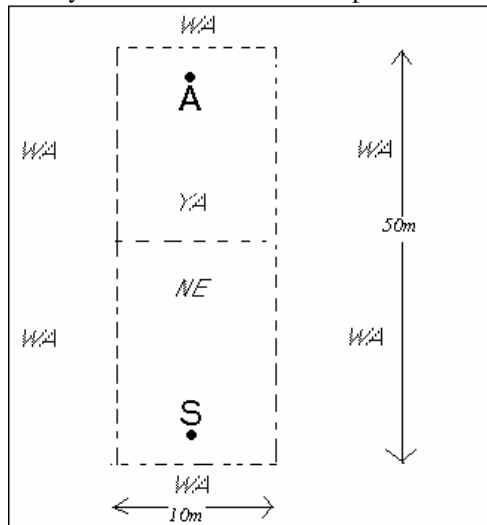
Table 2 Use of demonstratives, where Viewpoint (V) = speaker (S), R = Relatum, A = addressee

form	gloss	used to refer to entities conceived as:	Levinson's terminology
<i>ne</i>	this	close to S, but not closer to A than to S	Close to V (usually S) =R
<i>ya~yi</i>	that	relatively close to S (and A), but not closer to S than to A	Relatively close to V (usually S) = R1, not closer to V than to R2 (usually A).
<i>wa~wu</i>	that over there.	away from shared area of both S and A	Away from R1 (usually S) and R2 (usually A.)

As can be seen in the third column, the formative *ne* is used for entities close to S. The formative *ya* is used for entities that are relatively close to S, but not closer to S than to A, while *wa*, finally, is used for entities far away from both S and A. More precisely, the choice for *ne* or *ya* is determined by the question if the Figure is considered as belonging to the area of S, to the area of A, to the shared area of both or to neither S nor A. Basically, when we take a speaker and an addressee, everything that is closer to S than to A is designated with *ne*, while everything that is closer to A is designated with *ya*. This is only true, however, as long as the designated object is located within the area that is associated with S and / or A. As soon as the object is outside this area, it is referred to by means of *wa*. Consider the following figure, showing a football field with a speaker (S) and an addressee located at opposite ends of the field. The words in cursive writing show the demonstrative used by S to refer to a book or bicycle at different positions on the field.

⁶ The formulation in this rightmost column allows for the extension of the use of demonstratives beyond the prototypical case with S as the first Relatum and A as the second Relatum.

Figure 2 Demonstratives *ine*, *iya~iyi* and *iwa ~iwu*;
S and A at opposite ends of field; reference
to bicycle or a book in different positions

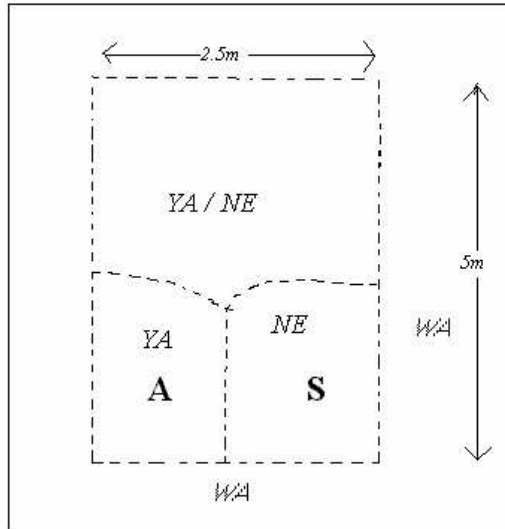


The figure above is based on different elicitation sessions with different informants, where a bicycle or a book was placed in different positions in between S and A.⁷ S was asked to talk to A about the bicycle and use one of the words *ine* 'this', *iya* 'that' or *iwa* 'that over there'. The bicycle was referred to as *sepeda ine* 'this bicycle' as long as it was closer to S, while it was designated with *sepeda iya* 'that bicycle' as long as it was closer to A. Informants differed in the reference to a bicycle on the middle line. In that case, some speakers designated the bicycle with *sepeda ine* 'this bicycle', while others used *sepeda iya* 'that bicycle'. Crucially, the bicycle (and other objects) was never designated with *wa* as long as it was within the area in between S and A, and when I asked my informants about this possibility, it was always 'out'.

While Figure 2 illustrates a situation where S and A are far from each other, Figure 3 illustrates a situation where speaker and addressee are closer, and both facing in the same direction, towards the located objects.

⁷ For these tests I used Wilkins 1999. This questionnaire tests for parameters that are known to influence the use of demonstratives in the world's languages. They are tested for by the realistic enacting of 25 situations. The questionnaire was kindly provided by the Max Planck Institute for Psycholinguistics in Nijmegen, The Netherlands.

Figure 3 Demonstratives *ine*, *iya~iyi* and *iwa~iwu*;
S and A facing in same direction; reference to
book in different positions



Again we see *ne* being used for reference to the entity when close to the speaker, and *ya* to the entity when close to the addressee. Note, however, that *ne* and *ya* can also be used for reference to the area that is considered as (relatively) close to both S and A. In this area, the choice for *ne* expresses the conception of the book as close to S (and A), while *ya* expresses the conception of the book as relatively close to S (and A). The pictures thus make clear why deixis within the Biak system can best be defined as involving reference to both speaker and addressee, as was stated above; the choice for the demonstrative is determined by the position of both S and A.

Visibility appears to be not a necessary condition for the use of a demonstrative, neither does it seem to influence the choice between *ne*, *ya* or *wa*. In a situation like the one given in Figure 2, S can refer to an invisible book directly behind A as *buku iya* 'that book', which he / she would also use if the book were visible.

The use of a demonstrative may be accompanied by pointing, which other than visibility and non-visibility may influence which of the three demonstratives is chosen. Biak people may use lip-pointing, head pointing or finger pointing, of which the last two seem more common than the first. While lip and head pointing seem to have no influence on the choice of the demonstrative, finger pointing from the part of S may favor the choice for *ne* instead of *ya*, especially when the Figure is very close. Finger pointing may have the effect, then, that the entity pointed to is considered as belonging to the area of the speaker, rather than the addressee. In elicitation, my language helpers agreed on the possibility to use *ne* for reference to bodyparts belonging to the addressee, but only if the speaker touches the bodypart in question (which, however, seems not to be very polite in Biak culture).

9.3.3 (Demonstratives as part of) deictic nouns: a remark on their distribution

Syntactically, deictic nouns usually form the complement of a preposition, as is the case for *di-ne* 'place-this' in (14) and *di-wa* 'place-over.there' in (15).

- (14) *Ivyovr* *ve* ***dine*** *myáse.*
 i-vyovr ve di-ne m-yás
 3SG-sweep to place-here to.here-up
 'It (the big wave) swept towards this place here upwards.' [GBco]
- (15) *Ikun* *si* *ro* ***diwa.***
 i-kun si ro di-wa
 3SG-burn 3PL.ANIM LOC place-over.there
 'He burnt them (his skin) over there.' [MMix]

Occasionally, however, the demonstrative locational nouns are used on their own, without a preceding preposition, as in (16), where one is used as a frame for the clause to come (cf. sections 8.2 and 8.3.2).

- (16) *Dine,* *randakya* *karui* *veba.*
 di-ne randak=ya karui ve-ba
 place-here beginning=3SG.SPC stone REL-big
 'Here, in the beginning there were big stones.' [GBdg]

9.4 Motion markers

Motion markers are used both as (part of) motion adverbs, and as part of complex (demonstrative-motional) articles. Before going into the formatives' morphological properties, section 9.4.1 first discusses their semantics. After this, section 9.4.2 focuses on motion adverbs, while 9.4.3 is concerned with the motion markers as part of complex articles.

9.4.1 Motion markers: semantic-pragmatic characterization

The basic forms of the Biak motion markers are given in Table 3 below. Note the close semantic relation between the motion markers here and the demonstratives discussed in 9.3.2 above. Both *ne* 'this' and *ma* are basically associated with the area around the speaker, *ya* 'that' and *fa* 'to.there' are associated with the area close to S, which may be close to A, while *wa* 'over.there' and *ra* 'to.over.there' are associated with the area away from S and A.

Table 3 Motion marker (V=Viewpoint, S=speaker, A = addressee, R= Relatum)

Form	Gloss	Used to refer to entities conceived of as moving	Levinson's terminology
<i>ma</i>	to.here	towards V (usually S)	to.V=R
<i>fa</i>	to.there	to place relatively close by, not towards V (usually S)	to.R2, which is relatively close to V=R1; not tow.V=R1
<i>ra</i>	to.over.there ⁸	to.place far away, not towards V (usually S) or A.	to.area not related to (V=) R1 and (A=) R2.

As indicated in the second column, all motion markers express the direction of an entity in a direction related to the position of the Viewpoint. In the case of *ma*, the motion is directed towards the Viewpoint (V), typically the place where the speaker (S) is at the moment of the utterance. An example is given with (17) below, which is part of the story of Manarmaker, told by a narrator in Biak town. The speaker uses *ma* to express that Manarmaker is leaving from the village Sopen in the direction of the town.

⁸ In the rest of this thesis, I use the abbreviation 'to.o.there'.

- (17) *Ibur ro Sopn muma.*
 i-bur ro Sopn mu-ma
 3SG-leave LOC Sopn PATH-to.here
 'He (Manarmaker) left from Sopen in this direction.' [MMen]

Fa, on the other hand, is used for movements towards a position close to the Viewpoint (again, typically S at the moment of speaking). As the meaning of *fa* is the most complex, I will come back to it below. An example of the use of *fa* is given in (18), where the Target is expressed explicitly by the noun phrase *avyav aniwa* 'that cave over there'.

- (18) *Apno ipai ro avyav aniwa ido,*
 apn=o i-pai ro avyav an-i-wa ido
 smoke=nonSP.SG 3SG-smoke LOC cave GIV-3SG.SPC-over.there THEM
- mura mufa.*
 mu-ra mu-fa
 2DU-go DIR-to.there
 'When there is smoke going up at the cave over there, you go there.' [KOfv]

The motion marker *ra*, finally, is used for all other movements. Thus, it is used for movements whose Target is unknown or irrelevant in the present context. It cannot be used for movements headed towards S or A, and often implies a movement away from both. An example is given in (19):

- (19) *Ikák anya rya mura.*
 ikák an-ya r<y>a mu-ra
 snake GIV-3SG.SPC <3SG>go PATH-to.o.there
 'The snake went away.' [MIbl]

As indicated above, the marker *fa* 'to.there' deserves some extra discussion. The use of *fa* is reserved for movements towards the area close to V, as long as the movement is not conceived of as directed towards V. Although Van Hasselt's description of *fa* as expressing movement away from the speaker covers most cases (Van Hasselt 1905: 14), his characterization needs to be modified slightly. First, it is clear that *f(a)* can be used not only to describe a movement away from the speaker, but also to describe a motion away from another Viewpoint. A clear example is the following, taken from a narrative about fishes in the sea having a meeting. At a certain point, the *wáw* 'turtle' wants to say some words, stands up and goes 'upwards' to the chairman's table. This movement 'upwards' is described as *fyás*, as it is a movement away from the rest of the group, from whose perspective this movement is described:

- (20) *Kniko va ido, wáwya dors fyás*
 knik=o va ido wáw=ya d-ors f-yás
 moment=nonSP.SG not THEM turtle=3SG.SPC 3SG-stand to.there-up

nyuk.

n<y>uk

<3SG>knock

'Not much later, a turtle stood up and came to the table (lit. to there upwards) and knocked the table.' [MBdx]

Another example is the following, taken from the same story. The meeting has ended and the big fishes want to eat the small ones. According to my language helper, the addressee is, as it were, taken into the story, located next to the small *insis*-fish and sees the fish moving 'away' into the sand.

- (21) *Indo,* *insis* *anya* *rya* *fvav*
 indo in-sis an-ya r<y>a f-vav
 then fish-<k.o.fish> GIV-3SG.SPC <3SG>go to.there-down

dev.

d-ev

3SG-hide.in.the.sand

'Then, the *insis* went down and hid in the sand.' [MBgd]

Second, although all occurrences can be analyzed as movements away from the Viewpoint, the use of *fa* also expresses that the movement is directed *towards a place relatively close by*. What is considered 'close by' seems to be guided by the same principles as described for the demonstrative *ya* above. The area around the addressee, then, is considered as 'close by', so that a movement (away from the speaker and) directed towards the addressee is described by means of *fa*. Consider the following figure, showing a speaker and an addressee, located as opposite ends of a field about 25 meters in length. The figure is based on elicitation with two groups of informants at different places, and at different times.⁹ The arrows describe movements of a person. My language helper was asked to inform the addressee about the person (Figure) moving in a certain direction. The words in bold cursive give the formatives used to describe the direction of movement.¹⁰

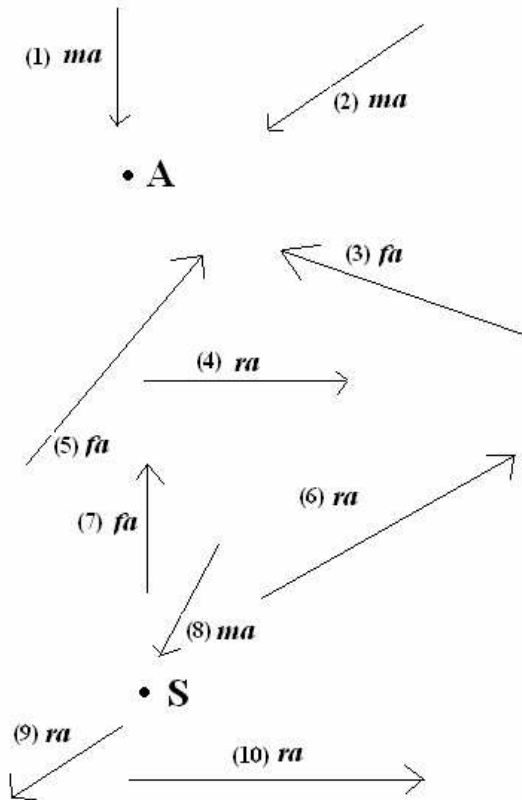
⁹ Ideally, of course, I would have tested at the same place, but this was not practically possible. The formatives given in Figure 4 are based on sessions at the football field in Wardo. Later I did the same test with another language helper (and children functioning as moving Figures) at a field in the village Yomdori. The second set of data was not incompatible with those found in Wardo, although the speaker used *fa* more often than I had expected. This may be due to the fact that *fa* does not automatically refer to the addressee, but can also refer to other entities or places close by.

¹⁰ A natural way to inform the addressee about the person moving appeared to be the use of a nominal clause containing a complex predicative pronoun, like the following:

Hendrik, *Mirino* *isiyafa!*
 Hendrik Mirino is-i-ya-fa
 Hendrik Mirino 3SG.PRED-SPC-that-to.there
 'Hendrik, Mirino is coming towards you!' [el]

The formatives given, then, are all used as part of a predicative pronoun as illustrated in the example above. This section restricts itself to use of the motion marker, while combinatory possibilities of the demonstrative and the motion markers will be discussed in 9.4.3 below.

Figure 4 Movements in different direction with respect to speaker and addressee, located at opposite ends of a field



First note that a movement towards the addressee is described by means of *fa* only as long as it does not take the Figure closer to S. Thus, movements (1) and (2) require the use of *ma* 'to.here' and cannot be described with *fa*. The use of *fa*, then, requires the movement to be directed away from S, although this 'away from S' should be understood in a wide sense, as *fa* can also be used for movement (3). In a strict sense, I think, *fa* does not express a movement 'away from S', but a movement that is conceived of as directed '**not towards S**'. Second, consider the use of *ra*, which describes those movements that are directed neither towards S, nor towards A. As such it can be used both for reference to entities at the moment when they are 'passing by', as is the case for movement (4) and (10), and for a movement away from both S and A, as illustrated by (6) and (9).

Returning to the use of *fa*, example (22) below is another illustration of *fa* expressing movement towards A. Here the notion 'move to A' is metaphorically extended to the notion 'meant for A'.

(22)	<i>Ben</i>	<i>insandya</i>	<i>eser</i>	<i>fasya</i>	<i>fanya</i>
	ben	insandya	e-ser	fas=ya	fa =n=ya
	plate	just	REL-contain	rice=3SG.SPC	to.there=SEP=3SG.SPC

be *ve* *sop.*
be *ve* *sop*
 2SG. give to bottom

'Put to the ground the plate that just contained rice meant for you.'
 [YWem]

In the example above, the use of *ra* instead of *fa* would imply that the rice is meant for someone else, whereas the use of *ma* would imply that it is meant for the speaker.

In the following example, on the other hand, it is the preceding context that directs which place is considered 'close by' and therefore guides the interpretation of *fa*. The example is taken from a story about a teacher who has just freed a tiger, and now goes to the judge because the tiger wanted to kill him.

(23) *Dóve* *"yara* *mufa* *ido*
 d-óve ya-ra mufa ido
 3SG-say 1SG-go PATH-to.there THEM

harimau *ine* *dór* *aya*
 harimau i-ne d-ór aya
 tiger 3SG.SPC-this 3SG-call 1SG

fa *yasevn* *pyan* *i."*
 fa ya-sevn pyan i
 CONS 1SG-free help 3SG

'He said (to the judge): "when I went there, the tiger called me to help and free him." [PMbk]

Here (*mu*)*fa* can be interpreted as 'the place where the tiger was imprisoned', because this place has just been mentioned in the preceding context and because the teacher has just come from this place.

The following passage, finally, is taken from a report of a fictive journey around the island Supiori. The use of *fa* is typical for its use in the rest of the report:

(24) *Koburu* *Sopen,* *kék* *mufyáse,*
 ko-bur=u Sopen k-ék mu-f-yás
 1PL.INC-leave=U Sopen 1PL.INC-go.up PATH-to.there-up

atau *kora* *mufa* *ro* *Mamoribo.*
 atau ko-ra mufa ro Mamoribo
 or 1PL.IN go PATH-to.there LOC Mamoribo

Kobur *Mamoribo,* *kosun*
 ko-bur Mamoribo ko-sun
 1PL.INC-leave Mamoribo 1PL.INC-enter

mufa *wer* *ro* *Adadikam.*
mufa *wer* *ro* *Adadikam*
 PATH-to.there again LOC *Adadikam*
 'We leave Sopen, and go upwards, or we go to Mamoribo. We leave Mamoribo, and we enter again (the village) in Adadikam.' [RSah]

The passage above illustrates how *fa* (or *f-* in *mufyás*) is used for trajectories whose endpoint is clear, and (therefore?) considered as relatively close to the viewpoint, which is provided by the fictive persons traveling around.

9.4.2 Motion adverbs

As stated at the beginning of this section, motion markers are used as (part of) motion adverbs. These motion adverbs follow the verb and – if present – the direct object. An example is given with the following sentence:

(25) *Indya* *sún* *i* *ra* *kwar.*
 indya *s-ún* *i* *ra* *kwar*
 so 3PL.AN-take 3SG to.o.there already
 'So they had taken it (the pig) away already.' [MSgd]

Motion markers may combine with directional markers into complex motional-directional adverbs, which will be further discussed in 9.5 below. An example is given with *f-yás* in (26) below. Note that the language here uses the allomorph *f* 'to.there' instead of *fa*

(26) *Min* *ansya* *sék* *fyás (...)*
 min *an-s-ya* *s-ék* *f-yás*
 member GIV-3PL.AN-SPC 3PL.AN-go.up to.there-up
 'The others went up (...)' [FFcu]

Both the simple motion adverbs and complex motional-directional adverbs may be prefixed with *mu-* 'PATH'. The use of motion markers as (part of) adverbs is summarized in the following table:

Table 4 Motion marker as (part) of simple and complex motion adverbs

	(durative) motion adverb	part of (durative) complex motional-directional adverb
to.here	(mu-) ma	(mu-) m -DIR
to.there	(mu-) fa	(mu-) f -DIR
to.o.there	(mu-) ra	(mu-) r -DIR

As indicated in the table, the function of *mu-* is basically aspectual; the use of *mu* implies durative aspect, while absence of *mu* implies non-durative aspect. The difference is illustrated in the following two examples. While (27) is used to refer to ego's moving in the direction of the speaker (at another moment than the moment of speaking), it cannot be used to refer to ego's having arrived already. To express that ego has arrived, the speaker should elide *mu-*, as in (28).

- (27) *Yaro kota muma kwar.*
 ya-ro kota mu-ma kwar
 1SG-LOC town PATH-to.here already
 'I was already on my way from the city to here.' / * 'I had already arrived here coming from the city.' [eI]

- (28) *Yaro kota ma kwar.*
 ya-ro kota ma kwar
 1SG-LOC town to.here already
 'I have / had already arrived here, coming from the city.' [eI]

While (27) and (28) are both based on elicitation, the corpus of non-elicited speech confirms the just stated correlation between *mu* and durativity. A convincing example is the following, taken from the Manarmaker-myth. It expresses that Manarmaker killed a fish, *while he was on his way* in the direction of the speaker.

- (29) *Ro fyór ryo Maundori mumanya*
 ro fyór r<y>o Maundori mu-ma=n=ya
 LOC piece <3SG>LOC Maundori PATH-to.here=SEP=3SG.SPC
- myun ín oser.*
 m<y>un ín oser
 <3SG>hit fish one
 'On his way from Maundori in this direction, he killed a fish.' [MMeq]

In the following sentence, the use of *mu*- 'PATH' implies that the teacher has not arrived yet, but is still on his way towards the speaker. Elision of *mu*- 'PATH' would imply that the teacher has arrived already.

- (30) *Myám guru nanya imrán muma.*
 m<y>ám guru an-ya i-mrán mu-ma
 <3SG>see teacher GIV-3SG.SPC 3SG-walk PATH-to.here
 'He saw the teacher coming in his direction'. [PMab]

9.4.3 Motion markers as part of complex articles

The morphology for complex articles was given in Table 1 above. The morphology of those complex articles that contain a motion marker is summarized below as Table 5. Again, for presentational reasons the table only gives the form for 3SG articles. (For the other forms, compare section 3.2.1, Table 1. The other forms are 'obtained' by replacing the formative *i* in Table 5) below with the *i*-final pronominal articles given in 3.2.1.)

Table 5 3SG complex articles containing a motion marker; brackets indicate optionality; T=Target, S=speaker

	giv	person -SPC	dm	motion marker	meaning
moving to Target = speaker	(an)	i	ne	ma	this moving to here
	(an)	i	ya	ma	that moving to here
	(an)	i	wa	ma	that over there moving to here
moving to Target other than speaker	(an)	i	ne	fa	this moving to there
	(an)	i	ya	fa	that moving to there
	(an)	i	wa	* fa	* that over there moving to there
moving away (not to S or other Target)	(an)	i	ne	ra	this over there moving to over there
	(an)	i	ya	* ra	* that moving to over there
	(an)	i	wa	ra	that over there moving to over there

Note that two of the nine logically possible forms are ruled out. Both the combination *ya+ra* and the combination *wa+fa* are unacceptable. An account of this unacceptability will be given later on in this section. As stated at the discussion of the complex articles in 9.3.1 above, the forms here can also form the basis for deictic nouns, predicative pronouns and locative-existentials, examples of which will be given later on in this section.

Semantically, the demonstrative indicates the location of the NP's referent with respect to S and A, while the directional expresses the direction into which this entity is moving. The rest of this section will first discuss the articles formed with *ma*, then consider the forms containing *fa* and close with a discussion on the articles containing *ra*.

Articles containing *ma* express movement towards the speaker. An example is given with *iwama* in (31), part of a conversation taking place at the house of one of my language helpers.

- (31) *Yee,* *veyok* *sna*
 ee *vey-ok* *sna*
 Yee *REL-have.sexual.intercourse.with* *mother*
- ro* *iwama* *ido!*
 ro *i-wa-ma* *ido*
 thing *3SG.SPC-over.there* *THEM*
 'Hey, motherfucker, who is coming over there?!' [YWcs]

The NP *ro iwama* 'that one over there coming to here' refers to a trader that is approaching the place where the conversation is taking place. Shortly after that, another speaker refers to the same person by means of the predicative pronoun *isiwama*, as illustrated in (32).

- (32) **Cakar bongkar risiwamane?**
 cakar *bongkar* *ri-is-i-wa-ma=ne*
 claw *demolish* *GEN.SG-3SG.PRED-SPC-over.there-to.here=Quest*
 'Is that a (one of these) wrecking claw(s)¹¹ coming?' [YWdd]

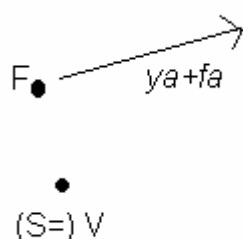
Turning to the use of *fa*, it is striking that it is only used in combination with *ne* 'this' and *ya* 'that', while the combination of *wa* 'over.there' and *fa* is ruled out. This is not very surprising,

¹¹According to one of my language helpers, the expression *cakar bongkar* 'wrecking claw' is used as a nickname for 'people walking along the street like this' (probably to indicate that they try to financially destroy their buyers.)

given the meaning of *wa* and *fa* described in 9.3.2 and 9.5.1, respectively. Recall that *wa* refers to an entity away from S and A. Every movement from far away towards the area where S and A are located is considered as a movement in the direction of S, expressed by *ma* 'to.here'. The language makes no distinction between a movement from far away to A on the one hand, and to S on the other hand; both movements are considered as headed towards the shared area of S and A and therefore designated with *wa+ma*. Movements in any other direction are considered as unrelated to both S and A and therefore designated with *wa+ra*.

The use of *fa* in combination with *ya* and *ne* is illustrated in Figure 5 and Figure 6. First consider Figure 5:

Figure 5 *ya+fa* in the sense of 'passing by'

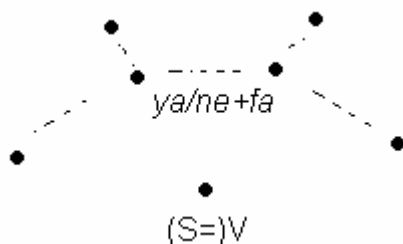


The figure above expresses how the combination *ya* and *fa* can be used for reference to the movement of entities into a direction other than the location of S over a 'traceable trajectory'. A clear example is given with the following sentence, which is a description of one of the scenes of the frog story. Here, the viewpoint chosen is a boy, falling down from a tree, while a group of bees is passing by:

- (33) *Kero* *va* *ido,* *mnivr* *ansya*
ker=o va ido mnivr an-s-ya
piece=nonSP.SG not THEM bee GIV-3PL.AN-SPC
- sisyafa* *siyaw* *rofan mkun ani.*
s-is-ya-fa si-yaw rofan mkun an-i
3PL.AN- PRED-that-to.there 3PL.AN-pursue dog little GIV-3SG.SPC
'Not much later, the bees had already past by and were pursuing the little dog.' [FFbm]

More frequently, however, the combination of *ya* and *fa* is used to refer to entities extended over an area relatively close to the Viewpoint. This use of *ya+fa* is expressed in Figure 6:

Figure 6 *ya/ne+fa* in the sense of 'extension over an area'



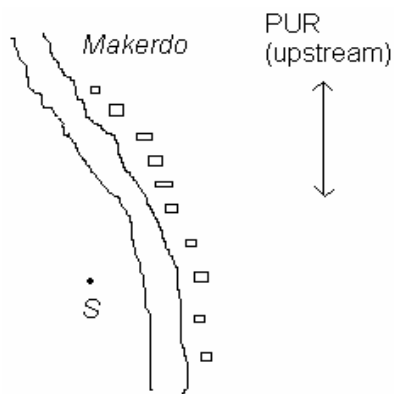
The dotted lines in the figure above refer to real or 'imagined' movements over a 'traceable trajectory'. Although in most cases the use of *ya/ne+fa* does not refer to physical movement,

in many cases the speaker can be thought of as mentally following a trajectory along the different entities referred to. Consider(34) below.

- (34) *Rumna* *nkón* *ro* *var* *ivaryafa*
 rum=na n-kón ro var i-var-ya-fa
 house=3PL.INAN.SPC 3PL.INAN-sit LOC side 3SG.SPC-side-that-to.there
- rarpuro:* *kyeru* *Makerdo* *ipuru (...)*
 rar-pur=o kyer=u Makerdo i-pur=u
 to.o.there-back=O until=U Makerdo 3SG-back=U
 'The houses were located along the other side backwards until Makerdo at the back (...)' [TWad]

The sentence above was given by a language helper telling about the former situation in his village. The following figure shows the location of the narrator (S) and of the houses at the other side of the river that he is referring to. Note how the expression *var ivaryafa* 'that side at the (other) side to there' matches with a conception of the houses as forming a kind of trajectory. In the example above, the course of this trajectory is further specified by *rarpuro* 'backwards.'

Figure 7 *Var ivaryafa* referring to the other side of the river



Another typical example of *ne+fa* expressing extension over an area is the following.

- (35) *Rao* *isyor* *rarvavo,*
 rao i-syor rar-vav=o
 until 3SG-dry to.o.there-down=O
- mov* *aninefa,*
 mov an-i-ne-fa
 place GIV-3SG.SPC-this-to.there
- mov* *evesorn* *annanefa* *káme,*
 mov e-ve-sorn an-na-ne-fa kám
 place REL-VBLZ-deep.sea GIV-3PL.INAN.SPC-this-to.there all

nbejadi *sup.*
 n-ve-jadi sup
 3.PL.INAN-VBLZ-become land

'Until it became drier and drier downwards (i.e. the water goes down), and the area around, the whole deep sea (around them) became land.' [KOap]

Two other examples are the following. In (36), the president of a meeting addresses his audience, facing in his direction, with *anmkoiyafa*, while *nainefa* in (37) refers to a number of sheds made surrounding the place where a big feast was held.

(36) *Vese nanmkoiyafa*
 vese an-mko-i-ya-fa
 other GIV-2PL-SPC-that-to.there

nono naisya wer ido, mkákvuk.
 nono na-is-ya wer ido mk-ák-vuk
 INDEF.PL 3PL.INAN-PRED-that again THEM 2PL-also-give
 'You other people, if there is something you want to put forward, join in and give it (i.e. your opinion).' [VYcs]

(37) *Kofrúr rusak avdars nainefa.*
 ko-frúr rusak=u avdars na-i-ne-fa
 1PL.INC-make broken=U shed PL.INAN-SPC-this-to.there
 'We will destroy the sheds around here.' [DAfo]

The use of *ra* is very much parallel to that of *fa*. First consider the unacceptability of *ya* 'that +*ra* 'to.o.there'. As was shown above, with respect to entities far away, the area around S and the area around A are considered as one shared area. This may explain why *ya+ra* is ruled out, while *ne+ra* is acceptable. The movement from the shared area of speaker and addressee is considered movement away from the area close to S, and therefore designated as *ne* 'this' + *ra* instead of *ya+ra*.

Although the use of *ne+ra* is acceptable, it is used rather infrequently. The corpus of non-elicited speech contains only one example, where the combination seems to refer to canoes passing by, while this same use of *ne+ra* referring to a 'passing by' was given in elicitation. Most frequently, *ra* is used in combination with *wa*. Parallel to what we have seen for *fa*, the use of *ra* here expresses real physical movement of one or more entities, or refers to extension over an area. An example of *wa+ra* expressing real physical movement of a single entity is given with (38) below.

(38) *Rofan anyano iswara*
 rofan an-ya-no is-wa-ra
 dog GIV-3SG.SPC-also 3SG.PRED-over.there-to.o.there

mnivr=s-ya siyaw i.
 mnivr=s-ya si-yaw i
 bee-PL.AN-SPC 3PL.AN-pursue 3SG
 'The dog also was away, moving, while the bees pursued him.' [FFbq]

The following two examples, on the other hand, illustrate the use of *wa+ra* for reference to extension over an area.

- (39) *Wai vébor vekain naiwara*
 wai ve-^Hbor ve-kain na-i-wa-ra
 canoe REL-much REL-sit 3PL.INAN-SPC-over.there-to.o.there
- simer papef na.*
 si-mer pa~pef na
 3PL.AN-strike.hard RED~shatter 3PL.INAN
 'The many canoes that were lying over the area, they hit them into pieces.' [MMin]
- (40) *Ibur pdef randa, kyón ro*
 i-bur pdef ran-ra k<y>ón ro
 3SG-leave onwards to.o.there-sea <3SG>sit LOC
- yénya bo iwara.*
 yén=ya bo i-wa-ra
 sand=3SG.SPC upside 3SG.SPC-over.there-to.o.there
 'It (the bird) left further seawards, and sat down (somewhere) at the sand (that is extended) over there.' [KOcd]

9.5 Directionals

While section 9.5.2 presents the distribution of directionals as part of adverbs, 9.5.1 first discusses their semantics. Section 9.5.3, finally, is concerned with the distribution of directionals as part of complex articles.

9.5.1 Semantics and pragmatics

The following table gives the forms and the meaning of the directionals in more or less contrastive pairs.

Table 6 Directionals

<i>directional</i>	<i>meaning</i>	<i>directional</i>	<i>meaning</i>
<i>rum</i>	in	<i>ri</i>	out
<i>pon</i>	front	<i>pur</i>	back
<i>yás~yáe</i>	up	<i>vav</i>	down
<i>ra</i>	sea	<i>re</i>	land
<i>vún</i>	middle	<i>re</i>	land
<i>var</i>	side	<i>var</i>	side

Although the forms in Table 6 are more or less contrastive, the rest of this section will make clear that the system cannot be fully accounted for in terms of binary oppositions. As is clear from the table, one and the same directional can be opposed to more than one other directional, as is the case for *re* 'land', which is opposed to both *ra* 'sea' and *vún* 'middle'. Moreover, this section will show that people's conception of direction is very much influenced by environmental factors that defy a clear-cut division of the real-world environment in binary oppositions. While the movement from a certain house to a certain point X, for example, can be regarded as 'upwards' or 'upstream', the movement from X to this house can be regarded as

a movement to 'the middle', because the house borders a road that is conceived of as the middle of the village.

Considering the frames of reference with regard to which the directionals are interpreted, it should be noted that most of the directionals can evoke either an intrinsic or an absolute frame of reference. Thus, a directional like *pon* may relate to a Relatum's intrinsic front, as in (41), but also to some absolute *pon-pur* axis that is roughly used for East-West, as in (42).

- (41) **Rusa** *nanine* *myám* *ve* **varpon** *va*.
 rusa an-i-ne *m<y>ám* *ve* *var-pon* *va*
 deer GIV-3SG.SPC-this <3SG>see to side-front not
 'The deer did not look to the front (i.e. that what is at the side of it's face).' [FYcy]

- (42) *Ipyar* *ibur* *wer* *ve* *Mokmeri*
 i-pyar i-bur *wer* *ve* *Mokmer=i*
 3SG-float 3SG-leave again to Mokmer=iPROP

nawarpon *wer*.
 na-wa-r-pon *wer*
 3PL.INAN.SPC-over.there-to.o.there-front again
 'He floated and left again to the area of Mokmer and further eastwards again.' [MSja]

The description here is restricted to the interpretation of directionals in an absolute framework. In the following subsections, however, both the intrinsic and the absolute frames of reference will receive attention.

Although, following Levinson, we speak of an absolute framework with 'fixed coordinates' this is not to say that these so-called 'fixed coordinates' are the same in any environment. On the contrary, it is precisely because the environment provides the coordinates for the description, that a change in environment may bring about a change in coordinates. Thus, as long as one is close to a house, this house may provide the coordinates for description.¹² Further away from the house, however, the sea-land axis or a river's upstream-downstream axis are providers of the coordinates. And it will be shown below that for reference to locations far away even other 'fixed' coordinates are adopted.

Considering the environment in and directly around the house, that side of the house where the kitchen is located is considered as its back (*pur*), while it seems that the side that one first meets when coming from the street is considered as the front (*pon*). About reference to other sides of the house than the front or the back, no reliable data are available. It is quite evident, however, that neither the sea-land axis nor the *pur-yás* axis based on the course of a river are ever used for reference to entities within the house (cf. Figure 10 below, where *pur* 'back' is used to refer to the back of the house, overruling the *pur* 'back, downstream' – *yás* 'up(stream)' axis used for the larger environment).

¹² Although it is the *intrinsic* properties of a house that determine the coordinates for the location of Figures with respect to the (center of) the house, the coordinates can also function as an absolute reference frame. Thus, when the location of an object is described as *ro rumya varpon* 'in front of the house', referring to an object at the house's intrinsic front, the framework used can be analyzed as intrinsic. However, a speaker located in front of a house might refer to a Figure closer to the house as being *ro dipur* 'in the back', because this Figure is closer to the back of the house than the speaker. The Figure, then, is in a backward position with respect to the speaker = Viewpoint = Relatum. Crucially for the evaluation of the frame absolute and not intrinsic is the fact that it is the speaker that functions as the Relatum, but the house that provides the coordinates.

Outside the house, other environmental features provide the coordinates. One source may be the course of a river. What is upriver is considered as being 'up' (*yás*), where what is downriver is considered as being 'back(wards)' (*pur*). Another axis often used is that of the sea and the land; *ra* is used for what is considered as 'sea(wards)', while *re* is used for what is considered as 'land(wards)'. Consider the following figures:

Figure 8 Land-sea axis

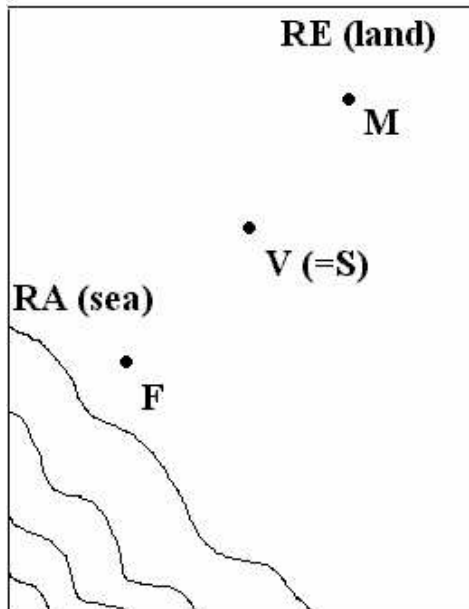
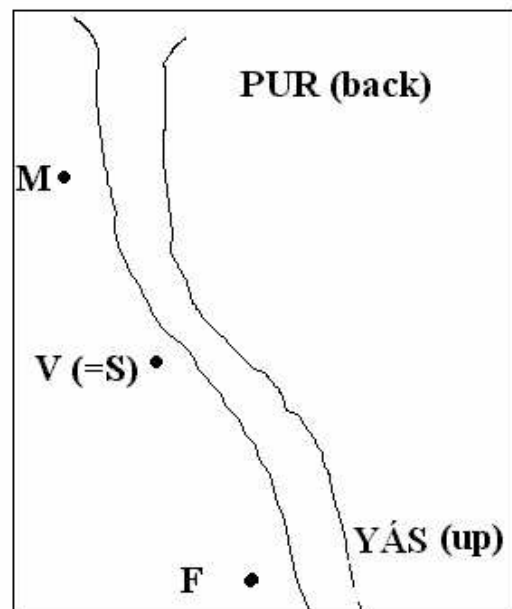


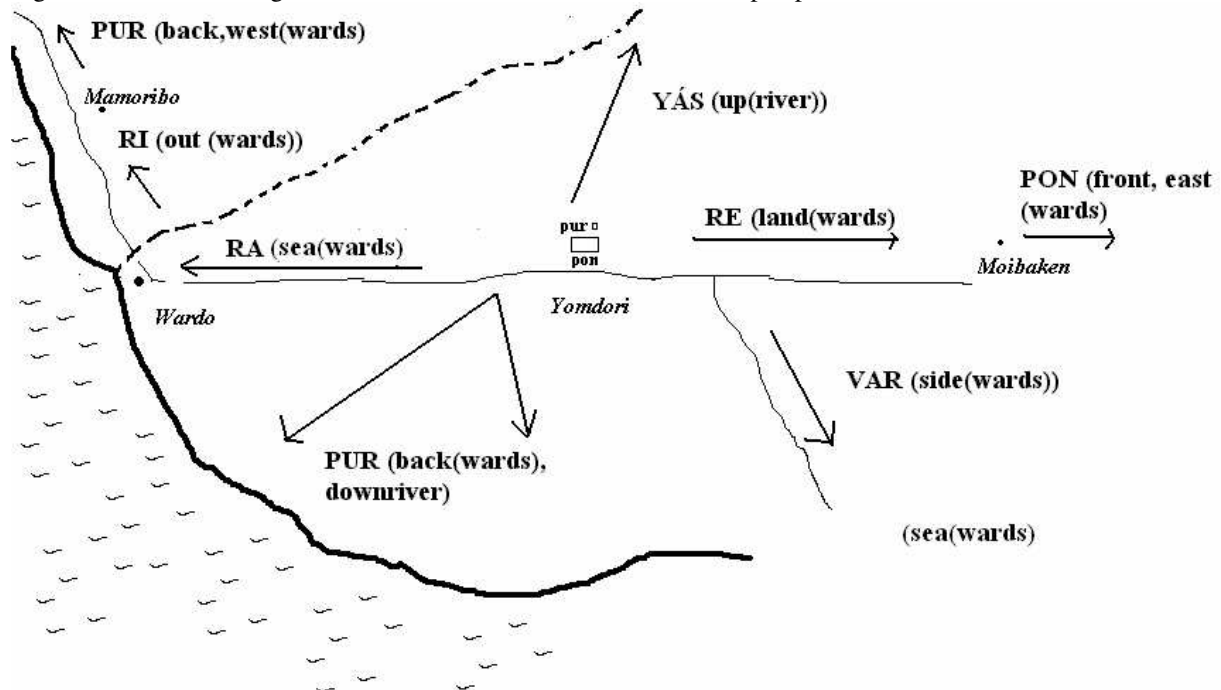
Figure 9 Upstream-downstream axis



The figures above show a speaker S who also is the Viewpoint V from which the environment is conceived. In the left figure, the speaker could refer to F as being in a seaward (*ra*) position, and to M as being in a landward (*re*) position. In the right figure, F would be referred to by the speaker as being backward (*pur*), while F would be considered as being upwards (*yás*). Of course these pictures are simplifications of the reality. At most places on the island one can see neither a river nor the sea. Nevertheless, at all the places where I have been, there was an area that was considered seaward, and an area that was considered landward. And in the village where I lived during my second fieldwork period, people had clear conceptions about what was *yás* 'up, upriver' and what was *pur* 'back, downriver', even though one had to walk for about an hour to see and reach the river.

It requires not much fantasy to see that applying the different axes does not automatically lead to an unequivocal coordinate system with four cardinal directions. Since a river is flowing seaward, for example, *pur* 'downstream' and *ra* 'sea(ward)' coincide at certain points, as would *re* 'landward' and *yás* 'upstream.' As no data from other villages are available, not more can be done than showing how the different axes interact in the village Yomdori, where most of the research was done. The interaction of these axes is shown in the following picture, which provides a rough schematic sketch of the environment. The dotted line indicates a river, the thick closed line the shore, and the thin closed lines indicate roads. The words in capitals are the terms used to designate areas or movements to the areas, seen from the perspective of Yomdori.

Figure 10 House in village Yomdori and environment, seen from the perspective of Yomdori

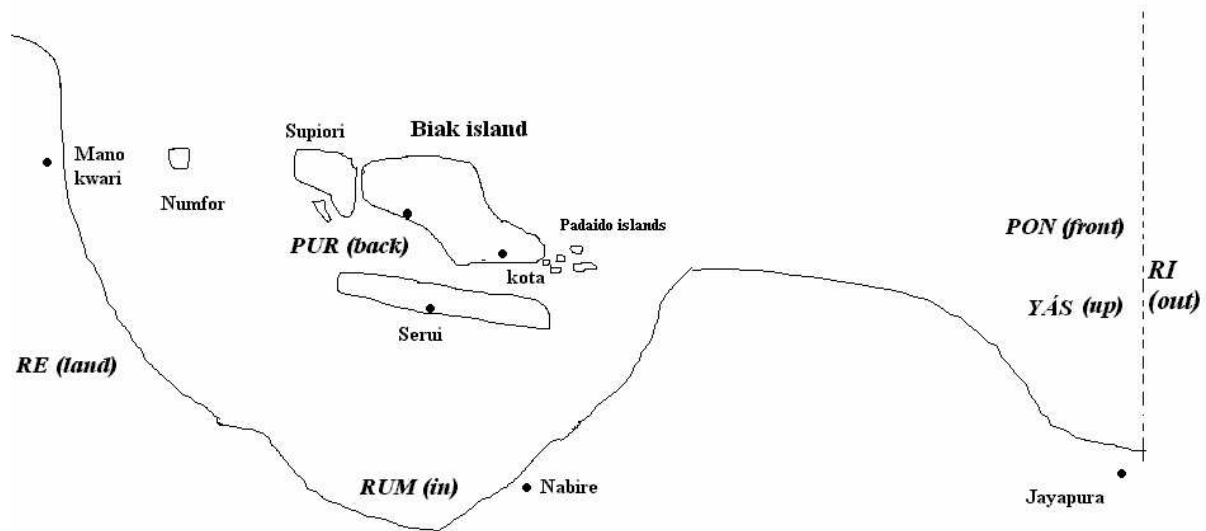


The center of the picture shows a house with a kitchen (not at scale) in the village Yomdori. The distance from the village Yomdori to the village Wardo is approximately 5 km (an hour's walk), the distance from Wardo to Mamoribo approximately 8km. To illustrate how the picture should be read, part of it will be spelled out. One arrow shows that if someone is going to Wardo, one would say that (s)he is going seaward (*ra*). As soon as the journey would head for villages along the road in between Wardo and Mamoribo, the journey would be termed as going 'outward' (*ri*), and as soon as someone is past the village Mamoribo, he would be referred to as being *pur* ('back, west'). The figure does not serve to describe in geographic detail how people refer to their environment. It rather shows the following.

- A Biak speaker can choose different absolute reference frames, depending on (1) the location of the speaker itself and (2) the distance of the Figure. For Figures close to the house, it is the house that provides the absolute frame (cf. footnote 12). For Figures in and around the village it is the river and the sea or land providing the axes, while for Figures further away again other conceptions of the environment provide the axes.
- As a Biak speaker chooses a different reference frame for Figures far away than for Figures close by, one and the same lexical item can be used for different directions, as is the case with *pur* and *yás*. This *pur* can be used for 'at the back of the house' for the area that is considered as 'at the back' or 'downriver' and for the area that is considered as 'back' or 'westward,' for which see below.

The following picture shows part of how Biak people conceive of the larger environment. Note first that the *pur-yás* ('downriver'-'upriver') axis used for rivers is also used for the area from the West of Supiori up till Jayapura. According to one of my informants, this is because the ancestors conceived of the sea as streaming from East to West. Note further that the area of the big island Papua is considered *re* 'land'. The area toward Nabire, on the other hand, is considered *rum* 'inward', because it is in a bay. *Pon*, finally, is used as an alternative for *yás*, for movements eastward, in line with the use of *pon* for eastward movements closer by as given in Figure 11.

Figure 11 Island Biak and environment, seen from the perspective of Biak



The directional *vún* was first attested in the corpus as referring to Figures located on one of the Padaido islands or Numfor. In the course of research, it became clear that *vún* is not only used for places on islands, but also for places in the middle of something else, as in the following examples.

- (43) (...)*karui nane kám murvúne (...)*¹³
 karui *na-ne* kám *mu-r-vún-e*
 stone 3PL.INAN.SPC-this all PATH-to.o.there-in.middle
 'All these stones (are thrown) on the middle (of the fire) (...)' [ATbo]

- (44) *Kniku mambir kmami ro sivúnya*
 knik=u mambir kma-m=i ro s-i-vún-ya
 moment=U 2SG.recognize father-2SG.POS=3SG LOC 3PL.AN-SPC-middle-that
 'In a moment you will see your father among those ones standing in the middle' [MSro]

Sentence (44) describes how a child looking for his father will recognize him among those dancing the traditional *wor*-dance in the middle of a circle of people standing around.

Like *ra* 'sea', *vún* 'middle' is in opposition to *re* 'land'. Thus, while going onto a football field will be described by the use of *vún*, going to the side of the field (or further) is considered as going *re* 'land(ward)', as illustrated in the following example:

- (45) *Sifnak bola, vo ... iwa irmomen (...)*
 si-fnak bola vo i-wa i-rmomn
 3PL.AN-play ball SIM 3SG.SPC-over.there 3SG-ferocious

¹³ This example is an excerpt from a sentence that was only partially understandable (because several people were talking at the same time.

<i>pyampum</i>	<i>suminya</i>	<i>ve vonde.</i>
p<y>am~pum	su-min=ya	ve von-re
<3SG>RED~push.away	3DU-member.of.same.group=3SG.SPC	to side-land

'They are playing football, and ... that one over there gets angry (...), he is pushing the other one to the side of the field ('the land'). [S_T_080]

The last directional deserving some explanation is *var*. As a noun, it may refer to something's side, which is shown in the following example:

(46) *Kás rarvav kovesuru.*
 k^h-as rar-vav ko-ve-suru
 1PL.INC-swim to.o.there-down 1PL.INC-VBLZ-two

<i>Eser ra waiya varya, eser ra vari.</i>
eser ra wai=ya var=ya eser ra var=i
one along canoe=3SG.SPC side=3SG.SPC one along side=3SG.SPC

'We swim down, we are two. One (goes) at one side of the canoe, one at the other.'
 [ZKao]

Likewise, the directional also refers to entities that are considered as at one side of an often unexpressed object. Restricting ourselves to the absolute frame of references, in the corpus the following areas were considered as 'at the side':

- the other side of a river,
- the area of North Biak, which is at the other side of the forest and hills
- the area indicated with *var* in Figure 10 above, for which the motivation is not entirely clear.

Consider sentence (47) below, which is part of a report by one of my informants about a journey around the island Supiori, from South, via West, to North. In the report, the travelers have arrived at the strait (between Supiori and Biak) in North Biak, and the reporter clarifies the course of the strait, going from South to North, as shown in Figure 12 below.

(47) *Selatya ryoyo mnu epups eroyo*
 selat=ya r<y>o=yo mnu e-pups e-ro=yo
 straits=3SG.SPC <3SG>LOC=O village REL-last REL-LOC=O

<i>Biak Barat, insandya nanya Orkdori,</i>
Biak Barat insandya nan-ya Orkdori
Biak West just GIV-3SG.SPC Orkdori

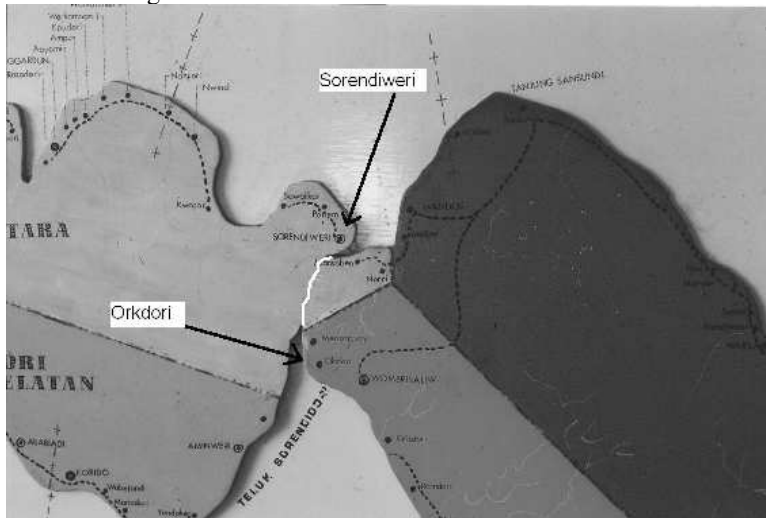
<i>selatya isya rya mbar</i>
selat=ya is-ya r<y>a m-var
straits=3SG.SPC 3SG.PRED-that <3SG>go to.here-side

syáe ro Sorndiwéri.
 s<y>ae ro Sorndiwéri
 <3SG>go.out LOC Sorndiwéri

'There is a strait from the last village on Biak West, the just mentioned Orkdori, there is a strait that runs to this side and comes out at Sorendiwéri.' [RScx]

The following figure¹⁴ shows the strait and the village the speaker is referring to:

Figure 12 The strait between Supiori (left) and Biak, with the villages Orkdori and Sorendiwéri



In the following example, which is the same as (34) above, the directional indicates the side of a river. It is part of a report by Timo Yembise, seated at the riverbank and telling about the houses built at the other side of the river.

(48) *Ma rumna nkain ro var*
 ma rum=na n-kain ro var
 And house=3PL.INAN.SPC 3PL.INAN-sit LOC side

ivaryafa rarpur=o
i-var-ya-fa rar-pur=o
3SG.SPC-side-that-to.there to.o.there-back=O
 'And the houses stood at the other side going downstream.' [TWad]

9.5.2 Directionals as part of complex motion adverbs

Directionals cannot function as independent adverbs, but combine with motion markers to form complex motion adverbs. As briefly mentioned at the end of section 3.1, the formatives making up the complex adverbs are considered 'bound morphemes'. The paradigm for the complex adverbs under discussion is given in Table 7 below.

¹⁴ The figure is a slightly adapted photograph, taken by the researcher in the 'office of education' (*kantor pendidikan*) in Biak, and used with permission.

Table 7 Directional markers as part of motional-directional adverb

motion marker-> directional:	towards Target = S, which is at position indicated by directional: <i>m-</i>	towards Target <> S, which is at position indicated by directional: <i>f-</i>	towards other Target / Target unknown, which is at position indicated by directional: <i>(ra)r-</i>
<i>rum</i> 'in'	m-rum ¹⁵	f-rum	(ra)n-dum ¹⁶
<i>ri</i> 'out'	m-ri	f-ri	(ra)n-di
<i>ra</i> 'sea,water'	m-ra	f-ra	(ra)n-da
<i>re</i> 'land'	m-re	f-re	(ra)n-de
<i>pon</i> 'front,east'	m-pon	f-pon	(ra)r-pon
<i>pur</i> 'back,downriver'	m-pur	f-pur	(ra)r-pur
<i>yás~yáe</i> 'up, upriver'	m-yás~m-yáe	f-yás~f-yáe	(ra)r-yás~r-yáe
<i>vav</i> 'down'	fes / fe (*mbav)	f-vav / fes / fe	(ra)r-vav / fes / fe
<i>vún</i> 'middle'	m-bun	f-vún	(ra)r-vún
<i>var</i> 'side'	m-bar	f-var	(ra)r-var

Considering the forms in the table above, first note the relation between the motion markers here and the longer forms given in 9.4 above. The full directional *ma* 'to.here' corresponds to the shorter form *m* 'to.here' here, *fa* 'to.there' corresponds to *f*, while *ra* 'to.o.there' corresponds to *r*. Second, note that the forms in the rightmost column have two allomorphs: a shorter variant starting with *r-* or its allomorph *n*, and a longer variant *rar-* or its allomorph *ran-*, respectively. The shorter variant is used when the adverb directly follows the homophonous verb *ra* 'go', as in the following example:^{17,18}

- (49) *Skora* (**ra*)*ryás* (...).
 sko-ra r-yás
 3PC-go to.o.there-up
 'They went upwards (...).' [TWcv]

The shorter variants are also used in case the adverb is prefixed with *mu-* 'PATH', as illustrated in (50).

¹⁵ The sequence of /m/ and /t/ is realized as [mbr], and in several other sources spelled as such, as in NT and the different works of the Van Hasselts, cf. section 2.6.2.1.

¹⁶ As stated in 2.5.2.1, for lexical items (or grammatical morphemes) that do not belong to the major lexical classes, /t/ is realized as [d] when following /n/. Elsewhere in this publication, I will use *r* in the glosses instead of *d*.

¹⁷ I forgot to check whether the shorter variant is also used in case there is any material intervening in between the verb and the adverb, as in *r<y>a ro di-ne r-yáse* '<3SG>go LOC place-this to.o.there-up' -> 'he went from here upwards'.

¹⁸ One might be inclined to analyze the directional *rar* as consisting of *RA* + *r*, the first *RA* being related to the verb *ra* 'go'. This analysis would account for the use of *r* instead of *RA-r* in positions following the verb *ra* (as in *r<y>a r-yás* '<3SG>go to.over.there-up'), because the use of both the verb *ra* 'go' and *RA* 'go' would be (felt as) repetitive. This analysis would not explain, however, why the *r*-initial motion-directional adverbs require the use of *RA* 'go' (in other positions than following the verb *ra*), while the *f*-initial and *m*-initial motion-directional adverbs do not allow for it. Neither would it explain the use of *r* instead of *RA-r* in the position following *mu* 'PATH'. The analysis of *rar* as *Ra+r*, then, introduces an extra morpheme (*RA*, though related to the verb *ra*), but creates as many problems (why no *RA* 'go' before *m-* and *f-*?) as it solves (no *ra* 'go' + *RA*), while it leaves one problem unsolved (why no *MU* 'PATH' + *rar*?). Therefore, it is better to consider *rar* and *r* as allomorphs.

- (50) *Isnai* ***mu(*ra)ryáse*** (...)
 i-snai mu-r-yás
 3SG-light PATH-to.o.there-up
 'It was getting light (...)' (Lit. 'It was lightening upwards')
 [MSmi]

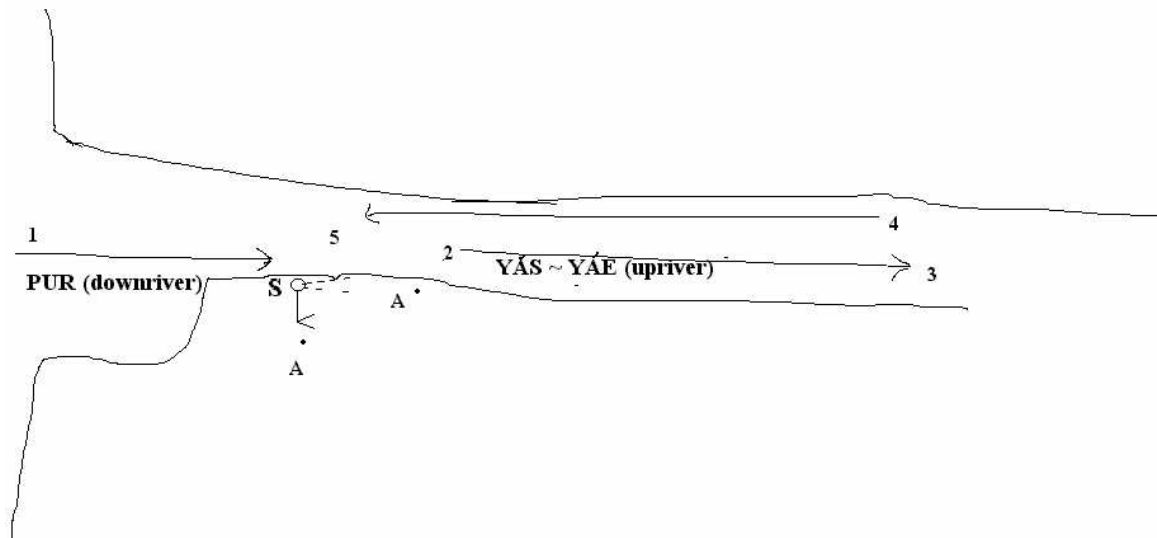
In all other cases, the language uses the longer variant, as is illustrated by the acceptability of (51)a and the unacceptability of (51)b.

- (51) a *Dék* ***raryáse*** (...)
 d-ék rar-yás
 3SG-go.up to.o.there-up
 'He went upwards (...)' [MBag]
- b **dék* ***ryáse*** (...)
 d-ék r-yás
 3SG-go.up to.o.there-up
 'He went upwards (...)' [el]

Second note that the combination of *m* 'towards here' and *vav* is unacceptable. Instead, a speaker should use the formative *fe~fes*, which refers to a movement downwards, irrespective of the position of S and A.

Turning to the semantics of the system, the directional always expresses the direction *into which* the entity is moving. This is shown in the following examples. The sentences are part of a story told at the riverbank, by a person facing in an upriver direction, as in the following picture. This picture also shows how the classification *pur* 'back' refers to a downriver direction or position, and *yás~yáe* 'up' to an upriver direction or position:

Figure 13 Story told by Timo Yembise at the river side; Timo facing upriver



The following examples, which are intonational phrases in sequence of one and the same sentence, illustrate the system in which the motion markers and the directionals are combined. The numbers in the sentences correspond with the numbers in Figure 13 above.

- (52) *Saroiya* *ísár* *ro* *wárya* *do* *ine*
 saroi=ya i-^hsár ro wár=ya do i-ne
 whale=3SG.SPC 3SG-come.out LOC water=3SG.SPC inside 3SG.SPC-this

*myáeu*¹

m=yáe=u

to.here=up=U

'The whale came out (of the sea) in this river upwards in the direction of where we are now, '

- (53) *na* *rya* *fyáe*² *ro* *diya*,³
 na r<y>a f-yáe ro di-ya
 then <3SG> go to.there-up LOC place-that
 'then it went upriver to there, '

- (54) *ramnai* *rya* *mpur*⁴ *ro* *dine*⁵,
 ramnai r<y>a m-pur ro di-ne
 afterwards <3SG>go to.here-back LOC place-this
 'then it went downriver to here, '

- (55) *imrúr* *rarvav*
 i-mrúr rar-vav
 3SG-go.under.water to.o.there-down
 'it dived downwards, '

- (56) *ramnai* *insape* *ipisn* *muryáe*.
 ramnai insape i-pisn mu-r-yáe
 afterwards then 3SG-float.to.the.surface PATH- to.o.there-up
 'then it came up to the surface again.' [TWbh]

It is clear that all these utterances make use of an absolute frame of reference, as it is the environment that provides the coordinates.¹⁹ Some directionals, however, can also be used in an intrinsic frame of reference. This is true for the directional *pon*, as in the following sentence:

- (57) *Rofan* *anya* *ifrar* *iyaw* *iyaw* *rarpon* (...)
 rofan an-ya i-frar i-yaw i-yaw rar-pon
 dog GIV-3SG.SPC 3SG-run 3SG-pursue 3SG-pursue to.o.there-front
 'The dog ran and pursued and pursued forward (...)' [FFca]

Here, the dog's movement is described as 'to the front', because the dog is running in the direction of what it sees in its (intrinsic!) front.

9.5.3 Directionals as part of complex articles

Directionals not only function as part of adverbs, as described in the preceding section, but are also used as part of articles, whose paradigm was given in Table 1 above. The morphology of those complex articles that contain a directional can be represented as follows:

¹⁹ Although the speaker's back is at the same side as the back (*pur*) of the river, this is not determinative for the description. My informant assured me that the same description - at least as far as the use of *pur* is concerned - can be used when the speaker is facing in the opposite direction, so that his front would face the river's back.

(GIV)-person-SPC-DIR-(DEM).

The minimal 'directional article', then, consists of a person-SPC marker, followed by a directional, as is the case for *irum* in the following example:

- (58) *Kadern epupsya ryo sraividwom irum.*²⁰
 kadern e-pups=ya r<y>o srai-vidwom i-rum
 platform REL-last=3SG.SPC <3SG>LOC coconut-upper.part 3SG-inside
 'The last platform was in the upper part of the coconut tree inside.' [RAcz]

Most directional articles in the corpus combine with a demonstrative, resulting in the forms given in Table 8 below. For presentational reasons, the table only gives 3SG articles. (For the other forms, compare section 3.2.1, Table 1. The other forms are 'obtained' by replacing the formative *i* in Table 8 below with the *i*-final pronominal articles given in 3.2.1.)

Table 8 Directionals as part of (given) 3SG directional-demonstrative articles

directional:	this (given)	that (given)	that over there (given)
<i>rum</i> 'in'	(an-)i-rum-ne	(an-)i-rum-ya	(an-)i-rum-wa
<i>ri</i> 'out'	(an-)i-ri-ne	(an-)i-ri-ya	(an-)i-ri-wa
<i>ra</i> 'sea, water'	(an-)i-ra-ne ²¹	(an-)i-ra-ya	(an-)i-ra-wa
<i>re</i> 'land'	(an-)i-re-ne	(an-)i-re-ya	(an-)i-re-wa
<i>pon</i> 'front, east'	(an-)i-pon-ne	(an-)i-pon-ya	(an-)i-pon-wa
<i>pur</i> 'back, downriver'	(an-)i-pur-ne	(an-)i-pur-ya	(an-)i-pur-wa
<i>yás</i> ²² 'up, upriver'	(an-)i-yás-ne	(an-)i-yás-ya	(an-)i-yás-wa
<i>vav</i> 'down'	(an-)i-vav-ne	(an-)i-vav-ya	(an-)i-vav-wa
<i>vún</i> 'middle'	(an-)i-vún-ne	(an-)i-vún-ya	(an-)i-vún-wa
<i>var</i> 'side'	(an-)i-var-ne	(an-)i-var-ya	(an-)i-var-wa

As has been indicated at the discussion of demonstrative articles in 9.3 above, the directional-demonstrative articles can also be used in the formation of (directional-locational) deictic nouns and in the formation of predicative pronouns and locative-existentials, examples of which will be given below. The directionals can also be used as part of complex articles containing a motion marker. In that case, they are used in final position of the article, following the motion marker. The form of these complex articles can be represented as follows:

(GIV)-person-SPC-DEM-MOT-DIR

The following table, which is an extension of Table 5 above, gives an overview of 3SG articles following this paradigm.²³

²⁰ Note the semantic relation between the *srai-vidwom* 'coconut-upper.part' and *i-rum* '3SG.SPC'. Here, the directional article does not specify the place of the *srai-vidwom* as a whole, but rather specifies what part of this *srai-vidwom* is intended.

²¹ According to my language helper Chris Padwa, with whom I checked all data, *(an)irene* and *(an)irane* are not acceptable, but should be replaced by *(an)ireine* and *aniraine*. Whether these forms are also unacceptable for speakers of the Wardo dialect, however, remains to be checked.

²² The allomorph *yáe* is attested in adverb-final position only.

²³ It is not always clear whether the complex article should be analyzed as one word, or rather as a sequence of a demonstrative article followed by a motion adverb, so that *inempur* would be analyzed as *ine* '3SG-this' followed by *mpur* 'to.here-back'. In the case of the motion marker *r(a)*, however, the difference is clear; *inerpur* '3SG.SPC-to.o.there-back' can only be analyzed as one word, as a sequence of two words would require the use of *rar* instead of *r*, resulting in *ine rarpur* (cf. section 9.5.2 above).

Table 9 3SG complex articles containing a motion marker and a directional; brackets indicate optionality; T=Target, S=speaker

	giv	pers SPC	dm	mo- tion	direct- ional	meaning
moving to Target = speaker	(an)	i	ne	m	pur etc.	this moving to here, backwards (etc.)
	(an)	i	ya	m	pur etc.	that moving to here, backwards (etc.)
	(an)	i	wa	m	pur etc.	that over there moving to here, backwards (etc.)
moving to Target other than speaker	(an)	i	ne	f	pur etc.	this moving to there, backwards (etc.)
	(an)	i	ya	f	pur etc.	that moving to there, backwards (etc.)
	(an)	i	wa	* f	pur etc.	* that over there moving to there, backwards (etc.)
moving away (not to S or other Target)	(an)	i	ne	r	pur etc.	that over there moving to over here, backwards
	(an)	i	ya	* r	pur etc.	* that over there moving to over there, backwards
	(an)	i	wa	r	pur etc.	that over there moving to over there, backwards

The directional articles are always interpreted in relation to a Viewpoint (V), which is usually the speaker (S). Thus, *snon ipurne* 'man 3SG.SPC-back-this' is interpreted as 'this man in a backward position reckoned from V=S'. Therefore, a speaker cannot use the article as modification of a noun or pronoun referring to himself, as he cannot, for example, be in an upward position from himself. The following sentence, then, is unacceptable, except when the speaker would refer to a situation existing at another moment than the moment of speaking.²⁴

- (59) ?? *aya* *i*(yás)ne...*
 aya *i-yás-ne*
 1SG SPC-up-this
 ?? 'me up here' (in an upward position from where I am now) [e]

As indicated by the parentheses, the expression *aya ine* '1SG SPC-this', however, is fully acceptable. This is also true for the combination of non-1st person pronouns with directionals, as in the following example:

- (60) *Aw* *iyásya* *ido*
 aw *i-yás-ya* *ido*
 2SG 3SG.SPC-up-that THEM
- mambri* *ebabo* *ke* *mamri* *ekwar?*
 man-vri e-babo ke man-vri e-kwar
 male-heroic REL-young DOUBT male-heroic REL-old
 'You up there, are you an old hero, or a new one?' [TWec]

The following sentences further illustrate the use of the directional articles as given in Table 8, while several examples also serve to illustrate that many situations are described from a Viewpoint other than the speaker's position. First consider (61), where the expression *iraya* '3SG.SPC-sea-that' is used as a kind of fixed expression.

- (61) (...) *roro* *swan* *iraya* *dori*
 ro *swan* *i-ra-ya* *do-ri*
 LOC sea 3SG.SPC-sea-that inside-POS.SG

²⁴ This restriction is comparable to that described for locational nouns in section 9.5.5.

<i>ínsya,</i>	<i>sifrúr</i>	<i>fanandyuro</i>	<i>osero (..)</i>
ín=s-ya	si-frúr	f~ana~ndyur=o	oser=o
fish=3PL.AN-SPC	3PL.AN-make	~RED~meet=nonSP.SG	one=nonSP.SG

'(...) in the sea seaward from here, the fishes, they were about to hold a kind of meeting (...)' [MBco]²⁵

The following sentence is part of a report told to the researcher in the village Wardo, about people fleeing from the village Sowek to a mountain close by. The speaker refers to the mountain as being *iyásyafa* 'up there and extending to there'. According to my informant, the reporter here refers to the mountain as if she stands in the village Sowek. In other words, the Viewpoint here is not the speaker at the moment of speaking, but the village Sowek.

(62) *Ma inkora nde*
 ma inko-ra n-re
 and 1PL.EX-go to.o.there-land

inkokain ro gunung iyásyafa
 inko-kain ro gunung i-yás-ya-fa
 1PL.EX-sit LOC mountain 3SG.SPC-up-that-to.there
 'We went landward and went to sit at the mountain up there.' [GSbf]

Both (63) and (64) below illustrate the use of a directional as part of a locative-existential. In (64), the situation again is not described from the Viewpoint of the speaker, but from another perspective, in this case the person sitting; it is from his perspective that the children are considered *vav* 'down' and *wa* 'over there'.

(63) *Na kumámfán=u*
 na ku-mám-fán=u
 then 1DU.INC-see-try=U

bati *kuvanya isrumne,*
 bati ku-v=an-ya is-rum-ne
 friend 1DU.INC-POS=GIV-3SG.SPC 3SG.PRED-inside-this

dákwarpu sindi.
 d-ák-warpu si=n=ri
 3SG-also-together.with 3PL.ANIM=SEP=IRR
 'Then the two of us will see whether our friend is inside (the tree hole) here, if he is together with the others.' [FPea]

(64) *Kyain voi romá, romámkun ansya*
 k<y>ain voi romá romá-mkun an-s-ya
 <3SG>sit but child child-little GIV-3PL.AN-SPC

²⁵ Both the context and the use of a nonspecific marker =o instead of =ya make clear that the meeting has not taken place yet, but is about to take place (cf. 5.2.2).

<i>sisvavwa</i> ,	<i>sikfo (...)</i>
s-is-vav-wa	si-kfo
3PL.AN-PRED-down-over.there	3PL.AN-shoot.with.arrow
'While he sat, the children were down over there, shooting with arrows (...)' [KOgp]	

9.5.4 Morphologically complex locational nouns formed with *var* 'side'

The directionals given in Table 6 above may all combine with the noun *var* 'side,' as is shown in the following Table. Note that the allomorphs *var* are *vor* are in free variation, except in the sequences *varvar* / **vorvar* and *varvav* / **vorvav*, and that an *n*-final allomorph is used in positions preceding /r/ (realized as [d]).

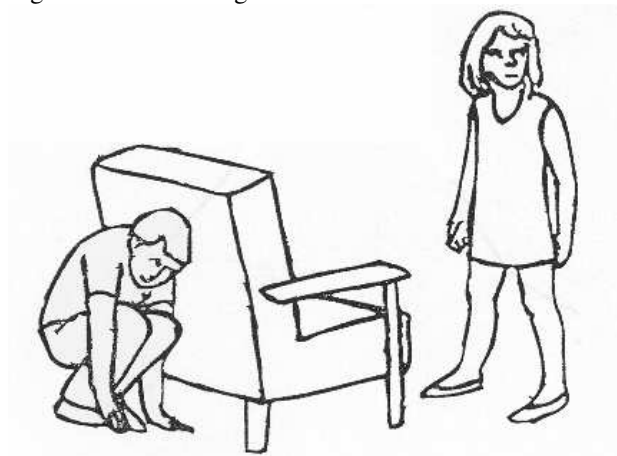
Table 10 Compound locational nouns

<i>directional</i>	<i>compound</i>	<i>meaning</i> (R = Relatum)
<i>rum</i> 'in'	<i>vandum~vondum</i> ¹	inside, inner area
<i>ri</i> 'out'	<i>vandi~vondi</i>	outside, outer area
<i>ra</i> 'water'	<i>vanda~vonda</i>	waterside, water area
<i>re</i> 'land'	<i>vande~vonde</i>	landside, land area
<i>pon</i> 'front'	<i>varpon~vorpon</i>	frontside, front area
<i>pur</i> 'back'	<i>varpur, vorpur</i>	backside, back area
<i>yás~yáe</i> 'up'	<i>varyás~voryás</i>	upside(?), upper area
<i>vav</i> 'down'	<i>varvav, *vorvav</i>	downside / area below
<i>vún</i> 'middle'	<i>varvún~vorvún</i>	middle / middle area
<i>var</i> 'side'	<i>varvar, *vorvar</i>	side / side area

1: /r/ is realized as [d] after /n/, cf. section 2.6.2.1

Just like simple locational nouns, the complex locational nouns given in Table 10 can be used to express location with respect to a Relatum. If so, the construction used is similar to the construction used for morphologically simple locational nouns, described in 6.2.3. Examples of constructions with an explicit Relatum are given with (65)a and (65)b below, which were given by different informants as a description of Figure 14. Note that the locational noun in (65)b is inflected, while it lacks inflection in (65)a.

Figure 14 Male hiding from female behind chair



- (65) a *Dóf* *ro* **kursiya** *varpur*
 d-óf ro kursi=ya var-pur
 3SG-hide LOC chair=3SG.SPC side-back
 'He hid at the back of a chair.' [GT64]
- b *Snonkakuya* *dóf* *ro* **karapesaya** *varpurdi.*
 snonkaku=ya d-óf ro karapesa=ya var-pur-ri
 human.being=3SG.SPC 3SG-hide LOC chair=3SG.SPC side-back-POS.SG
 'A / the person is hiding at the back of a chair.' [GY64]

Complex locational nouns may evoke either an absolute or an intrinsic frame of reference. A clear example of an absolute frame of reference is the following:

- (66) *I* *ero* **lampu** **seninya** *vanderi.*
 i e-ro lampu senin=ya van-re-ri
 3SG REL-LOC lamp sign=3SG.SPC **side-land-POS.SG**
 'He is the one who lives at the landside of the sign post.' [MSij]

An example of an intrinsic frame of reference, on the other hand, is given in (67), where both the simple locational *dori* 'its inside' and the complex locational *vandi* 'outside' refer to inherent properties of the Relatum-noun *keranjang*:

- (67) *Kavraya* *ryo* **keranjanya** *dori,*
 kavra=ya r<y>o keranjang=ya do-ri
 rope=3SG.SPC <3SG>LOC basket=3SG.SPC inside-POS.SG
- vo* *munna* *nkáf* *ra* *vandi.*
 vo mun=na n-káf ra van-ri
 SIM part-3PL.INAN.SPC 3.PL.INAN-hang along side-outside
 'A rope is at the basket's inside, but some parts are hanging along the outside.'
 [OP27]

The corpus contains no convincing examples of locational nouns interpreted within a relative frame of reference. The descriptions in (65) a and b above, then, also make use of an intrinsic frame of reference. It is the chair's intrinsic back that provides the coordinates for the description.²⁶

9.5.5 Compound directional nouns compared to deictic directional nouns

This section compares the compound directional nouns described in the preceding section to the deictic nouns that contain a directional. A typical example of the use of the latter is given with example (68)

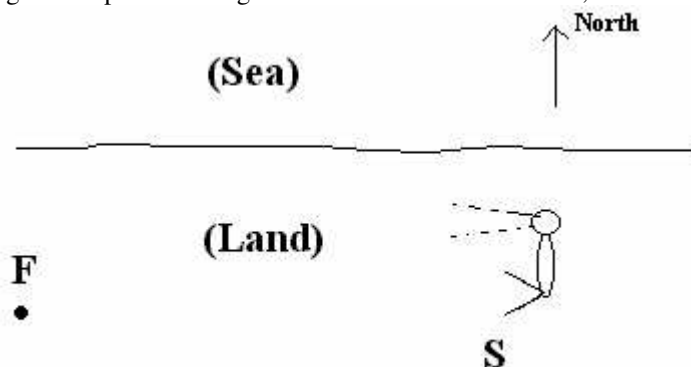
- (68) *Sikram* *si* *ro* *dipon.*
 si-kram si ro di-pon
 3PL.AN-store 3PL.ANIM LOC place-front

²⁶ If the corpus contained more examples of relative frames of reference, it would also be possible to analyze this example as evoking a relative frame of reference. In that case, the chair would be described as being at the back (*pur*), not because it is at the side of the chair's intrinsic back (*pur*) back, but because it is back (*pur*) with respect to the girl (the Viewpoint).

'They buried them in the front (in a frontward direction from here).'

The sentence above is uttered by a speaker that refers to a location in front of him, illustrated in Figure 15 below. The use of *pon* shows that he makes use of an intrinsic frame of reference, as the place referred to is in his intrinsic front.

Figure 15 speaker telling about location 'in front' of him, on the northern beach of the island Rani



Deictic relational nouns can only be used to refer to the location of an entity (F) with respect to the Relatum, which must also be the Viewpoint from which the situation is described. The Viewpoint typically coincides with the speaker, as in the figure above, where the speaker is the Viewpoint and the Relatum with respect to which the Figure is located; the Figure is in a frontward position reckoned from the speaker.

Given that deictic nouns refer to locations located in a certain direction with respect to the Relatum, and that the Relatum coincides with the Viewpoint=speaker, they cannot be used to describe the position of the speaker himself at the moment of speaking. Compare the following examples:

- | | | | | | |
|---------|-----------------------------------|----------------|-----|----------------------------------------------|----------------|
| (69)a | <i>Skoro</i> | <i>diyáse.</i> | b ? | <i>Kuro</i> | <i>diyáse.</i> |
| | sko-ro | di-yás | | ku-ro | di-yás |
| | 3PC-LOC | place-up | | 1DU.INC-LOC | place-up |
| | 'They are upwards from here' [el] | | | * 'The two of us are upwards from here' [el] | |

While (69)a is perfectly acceptable, (69)b is odd, as it should be interpreted as 'we (the Figure) are in an upward position reckoned from ourselves (Relatum=Viewpoint=speaker).'

For compound directional nouns, however, the Relatum need not coincide with the Viewpoint, so that the following example, differing minimally from (69)b above, is perfectly acceptable.

- | | | |
|--------|-------------------------------------------------------------|-----------------|
| (70) | <i>Kuro</i> | <i>varyáse.</i> |
| | ku-ro | var-yás |
| | 1DU.INC-LOC | side-up |
| | 'The two of us are in the upper area (i.e.: upriver).' [el] | |

In the example above, *varyás* is used as a conventionalized indication of 'the upriver area.' It can be analyzed as a case where the Relatum (for example the village downriver) is either elided or even not present at a conceptual level.

9.6 Simple locational nouns

The group of morphologically simple locational nouns has been dealt with in 6.2.3. The nouns belonging to this group are repeated here.

Table 11 Locational nouns combining with *ri*

<i>noun</i>	<i>meaning</i>	<i>noun</i>	<i>meaning</i>
<i>bo</i>	upside	<i>rawn</i>	front part of canoe
<i>do</i>	inside	<i>fúwar</i>	down part of tree
<i>fadu</i>	middle	<i>wurn</i>	back part of canoe
<i>bav</i> ²⁷	downside	<i>andír</i>	side

The simple locational nouns typically evoke an intrinsic reference, although the nouns *bo* and *bav* can also be thought of as evoking an absolute frame of reference with a fixed up-down axis.

9.7 Directions of the wind

The language occasionally makes use of nouns referring to direction of the wind. In non-elicited speech, the only nouns attested are *wam-murm* 'wind-east', *wam-bark* 'wind-west'. These words can be analyzed as compounds, with *wam* 'wind' as their first member.²⁸ In a narrow sense, the nouns refer to the wind itself, where the second member of the compound refers to the direction it comes from, as illustrated in the following example:²⁹

- (71) *Kyain* *vo*, *wammurm* *anya* *iwúf* *pararei (...)*
 k<y>ain vo wam-murm an-ya i-wúf p~ara~rei
 <3SG>sit SIM wind-east GIV-3SG.SPC 3SG-blow RED~healthy
 'While he sat there, the eastern wind was blowing finely (...)' [CPaf]

In most cases, the nouns form the second part of a compound that refers to an area located in the direction the wind is coming from, as in the following example, where *wammurm* combines with *var* 'area':

- (72) *Ibur* *ve* *var* *wammurem*.
 i-bur ve var wam-murm
 3SG-leave to side wind-east
 'He left to the area in the east.' [MMel]

The corpus contains one example where *wambark* is not part of a compound but nevertheless refers to an area rather than a direction of wind:

²⁷ For this noun, the inflected form is *bavdi*, not **bavri*.

²⁸ The independent noun *wám* 'wind' has a long *á*, while this is not true for *wam* 'wind' as used in compounds.

²⁹ Probably, in a more narrow sense, the second member refers to a certain type of wind, associated with a specific part of the year, and specific weather conditions. Thus, *wam-braw* would refer to a certain type of wind that comes from approximately the same direction as *wam-bark*, but is stronger and more dangerous. Although I attempted to do some research on names for different directions of wind, I do not have a clear picture yet, partly because different people seemed to have different opinions.

- (73) (...) *vebur* *ve* *wambarek(...)*
 ve-bur *ve* *wambark*
 REL-leave to wind-west
 ' (there were people) who left westward (...) ' [TWbv]

The noun *wam-bark* 'wind-west' is also used as indication of the yearly 'windy period', which lasts from approximately November until February. As such, it can be opposed to the quiet period, referred to as *wam-pasi* 'wind-quiet', which lasts from April to September.

9.8 Left and right

For 'left' and 'right', the language uses the formatives *rasar* 'left' and *raku* 'right', respectively. They have been attested only as part of compounds, usually with *var* 'side', as in the following example:

- (74) *Snon* *anine* *vyuk* *vrasi* *var-rasarya (...)*³⁰
 snon *an-i-ne* *v<y>uk* *vra-si* *var-rasar=ya*
 male GIV-3SG.SPC-this <3SG>use hand-3PL.ANIM side-left=3SG.SPC
 'This man uses his left hand (...) ' [CB_T_62]

It is clear that 'left' and 'right' are intrinsic properties of humans and evoke an intrinsic frame of reference. This frame of reference can be extended for reference to entities in the environment, as in the following example:

- (75) *Kofrar* *ro* *var-rasar (...)*
 ko-frar *ro* *var-rasar*
 1PL.INC-run LOC side-left
 'We drive at the left road (i.e. of two parallel roads) (...) ' [RWbr]

9.9 Relative frames of reference?

Throughout this chapter, it has become clear that the Biak language makes use of both absolute and intrinsic frames of reference. The use of a relative frame of reference, however, seems virtually absent. Although an example like (75) above seems to evoke a relative frame of reference, as the description of the road's position changes with the position of the Viewpoint, it can also be analyzed as evoking an intrinsic frame of reference. The point to be noted is, that S functions not only as the origo, but also as the Relatum. Thus, the road is considered as right with respect to the (imagined) speaker's position, not with respect to a third Relatum. In a genuinely relative frame of reference, the origo and the Relatum should not coincide. Thus, a more convincing example of a relative frame of reference would be the following description of a Figure's position, given from the perspective of V as illustrated in Figure 16 below.

- (76) ??*Fernando* *dors* *ro* *rumya* *var-rasar.*
 Fernando *d-ors* *ro* *rum=ya* *var-rasar*
 Fernando 3SG-stand LOC house=3SG.SPC side-left
 '?? Fernando stands at the left side of the house.'

³⁰ *var-rasar* 'side-left' is realized as [va(r)dasar], while *var-raku* 'side-right' is realized as [va(r)daku]. This is remarkable, given the fact that for the locational nouns described in 9.5.4, an n-final allomorph is used in positions preceding /r/.

function between the two combinations (in the sense that *ya=fa* would tend to refer to 'recent past' and *wa+ra* to a past further away). The two combinations are exemplified in (78) and (79), respectively. Note that the complex article can modify either a noun referring to the time itself, as in (78), or to entities living at a certain time, as in (79).

(78) *Randak iyafayu, yakamkam.*
 randak i-ya-fa=yu ya-kam~kam
 beginning 3SG.SPC-that-to.there=U 1SG-RED~ hammer
 'Some time ago, I was hammering.' [YMcv]

(79) *Sinan siwara sóve*
 sinan s-i-wa-ra s-óve
 ancestor 3PL.AN-SPC-over.there-to.o.there 3PL.AN-say

samom.

s-am~om

3PL.AN-RED~cut.through

'Our ancestors (long ago) said: "they prepare the land".' [ATbx]

Another scheme used is that of the time coming to the front. First consider the following sentence, reporting on people attending a service. Here, the time is considered as moving *rarpon* 'to.o.there-front':

(80) *Nkoso natal anya pyum kwar rarpon (...)*
 nko-so natal an-ya pyum kwar rar-pon
 1PL.EX-accompany Christmas GIV-3SG.SPC good already to.o.there-front
 'We were quite on our way attending the Christmas-feast.' [VYht]

Although the time is considered as going to the front, on the other hand the 'here and now' may be considered as *pon* 'front' not only with respect to the past, but also with respect to the future. While the former conception is illustrated in (80) above and (81) below, sentence (82) below refers to the future generations as *nainempon* '3PL.INAN-SPC-this-to.here-front'. This complex article presents the future generations as coming to the here and now (expressed by *ma*), while this 'here and now' is considered as being in the front (expressed by *pon*).

(81) *Yáwós mpon yamnai ro dine (...)*
 y-áwós m-pon ya-mnai ro dí-ne
 1SG-speak to.here-first 1SG-stop LOC place-here
 'I have spoken up to this point (lit. frontward to here) and stop here (...)' [VYhk]

(82) *Nbedokumen fa ro*
 n-ve-dokumen fa ro
 3.PL.INAN-VBLZ-document to.there LOC

turun.temurun ro *nainempon.*

turun.temurun ro na-i-ne-m-pon

descent LOC 3PL.INAN-SPC-this-to.here-front

'They will be documents for the generations to come (lit. frontward to here).' [VYht]

10 CLAUSE COMBINATIONS¹

This chapter describes the ways in which clauses combine into sentences, while brief attention will also be given to sentence combinations. The chapter is structured as follows. While section 10.1 presents the structure of the Biak sentence, sections 10.2 through 10.10 describe clause combinations ordered in a cline running roughly from most integrated to least integrated. Section 10.2 gives an extensive discussion of complement clauses, while relative clauses form the subject of 10.3. Following an intermezzo on spatial adverbs, section 10.5 deals with consecutive clauses, and pays elaborate attention to causative constructions. Then, section 10.6 deals with clauses that are closed off with frame-final conjunctions and that form the frame for the clause to come. Following this, section 10.7 presents adverbial clauses, while 10.8 is a discussion of other syndetic clause combinations. Following a second intermezzo giving an overview of conjunctions, section 10.10 discusses asyndetic coordination. With section 10.11 we have come to the sentence combinations, which can be seen as the least integrated form of clause combinations. The chapter closes with a presentation of several instrumental constructions in 10.12, as the different instrumental constructions form a good illustration of possible degrees of clause integration.

10.1 Structure of the sentence

The form of a Biak sentence can roughly be viewed of as presented in the following figure. Recall that sentences are defined as bounded by their final intonation contour, marked by falling intonation, or special intonation contours used for interrogatives (3.11). The figure shows a clause (in capitals), optionally preceded by one or more constituents that function as frames, and optionally followed by one or more other clauses.²

Figure 1 Structure of a Biak sentence

<i>constituents</i>	(Adverb/NP/PP/clause)*	CLAUSE	(clause)*
<i>function</i>	frame,	interpreted within the framework provided by the frame	

A sentence, then, can consist of one or more clauses, and there is in principle no maximum to the number of clauses combining into one sentence. As explained in 8.2 and 8.3.2, the initial constituent is called the frame when it receives a special morphosyntactic treatment marking it as such.³ This frame sets the framework within which the following clause is to be interpreted. It is usually closed off by a pause accompanied by non-final intonation contour, while the relation between the frame and the clause is often specified by the use of frame-final (or, less

¹ Although I am eager to write more about clause combinations, and especially about the role of clause linking in the structuring of discourse, limitation of time forced me to write about these techniques rather superficially and impressionistically. For future research on Biak clause combinations, I would recommend research on the relation between relative clauses and clauses or phrases that constitute a frame for the clause to come, as well as research on tail-head linkage, distribution and thematization. The result of this research could give an additional perspective on the relation of Biak to languages in the area, like the Papuan languages as described in De Vries (2005).

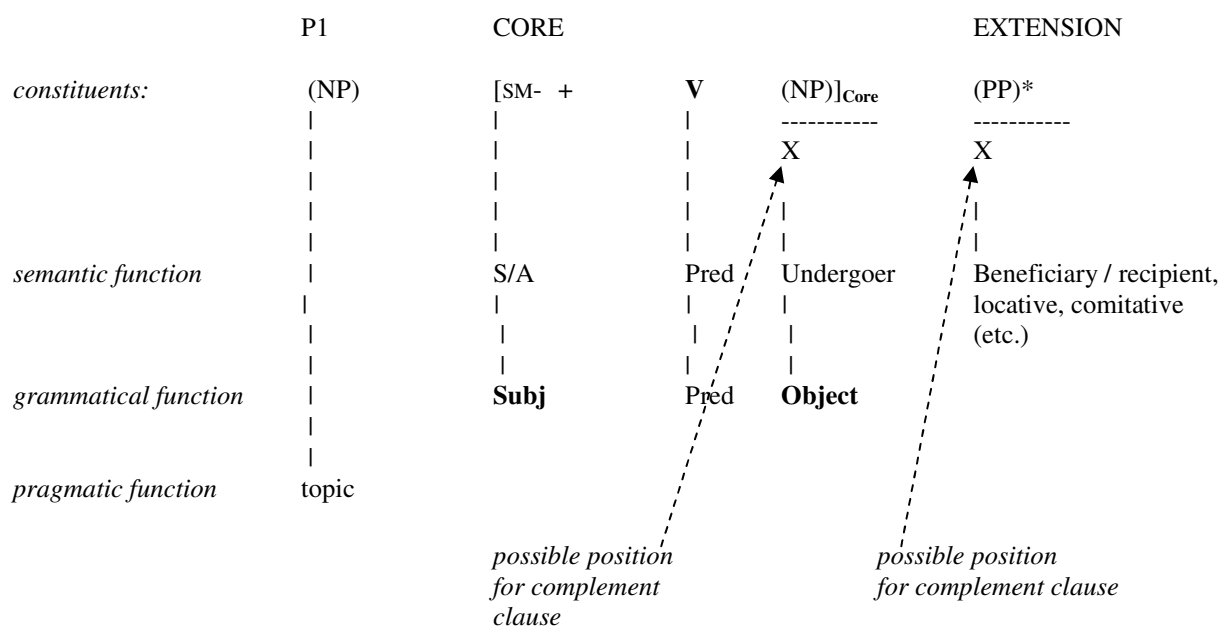
² As indicated in Figure 1, one clause can be preceded by more than one frame, which is reminiscent of thematization strategies in Papuan languages, described in De Vries (2005, referring to Heeschen 1998). These thematization strategies are very much tied to the structure of the discourse as a whole. In this Chapter, I will not go further into sequences of frames.

³ It cannot be denied, however, that the definition of what precisely constitutes a frame is still rather vague, and needs precision in further research.

frequently: clause-initial) conjunctions. In narratives, the frame often picks up or summarizes (part of) the final part of the preceding sentence, which will be illustrated at the end of this section.

While the figure above describes how clauses in sequence can form a sentence, it is also possible for a clause to be integrated into, or to be part of another clause. This is clearly the case for those clauses that function as arguments of the predicate of a matrix clause. I will refer to clauses that function as argument of another clause as 'complement clauses'. The complement clause can take the position usually reserved for the object or take the position of the beneficiary / recipient. This is shown in Figure 2.

Figure 2 Clause containing a complement clause



In this chapter, then, the primary distinction for clauses following another clause (which is not a frame) is that between complement clauses and non-complement clauses. Only complement clauses are convincingly part of the matrix clause. The structural position of adverbial clauses, however, remains unclear. While it is clear that adverbial clauses (described in 10.7) bear a different semantic relation to the main clause than the (other) syndetic clauses in 10.8, it is not clear whether they occupy different structural positions with respect to the preceding clause.

In conjoining clauses, the Biak language makes extensive use of conjunctions. These conjunctions can be characterized according to the position they can take or tend to take with respect to intonational breaks. The following positions can be distinguished:

- position before intonational break, typically last position of frame,
- clause-initial (possibly sentence-initial) post-pausal position,
- position that is neither preceded nor followed by a pause.

This introductory section is closed off with the following passage, which serves to illustrate some of the notions just introduced. It is the introductory passage of a joke, told in the rather natural setting of a group of men drinking tea, smoking and chewing betelnuts. In (1) below we find the conjunction *vo* 'SIM' neither followed nor preceded by a pause.

- (1) *Imbe yafár vo korower#*
 imbe ya-fár vo ko-rowr
 be.about 1SG-tell SIM 1PL.INC-hear
 -----CLAUSE----- COORDINATE CLAUSE
 'I want to tell and we listen.' [YMaa]

- (2) *Yafár ro ... pendeta oser#*
 ya-fár ro pendeta oser
 1SG-tell LOC minister one
 -----CLAUSE-----
 'I tell about ... a certain minister.' [YMaa2]

In (3), however, the same conjunction is used in final position of the frame, while in (4) it is used again as in (1), neither followed nor preceded by a pause. Note that in both (3) and (4) the frame repeats part of the final part of the preceding sentence and adds one element (*hari minggu* 'Sunday' and *vo dóve* 'and he said', respectively). This is an example of a certain type of tail-head linkage. Although it is clear that Biak stories may exhibit tail-head linkage patterns, more research is necessary on the question whether this technique is frequent, and after the relation between Biak and other languages in the area.⁴

- (3) **Pendeta nanine hari minggu vo +**
 pendeta an-i-ne hari minggu vo +
 minister GIV-3SG.SPC-this day week SIM +
 -----FRAME-----

vyekhotba ro gereja#
 v<y>e-khotba ro gereja
 <3SG>vblz-sermon LOC church
 -----CLAUSE-----

'This teacher, (it was) on a Sunday (and), he preached in the church.' [YMab]

- (4) **Vyekhotba ro gereja vo dóve: +**
 v<y>e-khotba ro gereja vo d-óve +
 <3SG>vblz-sermon LOC church SIM 3SG-say +
 -----CLAUSE----- COÖRDINATED CLAUSE
 -----FRAME-----

“printa samfur ryok kwar
 printa samfur r<y>ok kwar
 order ten <3SG>resound already
 -----CLAUSE-----

⁴ For a typology of tail-head linkage in Papuan languages, see De Vries (2005).

fa harus ... koswar min kovesi”.
 fa harus=u ... ko-swar min ko-ve=s-i
 CONS must=U ... 1PL.INC-love member 1PL.INC-POS=3PL.ANIM-SPC
 -----ADVERBIAL (or complement?) CLAUSE-----
 'He preached in the church and said: "the ten commandments have resounded already, that we must love our neighbors".' [YMac]

The conjunction *voi* 'but' is frame-final and signals that the information following is more or less unexpected.

(5) *Vyekhotba ro gereja voi,*
 v<y>e-khotba ro gereja voi
 <3SG>vblz-sermon LOC church but
 ----- FRAME -----

romá vyedyá isya dáksó
 romá v<y>e=d-ya is-ya d-ák-so
 son <3SG>POS=3SG-SPC 3SG.PRED-that 3SG-also-accompany
 ----- INDEPENDENT SERIAL

ro kebaktian anine #
 ro kebaktian an-i-ne
 LOC church.service GIV-3SG.SPC-this
 CONSTRUCTION-----

'He was preaching in the church, but his son was also attending this service.' [YMad]

The conjunction *indya* 'so', finally, serves to present the clause as following from the preceding context.

(6) *Indya romá vyanine ryowr epéne.*
 indya romá v<y>-an-i-ne r<y>owr epén
 so boy <3SG>-POS-GIV-3SG.SPC-this <3SG>hear push.tight
 ----- CLAUSE -----

'So his son listened and remembered.' [YMaé]

10.2 Verbs taking clausal arguments

This and the following section discuss verbs that take clausal arguments. A verb is considered as taking a clausal argument if the predicate projected by the verb needs the clausal constituent to form a complete clause. In other words: the clause is grammatically incomplete when the clause functioning as argument of the verb is left out.⁵ All clausal arguments occupy one of the two positions indicated in Figure 2.

Verbs taking clausal arguments can be classified according to the following criteria.

- 1) With some verbs the clausal argument is optionally or obligatorily introduced by a conjunction, while with other verbs the complement clause directly follows the verb.

⁵ Although this argument is somewhat vague, it falls outside the scope of this thesis to provide more rigid criteria to distinguish between clauses that are arguments and clauses that are not.

- 2) For some verbs, the subject of the clausal complement clause must be coreferential with that of the main clause, while for others this is of no importance. Again other verbs (like *fawi* 'know', described in 10.2.4) have a different interpretation depending on the question whether the subjects are coreferential or not.

Given the rather limited number of verbs that can take clausal complements and given the more or less idiosyncratic properties of those, I will discuss most of the clausal-complement-taking verbs attested in the corpus one by one.

10.2.1 Óve 'say' as verb of reporting and intention

The verb *óve* 'say' either serves to introduce direct and indirect speech, or to express intention. When introducing direct speech, the verb is often accompanied by a special intonation contour, similar to the contour used to close off a clause-preceding frame. An example of *óve* 'say' introducing direct speech is given with *d-óve* '3SG-say' in (4) above, while an example of *óve* introducing indirect speech is given with *s-óve* '3PL.AN-say' in (7).

- (7) *Vín* *anya* *vyesya* *sóve*
 vín an-ya v<y>e=s-ya s-óve
 female GIV-3SG.SPC <3SG>SPC=3PL.AN-SPC 3PL.AN-say
- mov* *sena* *nairi.*
 mov se=na na-i-ri
 place 3PL.AN.POS=3PL.INAN.SPC 3PL.INAN-PRED-ANAPH
 'The wife her ones say that it is their place.' [ALbf]

As a verb of intention, the matrix verb *óve* is followed by a clause headed by a verb whose subject is coreferential with the subject of the matrix verb, as is the case in (8) below.

- (8) *Indya* *d-óve* *isu* *vukorya* *randum*
 indya d-óve i-su vukor=ya ran-rum
 so 3SG-say 3SG-stick.out head=3SG.SPC to.o.there-inside
- myám* *ra* *fyomya* *do.*
 m<y>ám ra fyom=ya do
 3SG-see along vase=3SG.SPC inside
 'So it (the dog) planned to stick its head into the vase and look along the inside.' [FPaq]

In the following clause combination, the subject of *ya-yas* '1SG-sharpen' is coreferential with the subject of the matrix verb *y-óve* '1SG-say'. It refers to ego's planning to sharpen a certain sickle, which – as is clear from the context - did not happen, because he has lent out his file. The sentence also contains a relative clause - whose structure has been indicated in the second line to increase the readability of the example – and a causative construction, constructions that will be dealt with in 10.3 and 10.5, respectively.

- (9) *Yóve* *yayasa* **sabit** *ker* *Sarmon* *vye*
 y-óve ya-yas=o NP[sabit] ker Sarmon v<y>e
 1SG-say 1SG-sharpen=O sickle part Sarmon <3SG>POS

<i>Erasmus</i>	<i>kmar</i>	<i>suve</i>	<i>fa</i>	<i>ekari.</i>
rel clause[Erasmus	kma-r	su-ve	fa	e-kar]rel clause-i]NP
Erasmus	father-3SG.POS	3DU-give	CONS	REL-break-3SG.SPC

'I planned to sharpen Sarmon's sickle, which Erasmus and his father had caused to break.' [YWfz]

10.2.2 *Marisn* 'enjoy'

Unlike *óve* 'say', the verb *marisn* 'enjoy' not only takes clausal complements, but can also combine with a (pro)nominal object, as in *wa-marisn i-wa-ne* '2SG-enjoy 3SG.SPC-that-Quest'-> 'do you like that one?' Its clausal argument may be introduced by the conjunction *fa* 'CONS', as in (10), or asyndetically follow the verb, as in (11). Note that the negative adverb *va* follows the complement clause, as such following the entire proposition (running from *imarisn* through *dori*) that it has scope over.

(10) *Voi mankroder anya imarisn fa*
 voi man-kroder an-ya i-marisn fa
 but bird-frog GIV-3SG.SPC 3SG-enjoy CONS

<i>denf</i>	<i>ro</i>	botol	<i>anya</i>	<i>dori</i>	<i>va.</i>
d-enf	ro	botol	an-ya	do-ri	va
3SG-sleep	LOC	bottle	GIV-3SG.SPC	inside-POS.SG	not

'But the frog did not like to sleep in the bottle.' [FAad]

(11) **Sehingga** *Mansern imarisn kaku*
 sehingga Manseren i-marisn kaku
 so.that Lord 3SG-enjoy really

<i>koso</i>	printa	printa	<i>vyena.</i>
ko-so	printa	printa	v<y>e=na
1PL.INC-accompany	order	order	<3SG>POS=3PL.INAN.SPC

'So that the Lord really likes that we follow his commandments.' [PDat]

In elicitation, *fa* 'CONS' can be elided in (10) and added in (11) without any change in meaning, while the same was true in other contexts. So far, then, no functional difference has been found between the use and non-use of *fa* 'CONS'. More on the use of *fa* can be found in 10.5.

10.2.3 *pok* 'able' used for the expression of ability and permission

The verb *pok* 'able' behaves similarly to the verb *marisn* in two respects. First, it can combine with both (pro)nominal and clausal complements. Second, its clausal complement may but need not be introduced by the conjunction *fa*. An example of *pok* 'able' taking a nominal complement is given in (12).

(12) *Íwe ra nupok i va ro taksiya do.*
 i-^hwe ra nu-pok i va ro taksi=ya do
 3SG-scream until 1DU.EX-able 3SG not LOC taxi=3SG.SPC inside

'It screamed until we could not bear it any more in the taxi.' [MBhw]

10.2.4 *Fawi* 'know' as a verb of cognition and capability

The verb *fawi* 'know' is basically a verb of cognition, expressing that the subject of the verb knows (about) something. It usually takes a clausal complement, but can also take a nominal object, as in the following example:

- (16) *Yákfawi* *farfyárna* *va* *rya* (...)
 y-ák-fawi farfyár=na va rya
 1SG-also-know story=3PL.INAN.SPC not so
 'I do not know the stories, so (...)' [VYkb]

In most of the examples attested in the corpus, the clause headed by *fawi* 'know' is negated, which probably is an accidental gap. A typical expression is illustrated in (17):

- (17) *Sufawi* *va* *voi,* *mankroder* *anya*
 su-fawi va voi man-kroder an-ya
 3DU-know not but bird-frog GIV-3SG.SPC
- syáe* *bur* *fyom* *ani.*
 s<y>áe bur fyom an-i
 3SG-go.out from vase GIV-3SG.SPC
 'But while they did not know, the frog went out of the vase.' [FFae]

In the example above, the clause headed by *fawi* 'know' functions as frame for the following clause, which is clear from the use of the conjunction *voi* 'but' in combination with frame-final intonation. The following clause, then, is not a complement of *fawi*, but is the main clause for which the clause headed by *fawi* provides the background. The non-complemental character of the clause is also clear from the position of *va*, which is part of the clause headed by *fawi* 'know', and does not follow the clause headed by *s<y>áe* '<3SG>go.out'.

Although the construction as illustrated by (17) above seems more frequent, it is also possible to combine *fawi* 'know' with a clausal complement. An example of this use is given with (18) below.

- (18) *Hanna* *ifawi*
 Hanna i-fawi
 Hanna 3SG-know

[*Wilco rwa mumandya*]_{Complement} *va*.⁸
 Wilco r<w>a mu-ma=n=rya va
 Wilco <2SG>go PATH-to.here=SEP=IRR not
 'Hanna did not know that Wilco you were on your way to here.' [YWar]⁹

First note that the negative adverb *va* again follows the complement clause. Second note that the complement clause is closed off by (a separator followed by) the clitic *ri~rya* (the latter allomorph used in non-prepausal position). This is a modal clitic, expressing that an event is not real or hoped to be not real from the perspective of the entity whose state of knowledge is being expressed. I will come back to the use of *ri* at the discussion of *mkák* 'fear' and *mewr* 'refuse' below.

The corpus contains only a handful of clauses headed by *fawi* that are both positive and take a clausal argument, which makes it difficult to draw any rigid conclusions with respect to the range of possible clause structures. On the one hand, the corpus contains two examples of complement clauses introduced by the Indonesian complementizer *bahwa*, one of which is given in (19).

(19) *Vondi sifawi bahwa Wardo...*
 von-ri si-fawi bahwa Wardo
 side-outside 3PL.AN-know that Wardo

bukan mnu ri kyor anskoine va vo (...)
 bukan mnu ri kyor an-sko-i-ne va vo
 not village NUM.LNK three GIV-3PC-SPC-this not SIM
 People from outside know that Wardo ... it is not these three villages (that they know, but they know these three villages together as Wardo).' [VYfg]

The verb *fawi* can also be used to express capability. In that case, the verb *fawi* 'know' heads a complement clause whose verbal subject is coreferential with that of *fawi*. An example is given with (20) below.

⁸ The order of the IRR-marker *ri* and the negative adverb *va* is free. Thus, in elicitation, both of the following examples were considered acceptable:

y-ák-fawi	r<y>a	ma	va	ri	/ y-ák-fawi	r<y>a	ma=n=dya	va
1SG-also-know	<3SG>go	to.here	not	IRR	/ 1SG-also-know	<3SG>go	to.here=SEP=IRR	not
I did not know that he had come' [el]								

⁹ Note that the clitic *ri* 'IRR' is used (in combination with negation in the main clause) to express not knowing *that*. The corpus of non-elicited speech contains no examples of the use of *fawi* 'know' to express not knowing *whether*. To express 'not knowing whether', the language need not use the verb *fawi* 'know', but uses the dubitative particle *ke*, which has been discussed in 3.11. In elicitation, I was given an example where the verb *fawi* and the use of *ke* 'DOUBT' were combined:

(<i>Yafawi</i>)	<i>rya</i>	<i>ma</i>	<i>ke</i>	<i>rya</i>	<i>ma</i>	<i>vayo.</i>
ya-fawi	r<y>a	ma	ke	r<y>a	ma	va=yo
1SG-know	<3SG>go	to.here	DOUBT	<3SG>go	to.here	no=O
I do not know whether he will come or not.' [el]						

The structure of the sentence above is not entirely clear, in the sense that the negative adverb *va* seems both to negate the (matrix?) verb *fawi* 'know' and the (complement?) verb *r<y>a ma* '<3SG>go to.here'.

- (20) *Sinan* *ansya* *sifawi* *siwásya* *va (...)*
 sinan an-s-ya si-fawi si-wásya va
 ancestor GIV-3PL.AN-SPC 3PL.AN-know 3PL.AN-read not
 'The ancestors could not write' [YRcr]

An example of *fawi* 'know' expressing capability in a positive clause was given in elicitation:

- (21) *Ifawi* *fyarfyáre.*
 i-fawi f<y>ar~fyár
 3SG-know <3SG>~RED~tell
 'He can tell stories.' [el]

According to my informants, this use of *fawi* is functionally equivalent to the use of *fawi* as second member of a complex serial verb construction, as illustrated in (23):

- (23) *F<y>afyár* *fawi*
 f<y>a~fyár fawi
 3SG-tell know
 'He can tell stories.' [el]

More on serial verb constructions can be found in 4.3.2.

10.2.5 Verbs taking irrealis complements: *mkák* 'fear' and *mewr* 'refuse'

The verbs *mkák* and *mewr* behave similarly in the following respects. First, both verbs can combine either with an NP-object or with a clausal object. Second, there is a very strong tendency for the clausal complement to be closed off with the irrealis marker *ri* 'IRR'. Examples of the verbs taking a (pro)nominal object are given in (24) and (25).

- (24) *Imkák* *kapai* *nanine.*
 i-mkák kapai an-i-ne
 3SG-fear mouse GIV-3SG.SPC-this
 'He was afraid of this mouse.' [FYbq]

- (25) *Yara* *fra* *ro* *wai¹⁰* *simewr* *aya (...)*
 ya-ra f-ra ro wai=0 si-mewr aya
 1SG-go to.there-sea LOC canoe=nonSP.SG 3PL.AN-refuse 1SG
 'When I attempted to go there seawards and enter a canoe, they refused me (...)'
 [TWdf]

An example of *mkák* 'fear' combining with a clausal complement is given with (26).

- (26) *Yamkák* *wánkar* *aya* *vo*
 ya-mkák w-ánkar aya vo
 1SG-afraid 2SG-deceive 1SG SIM

¹⁰ The formative *o* in *wai=0* 'canoe=O' is best analyzed as a nonSP.3SG article. The article has scope over the preceding NP, and indicates that the NP does not refer to one specific canoe, but to several single canoes in sequence.

yasevn aw ma mun ayandi.
 ya-sevn aw ma mun aya=n=ri
 1SG-open 2SG and 2SG.kill 1SG=SEP=IRR
 'I am afraid that you deceive me and that when I have freed you, you kill me.' [PMae]

Note how the complement of *mkák* is closed off with *ri*, showing that both the clause *yasevn aw* 'I free you' and the coordinated clause *mun aya* 'you kill me' fall under the scope of *mkák* 'fear'. The corpus contains one example of the verb *mkák* followed by a clause introduced with the marker of a negative wish *vude* (cf. 3.7.3). This example is given in (27) below.

(27) *Indya yamkák vude komnis sindi.*
 indya ya-mkák imbude ko-mnis si=n=ri
 so 1SG-fear let.it.not.be.that 1PL.INC-be.like 3PL.ANIM=SEP=IRR
 'So I am afraid that we are like them.' [PDdm]

An example of *mewr* 'refuse' taking a clausal complement is given with (28). Note how *ri* 'IRR' again marks the end of the complement, and shows that the clause *ido* 'he went down' falls outside the scope of *mewr* 'refuse.'

(28) *Ma imsór kwar*
 ma i-msór kwar
 and 3SG-angry already

rya imewr fyár ri vo ído.
 rya i-mewr f<y>ár ri vo i-^hdo
 so 3SG-refuse <3SG>tell IRR SIM 3SG-descend
 'But he was angry already, so he refused to tell and went down (from the pulpit)'
 [MBbj]

The subject of the matrix verb and the subject of the dependent verb may be coreferential, as is the case in (28), but may also refer to different entities, as is the case in (29) below:

(29) *Simewr iso ro taksi nanyandi.*
 si-mewr i-so ro taksi an-ya-n=ri
 3PL.AN-refuse 3SG-accompany LOC taxi GIV-3SG.SPC=SEP=IRR
 'They refused him to accompany (them) in the taxi.' [MTab]

10.2.6 *Mám* 'see' and *rowr* 'hear' as verbs of perception

This section discusses the verbs *mám* 'see' and *rowr* 'hear', which both are examples of perception verbs. These verbs can take both phrasal objects and clausal complements. An example of a clausal complement is given with *randipsya san rovean vyena* 'the pigs had eaten his food' in (30).

(30) *Rasras arwo rya nde myám*
 ras~ras arwo r<y>a n-re m<y>ám
 day~day morning <3SG>go 3.PL.INAN-land <3SG>see

<i>randipsya</i>	<i>san</i>	<i>rovean</i>	<i>vyena, (...)</i>
randip=s-ya	s-an	rovean	v<y>e=na
pig=3PL.AN-SPC	3PL.AN-eat	food	<3SG>POS=3PL.INAN.SPC

Morning by morning he went landwards to see that the pigs had eaten his food (...)
[MMaj]

The sentence above is part of the narrative on the culture hero Manarmaker, and expresses how Manarmaker went to see his garden every day. Time and time again he saw that the pigs had eaten his food. In this sentence, then, the semantics make clear that it is indeed the entire clause that should be seen as the complement of *m<y>ám*. Manarmaker does not see the pigs but (the result of) their having eaten his food. This means that the noun phrase *randip=s-ya* 'the pigs' is part of the complement clause (a topic, coreferential with the subject of *san* 'they eat'), and not a complement of the matrix verb. The complement clause thus takes the position normally reserved for the object.

An argument supporting the analysis given above is that the matrix verb cannot be followed by a pronoun, as is clear from the comparison of (31)a and (31)b.

- (31)a *yamám* *myun* *swari*.
ya-mám m<y>un swa-ri
1SG-see <3SG>hit spouse-POS.3SG
'I saw that he (had) hit his wife.' [eI] ¹¹
- b* *yamám* *i* *myun* *swari*
ya-mám i m<y>un swa-ri
1SG-see 3SG <3SG>hit spouse-POS.3SG
* 'I saw that he hit his wife'

The unacceptability of (31)b above can easily be accounted for when the pronoun is considered part of the complement clause. As shown in 8.3.2, the preverbal topic position can be occupied by a full NP like *randipsya* in (30) above, but not by a pronoun as in (31)b. If the pronoun is considered as object of the matrix verb, however, there is no reason to account for the acceptability of (31)a compared to the unacceptability of (31)b.

The following sentence, finally, exemplifies the use of *rowr* with a clausal argument.

- (32) *Ryowr* *mansar* *aniponwa* *fyarfyár*
r<y>owr man-sar an-i-pon-wa f<y>ar~fyár
<3SG>hear male-old GIV-SPC-front-over.there tell-3SG-
- ro **kelahiran** Mansren Yesus.
ro kelahiran Manseren Yesus
LOC birth Lord Jesus
'He heard the man in the front tell about the birth of the Lord Jesus.' [MBba]

¹¹ I expect that this sentence can only refer to the subject's concluding that the Agent hit his wife, and not to his watching the Agent at the moment of hitting. In the latter case, a speaker would probably use: *yamam i voi, myun swari* 'I watched while he hit his wife.' More research is necessary, however, to find out whether this intuition can stand the facts.

10.2.7 VUK 'give' taking clausal complements

A final verb taking clausal arguments is *vuk* 'give' when used as an instrumental verb. An example of this use is given here.

- (33) *Vyuk sumberya kyór aisnáwi.*
 v<y>uk sumber=ya k<y>ór ai-snáw=i
 <3SG>give large.knife-3SG.SPC <3SG>cut wood-branch=3SG.SPC
 'He uses a large knife to cut the branch.' [CB_J_03]

A detailed discussion of instrumental constructions follows in section 10.12, where constructions based on *vuk* are compared to verbs taking the instrumental prefix *k-* and to the use of the Malay loan word *pakai* 'use.'

10.3 Relative clause constructions

10.3.1 Introduction

Following Kroeger (2002:165), a relative clause construction is a noun phrase that contains a clausal modifier. An example of a Biak relative clause construction is given with *jemaat eveterima papur Mansernina* 'the churches that have received the Lord as the last' in the example below.

- (34) *Voi jemaat eveterima papur Mansernina,*
 voi jemaat e-veterima pa~pur Manseren=i=na
 but church REL-receive¹² RED~back Lord=iPROP=3PL.INAN.SPC
 NP[head.noun] REL.CLAUSE[relativizer_r-verb]]=determiner]NP_i
- sekarang na efánamna.*
 sekarang na e-fánam=na
 now 3PL.INAN REL-close-3PL.INAN
 'But the churches that have received the Lord as the last, now are the ones that are (most) close.' [PDbw]

In the example above, the noun phrase *jemaat* through *Mansernina*, the end of which is marked by the determiner =*na*, contains the clausal modifier *eveterima papur Mansernina* 'who have received the Lord as the last.' The clausal modifier – to which I will refer as the relative clause – is introduced here by the prefixal verbal relativizer *e-* 'REL'. This relativizer is in free variation with its allomorph *ve-* 'REL' and takes the position otherwise taken by the pronominal subject prefixes. As such, it is an expression of the subject of the relative clause, and it is used only if this subject is coreferential with the referent of the entire NP. In the example above, then, the subject of *veterima* 'receive' is coreferential with the referent of the NP as a whole, which is made explicit in the fourth line by the co-indexation markers on the relativizer and the determiner. In the current example, the referent of the NP as a whole is expressed overtly by the head noun, *jemaat* 'churches'. We will see in section 10.3.2, however, that many relative clauses lack an overt head.

In this thesis, I will refer to relative clauses whose subject is coreferential with the referent of the NP as a whole (and whose verb is therefore prefixed with *ve~e*) as subject relative clauses.

¹² Although the verb *ve-terima* consists of a verbaliser *ve* and a loan word **terima** 'receive', for presentational reasons it is presented here as a morphologically simple verb.

Stated otherwise, in subject relative clauses the referent of the entire NP matches with the subject of the relative clause, expressed by *ve~e*.

Now consider (35), which is an example of an *object relative clause*. Note that the determiner closing off the noun phrase is preceded by a separator *n*, which we will come back to in 10.3.3.

(35)	Yang	penting	<i>nkove</i>	jalankan		
	yang	penting	nko-	ve-jalankan		
	REL	important	1PL.EX-	VBLZ-make.walk		
	tugas		mkokyar		ve	inkonna.
	tugas		mko-kyar		ve	inko=n=na
	task		2PL-entrust		to	1PL.EX=SEP=3PL.INAN.SPC
	NP[head noun		REL CLAUSE[SM _j -verb <i>e_i</i>]REL CLAUSE =det]NP _i
	'What is important, is that we perform the tasks that you have entrusted to us.' [PDeh]					

Here, the noun phrase, running from *tugas* through *inkonna*, is modified by the relative clause *mkokyar ve inko* 'that you have entrusted to us'. The verb of the relative clause is not prefixed with the relativizer *ve-*, but with a normal pronominal subject prefix *mko-*. The subject of the relative clause, then, is not coreferential with that of the noun phrase as a whole. Instead, the referent of the entire NP, overtly expressed by *tugas* 'task', is associated with the role of *object* in the relative clause. I have tried to show this association by placing co-indexation signs on the NP as a whole and on the post-verbal position that is now empty, but usually (in non-relative clauses) reserved for the verbal object. The example shows very well that relative clauses do not contain resumptive pronouns; while in non-relative clauses one would expect the object to follow the verb, this is not possible in the relative clause. The following relative clause construction, then, is unacceptable:

(36)*	tugas	<i>mkokyar</i>	<i>i</i>	<i>ve</i>	<i>inkonna.</i>
	tugas	mko-kyar	i	ve	inko=n=na
	task	2PL-entrust	3SG	to	1PL.EX=SEP=3PL.INAN.SPC
	NP[head noun	REL CLAUSE[SM _j -verb	<i>i_i</i>]REL CLAUSE det]NP _i

Example (37), finally, is an illustration of an *oblique relative clause*. Here, the referent of the NP as a whole is associated with an oblique argument of the relative clause, *in casu* the complement of *ro*. This associative relation has been indicated in the fourth line.

(37)	Mov	kokón	ro		ine
	mov	ko-kón	ro		i-ne
	place	1PL.INC-sit	LOC		3SG.SPC-this
	NP[head.noun	[verb	prep <i>e_i</i>]REL CLAUSE		determiner]NP _i
	<i>karuibom</i>	<i>ine</i>	<i>ido</i>	+	<i>sór</i> <i>ve</i> (...)
	karui-bom	i-ne	ido	+	s-ór ve ...
	stone-top	3SG.SPC-this	THEM	+	3PL.AN-call as ...
	'The place at which we sit here, on top of the stones here, is called (lit. they call as(...))' [TWap]				

The structure of (37) can be clarified by adapting it slightly into the form given in (38).

While there is a very strong tendency for the sequence of a pronoun / determiner and another pronoun / determiner to be separated by *n*, the corpus contains some instances of sequences lacking the separator. The separator is also used to separate the final determiner from a preceding directional marker or motion marker, even when this directional is not part of a pronoun or determiner. Consider the following example, where the separator marks the boundary between the directional *muma* 'PATH-to.here' and the following determiner *ya* '3SG.SPC'.

- (46) (...) *sinanu* *Maker* *vera* *veyún* *mumanya*
 sinan=u Maker ve-ra vey-ún mu-ma=n=ya
 parent=U Maker REL-go REL-take PATH-to.here=SEP=3SG.SPC
 '(...) sir Maker who went to bring along (the gospel) to.here (...) ' [TWge]

Some directionals, however, seem to exclude the use of a separator. One of these is the directional *re* 'land', as is illustrated in the following example:

- (47) *mov* *sifararúr* *san* *roro* *swan* *irawa*
 mov si-f~ara~rúr s-an ro swan i-ra-wa
 place 3PL.AN-RED-make 3PL.AN-eat LOC sea 3SG.SPC-sea-over.there

 *mumre(*n)ya,*
 mu-m-re (*=n)=ya
 PATH-to.here-land=(*SEP)=3SG.SPC
 'The way in which they worked and ate from the sea over there in this direction
 landwards' [VYbg]

Summarizing, there is a very strong tendency to use separators to mark the boundary between a RC-final pronoun / determiner / directional / motion marker and the NP-final determiner. In certain cases, however, the use of a separator does not seem necessary, while some directionals seem to exclude the use of a separator. A more precise characterization awaits further investigation, and the few results from elicitation yielded so far seem to point towards dialectal differences at this point.

10.3.4 Combinations of relative clauses

One NP may contain more than one clausal modifier, in other words: more than one relative clause. I will refer to an NP containing more than one relative clause as a complex relative clause construction (CRCC). An example of a complex relative clause construction was given with (46) above, while another is given with (48) below, in which the two relative clauses are linked by the conjunction *fa* 'CONS'.

- (48) *Var* *ekbás* *fa* *evark* *ine, (...)*
 var e-kbás fa e-vark i-ne
 side REL-fall.apart CONS REL-lie 3SG.SPC-this
 'This side that has fallen apart so that it lies here, (...) ' [SSam]

Another example of a CRCC with RC's linked by *fa* 'CONS' is given with (49). The sentence is an answer to the researcher's question, who is showing the addressee a photograph containing a scene from one of the films that the two have watched just before. The researcher asks the addressee: *foto nanine, ryo film sai iri* 'this photograph, from which film is it.' The addressee then answers:

- (49) *Insandya* *vekankun* *fa* *veyanansya*
 insandya ve-kan~kun fa vey-an~an=s-ya
 just REL-RED~burn CONS REL-RED~eat-3PL.AN-SPC

si-i-ri.

si-i-ri

3PL.AN-PRED-ANAPH

'These are the ones that cooked so that they ate.' [S_T_127]

While the RC's in (48) and (49) above were conjoined by the conjunction *fa* 'CONS', the following sentence contains both an RC-pair linked by *vo* 'SIM' and two asyndetically joined relative clauses (*eyóve ena saprop*). The noun phrase lacks a determiner, as it is used as a generic reference to 'people that are proud and ... (etc.).'

- (50) *Snonkaku* *eyevr* *mankun* *vo* *eyóve* *ena* *saprop.*
 snonkaku ey-evr mankun vo ey-óve e-na saprop
 human.being REL-praise self SIM REL-say REL-have land
 'People that are proud (lit. praise themselves) and say that they have the land.' [ALal]

In all of the relative clauses given in (48) through (50), the prefixal relativizer *ve-* indicates coreference of the RC-subject with the referent of the NP as a whole. The use of the relativizer *ve-* is not influenced by the presence of preceding non-subject RC's within the same NP, as is clear from the bold-printed headless relative clause in the following example, the structure of which is indicated in the second line. The NP contains a subject relative clause preceded by an object relative clause:

- (51) *Ín* *ri* *sikun* *fa* *vesnarm* *ine* *ke?*
 in ri **[[si-kun]RC1** **fa** **[ve-snarm]RC2** **i-ne]NP** ke
 fish GEN.SG 3PL.AN-burn CONS REL-smell 3SG.SPC-this DOUBT
 'Is it maybe a fish that they cook so that it smells?' [TWdx]

A rather complex example of a CRCC is given with *sabit Sarmon vye Erasmus kmar suve fa ekari* 'Sarmon's sickle that Erasmus and his father had caused to break' in (52) below. The head noun *sabit* is first followed by a possessor noun, and then followed by the initial part of the possessive pronominal (*vye*). Following a structure discussed in section 3.2.6, the possessive pronominal is then interrupted by the first relative clause, which runs from *Erasmus* through *suve* 'the two give'. This first RC is linked to the following RC by the conjunction *fa* 'CONS' so that the two RC's together form a causative construction of the type further discussed in 10.5.

- (52) *Yóve* *yayasa* **sabitker** *Sarmon* *vye*
 y-óve ya-yas=o NP[sabit-ker Sarmon v<y>e
 1SG-say 1SG-sharpen=O sickle-part Sarmon <3SG>POS
[head noun **Possessor**

Erasmus kmar suve fa ekari.
 RC1[Erasmus kmar su-ve] fa [e-kar]RC2.i]NP
 Erasmus father-3SG.POS 3DU-give CONS REL-break-3SG.SPC
Subject of RC (Erasmus' father)
 'I planned to sharpen Sarmon's sickle, which Erasmus and his father had caused to break.' [YWfz]

A final example of a CRCC is given with (53) below.

(53) **Hambahamba Mansern vye mkokinfir (...)**
 hamba~hamba Manseren v<y>e mko-kinfir
 slave~slave Lord <3SG>POS 2PL-choose

fa veyors ro varpon roro rasras.¹⁵
 fa vey-ors ro var-pon roro ras~ras
 CONS REL-stand LOC side-front LOC day~day
 'Servants of the Lord that you have chosen (...) to stand daily in the front.' [PDak]

10.3.5 Relative clauses, clefts and topicalization

Relative clauses are used in the formation of cleft constructions. Consider the following example:

(54) *Ma ras ansuiwara mande*
 ma ras an-su-i-wa-ra mande
 and day GIV-3DU-SPC-over.there-to.o.there TOP

sinan koya koi efaraya voi, (...)
 sinan ko=ya ko-i e-fara=ya voi
 parent 1PL.INC=SPC 1PL.INC-FOC REL-hold.the.rudder-SPC but
 'In former days, we parents we were the ones who held the rudder, but (nowadays, the young people think they should hold the rudder themselves.' [BVax]

The general structure of cleft constructions is presented in Figure 3, where *i* is a marker of focus

Figure 3 Cleft constructions

NP ± (pron (+ *i*)
 _____ + []headless relative clause
 pron (+*i*)

As indicated in the figure, the minimal focus construction consists of an NP or pronoun directly followed by a relative clause. An illustration of such a minimal construction is given with (55) below, in which the relative clause runs from *efnai* 'REL-cause' through *aya=n=ya* '1SG=SEP=3SG.SPC'. In elicitation, the construction could optionally be extended with *iso*, in the position indicated in the sentence.

¹⁵ Note that this NP lacks a final determiner. The precise reason for elision of the final determiner is unclear, but may be due to the length of the utterance, which might as it were make the speaker forget to add the final determiner.

- (58) *Na* *mkóve* “*rorov,*”
 na mk^h-óve orova
 then 2PL-say no
- berarti** *inko* *esasar=inkoi.*
 berarti inko e-sasar=inko-i
 mean 1.PL.EX REL-guilt(y)=1PL.EX-SPC
 'When you then say “no” (“they have not taught us well”), this means that we (elders) are the ones that are guilty.' [PDef]

Another example of agreement in person is given with the following sentence, where =*yai* forms the only example in the corpus of a first singular pronominal article.

- (59) *Aya* *na* *ekaw* *epref* *inyai*
 aya na e-kaw e-pref i=n=ya=i
 1SG then REL-make.clean REL-scrape.off 3SG=SEP=1SG=SPC
 'Let *me* then be the one who cleans it and scrapes it off.' [SKbm]

In the following example, on the other hand, the determiner *ya~i* '3SG.SPC' closing off the final NP does not agree in person with the initial pronoun *aw* '2SG'.

- (60) *Napirem,* *aw* *veyékyá!* (~*veyéki*)¹⁷
 napirm aw vey-ék=ya (vey-ék=i)
 cross-cousin 2SG REL-go.up=3SG.SPC (REL-go.up=3SG.SPC)
 'Friend, you are the one who goes up!' [MWai] ([MWag])

The cleft constructions described here are the default structures used for the formation of direct and indirect questions headed by an interrogative pronoun. An example of an indirect question is given here.

- (61) *Mkokara* *rosa* *kakani.*
 mko-kara [rosai]_{NP} [k^h-ák-an]_{RC=i}_{NP}
 2PL-think what 1PL.INC-also-eat=3SG.SPC
 'You think about what we should eat!' [MBdw]

It is important to distinguish cleft constructions from topicalization constructions, of which examples were given in 8.3. In topicalization constructions, the P1 position preceding the verb is taken by an NP that is not coreferential with the subject, which may but need not correspond to an anaphoric pronoun later in the clause. A good example of an object topicalization is given with *yáf anya* in the following sentence, where the topic is anaphorically referred back to by the pronoun *i* '3SG'.

- (62) *Ro* *diya,* *mansar* *ine,* *marasrisn*
 ro di-ya man-sar i-ne m~aras~risn
 LOC place-there male-old 3SG.SPC-this ~RED~enjoy

¹⁷ The two allomorphs of the specifier (*i* and *ya*) were given in one and the same text, as usual without any observable difference in meaning.

<i>vyedyá</i>		<i>ifrúr</i>	<i>yáfe,</i>	<i>ma</i>	<i>yáf</i>	<i>anya</i>
v<y>e=d-ya		i-frúr	yáf	ma	yáf	an-ya
<3SG>POS=3SG-SPC		3SG-make	garden	and	garden	GIV-3SG.SPC

<i>kyer</i>	<i>i</i>	<i>kukr</i>	<i>ifen,</i>	<i>dyapan (...)</i>
k<y>er	i	kukr	ifn	dyapan
<3SG>plant	3SG	with	<k.o.tuber>	taro

There, this old man, his joy was to make a garden, and this garden he planted with *ifn*-tubers, taro (...) [MMad]

10.4 Intermezzo: (spatial) adverbs and conjunctions

In general, adverbs differ from conjunctions in the following two respects. First, they differ formally, in that a clause containing a conjunction is incomplete on its own, while this is not true for a clause containing an adverb. Thus, the clause *i-mrán mu-ma* '3SG-walk PATH-to.here' is a complete sentence, because the complex adverb *mu-ma* does not require a second clause in order for the utterance to be complete. On the other hand, *voi* 'but' is a conjunction, as a sentence like *i-mrán voi* '3SG-walk but' is incomplete without a clause following. The formal difference between adverbs and conjunctions is paired with a semantic difference. While adverbs serve to modify (elements within) the clause containing them, conjunctions can be thought of as performing the following functions. On the one hand, they conjoin the clause in which they are contained with a following or preceding clause. On the other hand, they express the relation with the following clause. Thus, a conjunction like *kukr* 'because' marks the following clause as providing the cause or reason for the event described in the preceding clause while a conjunction like *vo* 'SIM' expresses simultaneity.

Whereas the principal difference between adverbs and conjunctions is quite clear, an analytical problem arises for those formatives that are attested both as adverbs and as homophonous conjunctions. In the Biak language, the following formatives fall into this category:

- The formatives *ma*, *fa* and *ra* are attested both as spatial adverbs ('to here', 'to there' and 'to over there', respectively) and as conjunctions ('and', 'CONS' and 'until', respectively), where the latter have probably developed from the former.
- The same is true for the complex spatial adverb *mu-ra* 'PATH-to.there', which is homophonous to a conjunction 'afterwards' expressing sequence in time.
- *Va* is used both as a negative adverb 'not' and as a conjunction 'because'.

The main analytical problem arises for the simple spatial adverbs. As will be described in 10.10, clauses can very well be ordered asyndetically. This means that a clause ending in a spatial adverb can be followed by a following clause without any conjunction conjoining the two clauses. Compare (63) and (64), both of which contain two conjoined clauses that are part of one and the same intonational phrase.

- (63) *Iser* *pdef* *benya* *ra* *isápi.*
 i-ser pdef ben=ya ra i-sápi
 3SG-reach pass plate=3SG.SPC to.o.there 3SG-fall
 'He reached the plate missing (her) so that it fell down.' [S_T_005]

- (64) *Denf* *ra* *ikvóke*.
 d-enf ra i-kvók
 3SG-sleep until 3SG-get.up
 'He slept until he got up.' [S_T_138]

Although the two sentences seem formally similar at first sight, it is clear that they are structured differently. First, it is possible to cut off the clause after the formative *ra* in (63), while this is not possible for (64). This makes clear that *ra* in (63) should be considered a spatial adverb, expressing the direction in which the plate was reached out (away from both the one reaching out and the intended recipient). The formative *ra* in (64), on the other hand, should be analyzed as the conjunction *ra* 'until'. The analysis is confirmed by comparing (63) and (64) above to the minimally different sentences (65) and (66), in which the formatives *ra* are replaced with *fa* 'CONS'. While replacement of *ra* 'to.o.there' in (63) with *fa* 'to.there' is perfectly possible, replacement of *ra* 'until' with *fa* 'so.that' (elsewhere glossed as CONS) is semantically odd.

- (65) *Iser* *pdef* *benya* *fa* *isápi*
 i-ser pdef ben=ya fa i-sápi
 3SG-reach pass plate=3SG.SPC to.there 3SG-fall
 'He reached the plate missing (her) so that it fell' [S_T_005]

- (66)?? *Denf* *fa* *ikvóke*
 d-enf fa i-kvók
 3SG-sleep CONS 3SG-get.up
 ?'He slept so that he got up' [el]

According to the consulted language helper, then, there is no semantic difference between (63) and (65) (, which is due to the sometimes subtle differences between the spatial adverb *ra* and the spatial adverb *fa*, cf. 9.4.1). There is, however, a clear difference in meaning between the conjunction *ra* 'until' and *fa* 'CONS'.

Although it is in principle possible to distinguish between adverbs and conjunctions, I have not always done the tests required to distinguish between the two, which in some cases makes the analysis chosen rather arbitrary. Further it should be noted that the adverbs and the conjunctions developed out of them are never used in sequence. Thus, the corpus contains no sequenced of *ma* 'to.here' and *ma* 'and', of *fa* 'to.there' and *fa* 'CONS', and of *ra* 'to.o.there' and *ra* 'until'. Of the other possible combinations, only *ra+ma* is used as a conjunction indicating sequence (which may, however, have developed out of *ra i-mnai* 'until 3SG-stop'), while *fa+ma* is used as a complex conjunction more or less synonymous to *voi* 'but'. Other combinations are not attested.

10.5 Consecutive *fa* and causative constructions

10.5.1 *Fa* as a consecutive marker

The conjunction *fa* basically expresses result, and can often be rendered with the English 'so that'. Throughout this thesis, the conjunction has been glossed with 'CONS' (consecutive). An example of the use of the consecutive conjunction *fa* 'CONS' is given in (67) below.

- (67) *Surapapík* *rao* *mankoko* *nanya* *myunu*
 su-ra~pa~pík rao man-koko an-ya m<y>un=u
 3DU--RED~fight until bird-chicken GIV-3SG.SPC <3SG>kill=U
- ikák* *anya* **fa** *imar.*
 ikák an-ya fa i-mar
 snake GIV-3SG.SPC CONS 3SG-die
 'The two fought until the chicken hit the snake *so that* it died.' [MIci]

As indicated at the outset of this chapter, the discussion of clause combinations is structured according to the degree of integration between the two clauses, and follows a cline running roughly from most integrated to least integrated. Here I present the reasons why I have chosen to discuss *fa*-introduced clauses at this point in the chapter. First, it was shown in 10.2 that several verbs taking clausal complements can also combine with clauses introduced by *fa*, without any observable difference in meaning. Clauses introduced by *fa*, then, are – at least in certain cases – close to complement clauses, which are dependent on the verb in the matrix clause. Section 10.3 discussed relative clauses, which are dependents of a noun phrase. While section 10.4 formed an intermezzo, section 10.6, which follows the current section, discusses frames and frame-final markers, while 10.7 discusses adverbial clauses. The position of this section in the chapter expresses that *fa*-introduced clauses are somehow in between complement clauses on the one hand and the adverbial clauses on the other hand with respect to the degree of integration with the preceding clause.¹⁸ It is outside the scope of this thesis, however, to provide further criteria to decide which (if any) of the *fa*-introduced clauses should be considered complements.

In the example above, the two clauses conjoined by *fa* 'CONS' are part of the same intonational phrase. Although the first clause can stand on its own, the *fa*-introduced clause is still quite closely connected to the first clause in that it expresses the direct result of the verb *m<y>un* '<3SG>hit' in the first clause. Another example of the use of *fa* is given in (68). Here, the clause running from *fa syun* through *skovanine* can be thought of as expressing the *intention* of the seeking. This interpretation, however, is probably better considered a contextual implication of the basic meaning of *fa*, which presents the clause as the *result* of the seeking ('he sought something so that ...').

- (68) *Ikák* *an-i-ne* *na* *syéwaru* *ro* *epyum* *fa,*
 ikák an-i-ne na s<y>éwar=u ro e-pyum fa
 snake GIV-3SG.SPC-this then <3SG>seek=U thing REL-good CONS
- sansun* *epyum,* *fa* *syun* *vo* *ikra*
 sansun e-pyum fa s<y>un vo i-k-ra
 clothes REL-good CONS <3SG>enter SIM 3SG-use-go

¹⁸ The position with respect to the relative clauses, discussed in 10.3, is rather arbitrary, as comparing NP-dependent relative clauses to verb-dependent *fa*-introduced clauses is in a sense like comparing apples and oranges. The same is true for the order between *fa*-introduced clauses section 10.6 discussing frames, as frames precede the clause with which they are combined, while *fa*-introduced clauses and adverbial clauses follow the clause with which they are combined.

yov amber skovanine.
yov amber sko-v=an-i-ne
to amber 3PC-POS=GIV-3SG.SPC-this

'This snake then sought something good, good clothes so that he could wear them and use them to go to their boss (*amber*). [MIaj]

Recall the structure given in Figure 2 at the outset of this chapter, where it is shown that complement clauses are attested not only at the position usually reserved for a nominal object, but also at the position following it. Although it would be outside the scope of this thesis to give exhaustive arguments as for when a clause should be considered a complement or not, it is clear that some of the *fa*-introduced clauses are very much like complements. In quite a number of cases the preceding clause cannot stand on its own, as is the case in the causative constructions described in the following section. In other cases, the sentences are semantically odd or incomplete without the clause following it, as is the case for *ór* 'call' in (69) below.

(69) *Indya yór fa mesrdi*
indya y-ór fa mesr-di
so 1SG-call CONS day-the.following

mkovelapor Wardo babo inkoya nkovefis.
mko-ve-lapor Wardo babo inko=ya nko-ve-fis
2PL-VBLZ-report Wardo new 1PL.EX=SPC 1PL.EX-VBLZ-how.much
 'I request that you will report soon how many we, people of Wardo, are.' [VYnd]

While it is possible to think of the *fa*-introduced clause in (69) as occupying the position usually reserved for the object, this is not possible in (70), where it occupies the position usually reserved for the recipient or adverbials.

(70) *Amber skovedya dór i fa*
amber sko-ve=d-ya d-ór i fa
amber 3PC-POS=3SG-SPC 3SG-call 3SG CONS

ive rya isrow kukr i.
i-ve r<y>a i-srow kukr i
3SG-be.about <3SG>go 3SG-meet with 3SG
 'Their boss asked him to come and meet with him (lit. asked him so that he would come' [MIaf]

Consecutive *fa* 'CONS' can be extended with other formatives into the more complex conjunctions like *fasa* and *fasama* without any observable difference in meaning. Thus, it has not been possible to find a functional difference between the use of *fasa* 'CONS' in (71) and the use of *fa* 'CONS' in (70), neither of which are preceded or followed by a pause.

(71) *Indya mesrdi indo yór fasa mkovelapor i.*
indya mesr-di indo y-ór fasa mko-ve-lapor i
so day-the.following then 1SG-call CONS 2PL-VBLZ-report 3SG
 'So tomorrow I will ask you to report it.' [VYoc]

10.5.2 Causative constructions

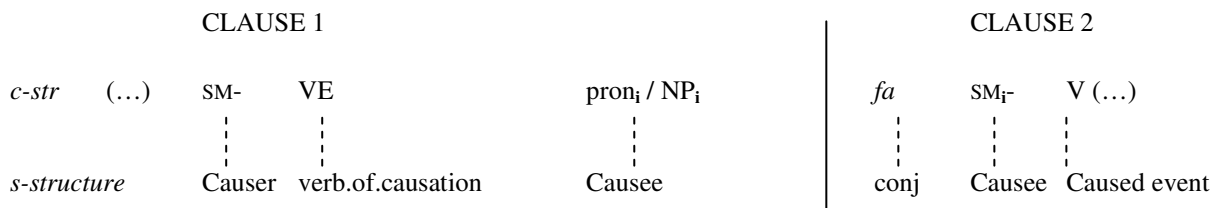
Following Kroeger (2004:192), causative constructions (or: causatives) can be described as "semantically complex events, in which one event causes another. The Actor of the first event is called the *causer*. The event that results from his action is called the *caused event*. The most prominent argument of the caused event, i.e. the argument which would be expressed as the subject of a simple clause describing that event is called the *causee*."

Most causative constructions in Biak are formed by the combination of two clauses linked by the conjunction *fa* 'CONS'. The first clause is headed by the verb expressing causation. The second clause is headed by a verb expressing the caused event. The most common verb used as verb of causation is *ve* 'give'. The verb *ve* 'give' functions as verb of causation exclusively in constructions of the form exemplified by (72).

(72)	<i>Vye</i>	motor	<i>anya</i>	<i>fa</i>	<i>imnai.</i>
	v<y>e	motor	an-ya	fa	i-mnai
	<3SG>give	motor	GIV-3SG.SPC	CONS	3SG-stop
	<CAUSER>VERB OF CAUSATION	-----CAUSEE-----		CONJ	S-CAUSED EVENT
	'He made / let the motor stop.' [YMbm]				

The relation between the core of these causative constructions and the semantics can be presented as follows:

Figure 4 Structure of *ve*-based causative construction



Note that although formally we have to do with two separate clauses, the first clause is incomplete without the *fa*-introduced clause following it.

Another verb used as verb of causation is *f(r)úr* 'make'. Occasionally it is used in a construction parallel to that illustrated for *ve* in (72) above. An example of this use is given in (73) below.

(73)	<i>Makakákya</i>	<i>ifrúr</i>	<i>si</i>	<i>fa</i>	<i>simkák</i>
	m~aka~kák=ya	i-frúr	si	fa	si-mkák
	~RED~fear=3SG.SPC	3SG-make	3PL.ANIM	CONS	3PL.AN-fear
	<i>vo</i>	<i>sibur.</i>			
	vo	si-bur			
	SIM	3PL.AN-leave			
	'Fear made that they got afraid and left.' [TWfv]				

Usually, however, *f(r)úr* 'make' as verb of causation lacks an object-NP or pronoun, but is followed directly by the *fa*-introduced clause, as in (74).¹⁹

- (74) *Dóve:* “*oo bati wafrúr fa yamsór indya*
d-óve oo bati wa-frúr fa ya-msór indya
3SG-say ooh friend 2SG-make CONS 1SG-angry so
- yamewr yór aw ve bati wer ri.*
ya-mewr y-ór aw ve bati wer ri
1SG-refuse 1SG-call 2SG as friend again IRR
- 'He said: "O, friend, you have made me angry, so I do not want to call you my friend any more"' [MIcd]

The semantic difference between causative *ve* and causative *f(r)úr* is as follows. *Ve* implies direct control from the side of the causer, and leaves no room for control from the part of the causee. *F(r)úr*, however, implies possible control from the side of the causee, while the causer need not have any control at all. A good example of the latter is given with (73) above, where it is clear that the causer (*makakák* 'fear') is not in control.

A minimal pair illustrating the contrast between *ve* 'give' and *f(r)úr* 'make' is given with the following two sentences, the first taken from the Manarmaker story, the other tested in elicitation. Sentence (75) cites the words of Manarmaker, who implicitly accuses the inhabitants of the village that they steal his palm wine. They, then, cause him to climb his tree in vain:

- (75) *Mkofúr fa yavr yamór wawork monda (...)*
mko-fúr fa y-avr ya-mór wawork monda
2PL-make CONS 1SG-rise 1SG-tired in.vain just
- 'You make (by stealing my wine) that I climb (the palm tree) and get tired just in vain (...)' [MSII]

Replacement of *fúr* 'make' with *ve* 'give' (with optional *aya*, not influencing the interpretation), as illustrated in (76) below, leads to the interpretation that the people in the village *command* the speaker to climb his tree. The causers (*mko* '2PL'), then, have direct control over the caused event, whereas in the case of *fúr* there is still room for control from the side of the causee.

- (76) *Mkove (aya) fa yavr yamór wawork monda (...)*
mko-ve aya fa y-avr ya-mór wawork monda
2PL-give 1SG CONS 1SG-rise 1SG-tired in.vain just
- 'You let me climb (the palm tree) and get tired just in vain (...)' [el]

Another example of the use of *ve* is given with (77), where it is clear again that the causer has direct control over the event.

¹⁹ It was tested in elicitation whether it is also possible for *ve* 'give'-governed causative constructions to elide the expression of the Causer in the first clause, leading to constructions parallel to (73) above. Although this seems possible in a number of cases, the data are insufficient to draw any reliable conclusions.

- (77) *Vye* *sraibon* *ine* *fa* *kyón*
 v<y>e srai-bon i-ne fa k<y>ón
 <3SG>give coconut-fruit 3SG.SPC-this CONS <3SG>sit
- ro* *waya* *wurndi*
 ro wa=ya wurn-ri
 LOC canoe=3SG.SPC stern-POS.SG
 'He made the coconut lie in the stern of the canoe' [MSkd]

As described by Heine and Kuteva (2002:152), it is not unusual for 'give-related' causative markers (be it a verb, or a member of another lexical or grammatical category) to be used for the expression of permission. This is also true for the Biak verb *ve* 'give', as exemplified in the following sentence, where the speaker claims to cite the researcher's words. According to the speaker, the researcher has told one of his language helpers that Dutch women are not allowed to marry overseas (which, by the way, the researcher had never said):

- (78) *Nkákve* *bín* *nkove=s-ya* *oso* *fa*
 nk-ák-ve bín nko-ve=s-ya oso fa
 1PL.EX-also-give female 1PL.EX-POS-3PL.AN-SPC INDEF.SG CONS
- dákkávor* *sorno* *va.*
 d-ák-kávor sorn=o va
 3SG-also- traverse deep.sea=nonSP.SG not
 'We also do not allow any of our females to traverse the sea.' [VYpa]

To close, it is necessary to mention another *fúr* 'make' - based construction, where the two events are formally and semantically more integrated. The construction, of which the corpus contains only a handful of examples, is illustrated in (79).

- (79) *Mura* *mambivi* *anya* *ifúr*
 mura man-bivi an-ya i-fúr
 afterwards bird-owl GIV-3SG.SPC 3SG-make
- kanandor* *i*
 ka~na~ndor i
 ~RED~be.startled 3SG
 'Then the owl caused him to be startled' [FFbq]

In the construction above, we find the verb *fúr* combining with a pronominal object. The verb and the object are intervened by a reduplicated verb form (in case: *kanandor*) expressing the state the object has come into, due to some action performed by the referent of the subject. It is to be expected that the construction above can be used only to express the causation of certain states, and not of actions, although more research is necessary to confirm this expectation.

Note that the construction is formally similar to some of the verb-(intransitive) verb combinations given in Chapter 4 on verbs, where the particle expresses the effect on the object of the event expressed by the verb, as in the following example:

- (80) *Yamer mkir mankoko pnór ine.*
 ya-mer mkir man-koko pnor i-ne
 1SG-strike.hard have.a.hole bird-chicken egg 3SG.SPC-this
 'I (accidentally) made a hole into this chicken egg.' [el]

In Chapter 5 it was shown that the use of an intransitive verb intervening between the verb and the object, like *mkir* in the example above, implies that the result expressed by this verb is accidental, and not intended. Whether this is also true for the *f(r)úr*-based constructions under discussion here, remains a question for further research.

10.5.3 Some remarks on the expression of the concept 'give'

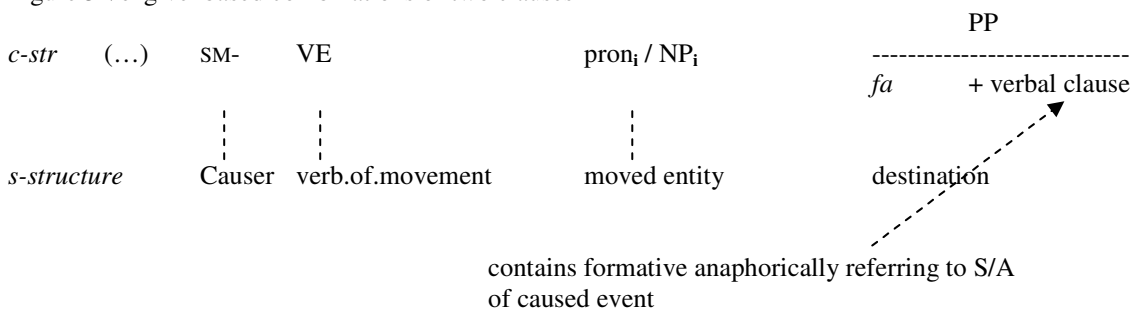
Although the verb *ve* 'give' can perfectly well be used to express the act of giving, the most commonly used verb to express the act of giving is *vuk* 'give', not *ve* 'give'. *Ve* is also attested as a preposition glossed as 'to', heading a PP that expresses the destination an entity is heading for. It is intuitively not difficult to think of a diachronic relation between the preposition *ve* 'to' and the use of *ve* 'give' as a verb of giving or a verb of causation, expressing the movement of an object towards a certain destination.

Both causative and non-causative *ve* 'give' take a direct object, and need a second argument for completeness. The crucial difference between the causative and non-causative use of *ve* 'give' is that non-causative *ve* 'give' does not take as second argument a clause expressing the caused event. Instead, it takes as second argument a prepositional phrase expressing the beneficiary. In most of the attested examples, the beneficiary is introduced by the combination of the adverb *fa* and the preposition *ro*, as in the following example:

- (81) (...) *kove i fa ro kpu kovesya (...)*
 ko-ve i fa ro kpu ko-ve=s-ya
 1PL.INC-give 3SG to.there LOC kin±2 1PL.INC-POS=3PL.AN-SPC
 '(...)we give it (the name of the Lord) to our grandchildren (...)' [YRea]

Note that sentence (81) is very close to a combination of two clauses. In fact, changing *fa ro* 'to.there LOC' into *fa r<y>o* 'to.there <3SG>LOC' would make the expression into a causative construction: 'we make it to be at our children'. In fact, the causative construction given in Figure 4 above, is just one of several *ve* 'give'-based constructions, the general construction of which is given here:

Figure 5 *Ve* 'give'-based combinations of two clauses



The figure here is more general than Figure 4 above in three respects. First, the figure here generalizes over the expression of the destination by a PP or an entire clause. Second, the 'moved entity', which is called the causee in Figure 4, need not correspond to the subject of

the second clause, but can also be anaphorically referred to by non-subject pronouns instead. The following examples serve as illustrations of the figure above. Note that in all cases the clauses are part of one and the same intonational phrase (there is no pause separating the two). Sentence (82) below is another example of the constructions dealt with in the preceding section, where the subject marker of the verb in the complement is coreferential with the NP referring to the moved entity.

- (82) *Na yave roveanna fa napyan*
 na ya-ve rovean=na_k fa na_k-pyan
 then 1SG-give food=3PL.INAN.SPC CONS 3PL.INAN-easy
- ve mko fa mkán ro dine.*
 ve mko fa mk^u-an ro di-ne
 to 2PL CONS 2PL-eat LOC place-here
 'I make the food easy to get for you so that you can eat here.' [MMjy]

In (83), on the other hand, the moved entity is anaphorically referred to by an object pronoun.

- (83) *Vye ij fa yarowr ij voi (...)*
 v<y>e i fa ya-rowr i voi
 <3SG>give 3SG CONS 1SG-hear 3SG but
 'He has let me listen to it (the story), but (...)' [ASbd]

10.6 Frame-final markers and nominalization of clauses

Although the combination of non-final intonation and pausing may suffice to mark a clause as frame for the clause to come, the relation between the frame and the clause is often specified by the use of topic markers or frame-final conjunctions. Some of the most frequent frame-final topic markers and conjunctions are discussed in 10.6.1 through 10.6.3. Another and less frequently used way to present a clause as frame for the following is by embedding it into a noun phrase, by closing off the clause with a pronominal article. This strategy is discussed in 10.6.4.

10.6.1 *ido* 'THEM' and *indo* 'THEM'

The conjunction *ido* 'THEM' has received detailed discussion in 3.8. In that section, examples given were restricted to its use as closing off noun phrases. Another example of the use of *ido* 'THEM' closing off an NP is given with (84):

- (84) *Ine ido, nkovuk i kyero dyapan.*
 i-ne ido nko-vuk i k<y>er=o dyapan
 3SG.SPC-this THEM 1PL.EX-give 3SG <3SG>plant=O taro
 'As for this, we use it to plant taro.' [ATce]

The current section, however, focuses on the use of *ido* in the last position of a clause. As such, it often has a temporal interpretation, as in (85).²⁰

²⁰ It is also possible that the temporal use forms is the basic meaning (*Grundbedeutung*) from where the use as a THEME-marker has been derived. In my gloss, however, I follow Lehmann's rule (Lehmann 2004) to gloss the general meaning (*Gesamtbedeutung*) instead of the basic meaning (*Grundbedeutung*).

- (85) *Indya ive inkoker na ido,*
indya i-ve inko-ker na ido
 so 3SG-want 1PL.EX-plant 3PL.INAN THEM
- nkowapuk na.*
nko-wapuk na
 1PL.EX-cut.through 3PL.INAN
 'So when we want to plant them, we cut them in two.' [ATgv]

Both when closing off an NP and when used in last position of a clause, the marker *ido* 'THEM' can be seen of as closing off the preclausal frame (presented in 8.2 and further discussed in 8.3.2 and 10.1).

Both noun phrases and clauses closed off with *ido* 'THEM' may be introduced by the Indonesian loan word *kalau* 'when', as illustrated in (86) and (87).

- (86) **Kalau** *ransyo ido, bisa kán vepék i.*
kalau ransyo ido bisa k^h-an ve-pék i
 when sweet.potato THEM can 1PL.INC-eat as-raw 3SG
 'As for sweet potatoes, we can eat them raw.' [ATfr]

- (87) **Kalau** *kove koso nyan*
kalau kove ko-so nyan
 when 1PL.INC-want 1PL.INC-accompany road
- era var rakuya ido, na*
e-ra var raku=ya nido na
 REL-go side right=3SG.SPC THEM then
- knik na kódo ro Sorido.*
knik na ko-^hdo ro Sorido
 moment then 1PL.INC-go.down LOC <Sorido>
 'When we want to follow the road along the right, then after a while we go down at Sorido.' [RWdi]

Another example of the use of *ido* is given with (88). The frame has a conditional interpretation, which, however, is probably not due to the lexical properties of *ido*, but rather a contextual implication (Cf. Haiman 1978, 'conditionals are topics'.)

- (88) *Dóve: “ee, bati, wamarisn ido, buk sarak*
d-óve ee bati wa-marisn ido buk sarak
 3SG-say eh friend 2SG-enjoy THEM 2SG.give bracelet
- bedya ma yawur vo yakra ve*
be=d-ya ma ya-wur vo ya-k-ra ve
 2SG.POS=3SG-SPC to.here 1SG-wear SIM 1SG-use-go to

below. The functional difference between NP-final *ido* 'THEM' and NP-final *kada* 'suppose.that' is not yet clear.

- (92) *Eser eser* “*aya kada,* **ahli atom**”,
eser eser *aya kada* *ahli atom*
 one one 1SG suppose.that expert atom
- “*aya kada,* **insinyur**”, “*aya kada sarjana*” (...)
aya kada insinyur *aya kada sarjana*
 1SG suppose.that engineer 1SG suppose.that scholar
 Each one of them (said): "Me, I am an atom expert!", "I am an engineer!",
 "I am a scholar!" ' [YRer]

When closing off a framed clause, *kada* functions as a sort of conditional marker. Both when closing off an NP and when closing off a clause, it is glossed as 'suppose.that'. When attached to a clause, this 'suppose.that', should be understood as 'suppose the preceding proposition to be true', while attached to an NP it should be understood as 'suppose we consider the preceding referent.' Clause-final *kada* is used both when the condition is counterfactual, as in (93), and when it is expected to be true, as in (94). The sentence below is part of an exposition about problems with the division of land. Having set out several problems that arose in the past, the speaker then remarks:

- (93) *Sákfawi* *ra* *fawawi* *ero* *babo*
s-ák-fawi *ra* *f~awa~wi* *e-ro* *babo*
 3PL.AN-also-know along ~RED~know REL-LOC recent.time
- inenna* *kada,*
i-ne=n-na *kada*
 3SG.SPC-this=SEP=3PL.INAN.SPC suppose.that
- na* *naser* *rakrok* *ra* *dine* *va.*
na *na-ser* *rak~rok* *ra* *di-ne* *va*
 then 3PL.INAN-contain RED~resound along place-this not
 'If they had known what is known nowadays, then there would not have been quarrelling like this. (lit. then it would not have contained noise (quarrelling) like this)'
 [ALdc]

While the condition above is counterfactual, in the example below the speaker expects the condition to be true.

- (94) *Wakafen* *karun* *pis* *ro* *diya* *kada*
wa-kafen *karun* *pis=o* *ro* *di-ya* *kada*
 2SG-stick.into bag skin=nonSP.SG LOC place-that suppose.that
- be* *ma* *kovuk* *i* *isaw* *i.*
be *ma* *ko-vuk* *i* *i-saw* *i*
 2SG.give to.here 1PL.INC-give 3SG 3SG-hang 3SG
 'If you have got an empty bag sticking in there, give it so that we can use it to put (the pig) into.' [MBhl]

The corpus contains a number of examples of the seemingly fixed expression *riryá kada*, following a verbal clause and forming the protasis of a conditional sentence. In this construction, the generic marker can be thought of as embedding the preceding verbal clause into an NP. An example is given in (95) below, where the embedding has been indicated in the line that gives the division into morphemes:

- (95) *Indya komám riryá kada, fadu*
 indya [ko-mám ri]_{NP-} i-rya kada fadu
 so 1PL.INC-see GEN.SG-3SG.PRED-ANAPH suppose.that period
- iwara sinansya sikenm pyum (...)*
 i-wa-ra sinan=s-ya si-kenm pyum
 3SG.SPC-o.there-to.o.there ancestor=3PL.AN-SPC 3PL.AN-life good
 'If we would look (backwards), in former times our ancestors lived well (...)' [ALae]

Whereas the distribution of *kada* 'suppose.that' generally coincides with that of *ido* 'THEM', it differs in that *kada* 'suppose.that' can be used in sentence-final position, whereas for *ido* this is highly exceptional.²² In such cases, *kada* 'suppose.that' is used to express a counterfactual wish: 'suppose that it had been like that, then ... (it would have worked out well.)' An example of this use is given with the following sentence.

- (96) *Ima imar kayuyo irya kada!*
 i-ma imar kayu=yo i-rya kada
 3SG-TOP file wood=nonSP.SG 3SG.PRED-ANAPH suppose.that
 'Suppose that it had been a wood file ...! (in other words: then it would have been okay' [YWft]

10.6.3 *Voi* 'but' and *vo* 'SIM'

With *voi* 'but' we meet a formative that is best considered as a conjunction that is typically but not exclusively used in frame-final position. It seems to express that the following clause is somehow opposed to the expectation of the addressee as presumed by the speaker.²³ In most cases, the meaning of *voi* can be covered by the gloss 'but'.

- (97) *Sansun vyena naisya voi,*
 sansun v<y>e=na na-is-ya voi
 clothes <3SG>POS=3PL.INAN.SPC 3PL.INAN-PRED-that but
- dáknayu sarako va.*²⁴
 d-ák-na-yu sarak=o va
 3SG-also-have-YU bracelet=nonSP.SG not
 'His clothes were there, but he did not (also) have a bracelet.' [MIam]

²² The only attested example of *ido* in 'sentence-final position' is in the expression *i-rya ido* 'given this', which can be followed either by sentence-final or by level intonation, cf. footnote 3 to SKal in the appendix (short story).

²³ Note that the marker *voi* 'but' can probably be analyzed as a sequence of the conjunction *vo* 'SIM' and a focus marker *i*. The latter marker is also used in cleft constructions (10.3.5).

²⁴ As indicated at the discussion of the negative adverb *va* 'not' in 3.7.5, the use of *vo* in frame-final position seems to block the scope of final negation.

In the example above, the function of *voi* could be analyzed as opposing the two clauses. A clause like (98) below, however, makes clear that it is not only used to oppose two constituents, but more to mark that the following is opposed to the expectations that are created by the given context. In this example the frame repeats the last part of the preceding sentence, thus following a tail-head linkage pattern. On the basis of this frame, one would expect the two to stay and live together in peace. The use of *voi* 'but', however, marks that something unexpected is going to happen.

- (98) *Sivye* *kayám* *voi,* *rasya* *ido,*
 si-vye kayám voi ras=ya ido
 3PL.AN-live together but day=3SG.SPC THEM
- ikák* *anine* *nya* *syapya*
 ikák an-i-ne n<y>a syap=ya
 snake GIV-3SG.SPC-this <3SG>have letter=3SG.SPC
- ro* *amber* *veba* *skovedi.*
 ro amber ve-ba sko-ve=d-i
 LOC *amber* REL-big 3PC-POS=3SG-SPC
 'They lived together, but, at a certain day, this snake got a letter from their big boss.'
 [MIac]

Whereas *vo* 'SIM' is closely related to *voi* in that it can be used in all contexts where *voi* is used, its meaning is broader, in that it is also used in contexts where no opposition is implied. Its main function is to express simultaneity between the frame and the following clause.

- (99) *Kyain* *vo,* *wammurm* *anya* *iwúf* *pararei.*
 k<y>ain vo wam-murm an-ya i-wúf p~ara~rei
 <3SG>sit SIM wind-east GIV-3SG.SPC 3SG-blow ~RED~healthy
 'While he was sitting, the wind blew finely.' [CPaf]

Especially in combination with the negative marker *va* 'not', the two formatives seem to be in free variation, without any observable difference in meaning, as illustrated in (100).

- (100) *Syun* *ro* *ono* *va* *vo(i)*
 s<y>un ro ono va vo
 <3SG>enter LOC INDEF.PL not SIM
- myós* *rya* *syun* *roya* *iri.*
 myós r<y>a s<y>un ro=ya i-ri
 island <3SG>go <3SG>enter LOC=3SG.SPC 3SG.PRED-ANAPH
 'He did not enter any other (island), but the island he entered was this (i.e. the afore mentioned).' [MSkk]

There is a clear distributional difference between *vo* and *voi*, however, in that *vo* is frequently used to link two clauses without any pause preceding or following, whereas this is very rare for *voi*, a point we will come back to in section 10.8.1.

Whereas the conjunctions *vo* and *voi* are similar to the topic marker *ido* 'THEM' in that they are also used in frame-final position, there is an important difference. *Vo* and *voi* are primarily

conjoiners of clauses. As such, they close off clausal frames, and are only occasionally used to close off phrasal frames.²⁵ *Ido* 'THEM', however, is used to mark the topicality of both phrases and clauses, as was shown in 3.8 and 10.6.1 above.

Two other conjunctions used for the expression of contrast are *vápe~impbápe* and *(in)fama*, which seem to have the same distribution as *voi* 'but'. The functional difference between the three conjunctions is not clear.

10.6.4 Nominalized clauses in the frame

Examples of nominalized verbal clauses were given in 5.5. One of the examples is repeated here as (101), containing the nominalized clause *sura ma ro dinenya* 'as for the coming of the two here'.

- (101)
- | | | | | | |
|-----------------|--------------------------------------------------------|-----------------|--------------|------------|-------------------|
| [[<i>Amber</i> | <i>ansuine</i> | <i>sura</i> | <i>ma</i> | | |
| amber | an-su-i-ne | su-ra | ma | | |
| foreigner | GIV-3DU-SPC-this | 3DU-go | to.here | | |
| <i>ro</i> | <i>dine</i>] _{VC} <i>nya</i>] _{NP} | <i>suséwaru</i> | | | |
| ro | di-ne=n=ya | su-séwar=u | | | |
| LOC | place-this=SEP=3SG.SPC | 3DU-seek=U | | | |
| <i>wós</i> | <i>kovanya,</i> | <i>wós</i> | <i>Vyak,</i> | <i>wós</i> | <i>kraf kaku.</i> |
| <i>wós</i> | ko-v=an-ya | <i>wós</i> | vyak | <i>wós</i> | kraf kaku |
| word | 1PL.INC-POS=GIV-3SG.SPC | word | Biak | word | pure real |
- 'As for the coming here of these two foreigners, the two seek our language, the language Biak, the real pure language.' [ASaa]

Another example is given with *inkora ma nine* 'as for our coming here' in (102):

- (102)
- | | | | | | | |
|----------------|---------------|------------|-------------------|----------------|---------------|------------------|
| <i>Imbarya</i> | <i>inkora</i> | <i>ma</i> | <i>nine</i> | + | secara | |
| imbarya | inko-ra | ma | =n=i-ne | + | secara | |
| therefore | 1PL.EX-go | to.here | =SEP=3SG.SPC-this | + | in.the.way | |
| resmi, | <i>ya,</i> | <i>wós</i> | <i>amberya</i> | <i>dóve,</i> | <i>kokofn</i> | |
| resmi | ya | <i>wós</i> | amber=ya | d-óve | ko-kofn | |
| official | yes | word | foreign=3SG.SPC | 3SG-say | 1PL.INC-say | |
| <i>vadiru</i> | <i>monda</i> | <i>ve</i> | <i>mu</i> | sebagai | <i>sinan</i> | <i>ena (...)</i> |
| vadir=u | monda | ve | mu | sebagai | sinan | e-na |
| announce=U | only | to | 2DU | as | parent | REL-have |
- 'As for our coming here, officially, yes, that is what they say in the foreign language (i.e. Indonesian), we make known to you two as the parents that have (...the bride)' [BVbh]

A final example is given with *kovehadir ro rov inenya* 'as for our presence this evening' in (103). It should be noted that all of the examples (101) through (103) can be analyzed as headless relative clauses, with a separator *n* separating the relative clause from the NP-final determiner.

²⁵ One of the few examples is found in (3).

- (105) *Dóve idwarku mkamor vyesuya*
 d-óve i-dwark=u mkamor v<y>e=su-ya
 3SG-say 3SG-block=U eye <3SG>POS=3DU-SPC
- kukru imkák kapai nanine.*
 kukr=u i-mkák kapai an-i-ne
 because=U 3SG-fear rat GIV-3SG.SPC-this
 'He wanted to block his eyes for he was afraid of this rat.' [FYbq]

While *kukr* 'because' is frequently used in postverbal position, it is also used to conjoin sentences. In that case, it is used sentence-initially, as in (106):

- (106) *Ro Sabar Myokre koso mobil#*
 ro Sabar Myokre ko-so mobil
 LOC Sabar Myokre 1PL.INC-follow car
- Kukro nyanya dákrayo kota + (...)*
 kukr=o nyan=ya d-ák-ro=yo kota
 because=O road=3SG.SPC 3SG-also-LOC=O town
 '(Coming from the sea) in Sabar Myokre we take a car. For there is also a road coming from the town ...' [RScr]

In a number of cases, the clause introduced by *kukr* is closed off by a marker *ri*, as in *kukr=o i-makr ri* 'because=O 3SG-itchy RI' -> '(he scratched) because he was itchy.' (SKbv). The function of this *ri* is not entirely clear, neither is it clear whether it should be equated with the irrealis marker *ri* described in 10.2.5 or with the anaphoric marker described in 8.5.5.4. In elicitation, the use or non-use of *ri* did not lead to observable differences in meaning. It should be noted that in all of the attested cases *ri* closes off a clause that refers to an existent state of affairs, which suggests that *ri* should be analyzed as the anaphoric marker referring back to this state of affairs. A more precise characterization of *ri*, however, awaits further investigation.

Another conjunction used for the expression of cause is *va* 'because'. Interestingly, in all but one of the examples in the corpus the conjunction *va* 'because' follows an imperative or an adhortative, as in the following two examples.

- (107) *Wáwós awer va vín disaw (...)*
 w-áwós awer va vín ri-is-aw
 2SG-talk PROHIB because female GEN.SG-3SG.PRED-2SG
 'Do not talk, for you are a woman (...)' [VYmf]
- (108) *Mkówós fasaw va, knik pyampan ido, (...)*
 mko-^hwós fasaw va knik p<y>ampan ido
 2PL-talk fast because moment <3SG>dark THEM
 'Let's talk fast, for when it is dark in a moment, (...)' [MBfl]

It should be recalled that the language also contains a negative adverb *va* 'not', which like the conjunction is used in clause-final position. As the language uses prohibitive *awer* 'PROHIB' instead of *va* 'not' for the negation of imperatives and adhortatives, there can be no confusion about the function of *va*; the imperative context makes clear that *va* should be understood as a

conjunction of reason instead of a negative adverb. Although it is perfectly possible that *va* has developed out of the negative adverb *va* 'not', one can only speculate about the path that has led to this shift in meaning.

Another conjunction used for the expression of cause or reason is *snar* 'because (of)', which has the same distribution as *kukr* 'because'. An example of its use can be found in (113) below.

10.8 Other syndetic clause combinations

The clause combinations described in this section differ from those described in previous sections in several respects. First, whereas *vo* 'SIM' and *voi* 'but' were also discussed in 10.6, this section focuses on their use in other than frame-final position. Second, the conjunctions discussed here differ from the adverbial conjunctions discussed in 10.7, in that the adverbial clauses might be said to have a greater semantic dependence on the preceding clause than the clauses described in the present section. The reason for a separate discussion of *fa*-introduced clauses has been set out at the outset of 10.5 and 10.7.

10.8.1 *Vo* 'SIM'

While the use of *vo* in frame-final position, preceding an intonational pause, was described in 10.6.3, this section focuses on those cases in which *vo* 'SIM' links clauses that are part of one and the same intonational phrase. For the sake of completeness it needs to be remarked, however, that *vo* is also used to conjoin sentences, where it is used in sentence-initial position, as in (109).

(109) *Insar* *anya* *iryár* *va* *voi* *iser* *ankyóne*.
 insar an-ya i-ryár va voi i-ser ankyón
 old.woman GIV-3SG.SPC 3SG-strong not but 3SG-hold stick

Vo *vyos* ***sayur*** *ive* *vyov* *ansya*.
Vo *vyos* *sayur* *ive* v<y>ov an-s-ya
 SIM <3SG>bind vegetable 3SG-be.about <3SG>sell GIV-3PL.AN-SPC
 'The woman was not strong but held a stick. **And** she had bound together the vegetables that she was about to sell.' [YMbe]

The conjunction *vo* 'SIM' is attested most frequently, however, as linker of two clauses within the same intonational phrase. A typical example is the use of *vo* followed by inflected *óve* 'say' to introduce direct speech, as in (110)

(110) *Indya* *makmesr* *ikofn* *vo(*i)* *dóve:*
 indya mak-mesr i-kofn vo d-óve
 so star-day 3SG-speak SIM 3SG-say

"*wave* *wakenm* *fyóro* *fyóro?"*
 wa-ve wa-kenm fyór=o fyór=o
 2SG-want 2SG-live piece=nonSP.SG piece=nonSP.SG
 'So the morning star spoke and said: "do you want to live for ever?" ' [RA dg]

Some other examples of the use of *vo* 'SIM' are given in the following sentence. Note that in all cases the clauses linked by *vo* take place at the same time, as is reflected in the gloss 'SIM'

(simultaneous). In this respect the meaning differs from that of *ma* 'and', which is discussed in the following section.

- (111) *Voi* *ikák* *anya* *rya* *mura*
 vo ikák an-ya r<y>a mu-ra
 and snake GIV-3SG.SPC <3SG>go PATH-to.there

vo *dánkinm* *vo* *dóve:*
 vo d-ánkinm vo d-óve
 SIM 3SG-let.know SIM 3SG-say

“*na* *yara* *vo* *yayar* *ido,* *wóre,*
 na ya-ra vo ya-yar ido w-ór
 then 1SG-go SIM 1SG-late THEM 2SG-call

wór *va* *na* *yarower.*”
 w-ór va na ya-rowr
 2SG-call because then 1SG-hear

'But the snake had gone away **and** spoken **and** said: "when I have gone **and** am late, call, call, for then I listen".' [Mib]

10.8.2 *Ma* 'and'

The formative *ma* is best considered a conjunction that links constituents of equal syntactic status. As such it can, for example, link two pronouns as in (112), two noun phrases as in (113), or two relative clauses, as in (114).

- (112) *Aw* *ma* *aya* *kufadwer* *Kaisubu* *Abrams.*
 aw ma aya ku-fadwer Kaisubu Abrams
 2SG and 1SG 1DU.INC-change Kaisubu Abrams
 'You and me let's take the place of Kaisubu and Abrams.' [YRev]

- (113) *Masen* *vero* *amenya* *ma* *sraibon* *anya*
 masn ve-ro amn=ya ma srai-bon an-ya
 salt.water REL-LOC bamboo=3SG.SPC and coconut-fruit GIV-3SG.SPC

surok *snar* *ifrar* *ido* *suyásas.*
 su-rok snar i-frar ido suy-ásas
 3DU-make.noise because 3SG-run THEM 3DU-shake

'The salt water in the bamboo and the coconut made noise because when he ran they shook.' [OHag]

- (114) *Nanki* *mov* *vesren* *ma* *venapes, (...)*
 nanki mov ve-sren ma ve-naps
 heaven place REL-clear and REL-righteous
 'Heaven, a pure and righteous place, (...)' [GDaa]

For the present discussion, it is important that the coordinator can also be used to conjoin clauses. The two clauses are usually part of the same intonational phrase. While *vo* 'SIM' is

used to express simultaneity, *ma* 'and' tends to be used for events that take place in sequence. Two examples of the use of *ma* as coordinator of sentences are given with (115) and (116):

- (115) *Yáwós ma yamnai ro dine (...)*
 y-áwós ma ya-mnai ro di-ne
 1SG-talk and 1SG-stop LOC place-here
 'I talk and stop here (...)' [DAdw]

- (116) *Mboi Mansren kerno namnis ve rawdowr*
 imboi Manseren ker=no na-mnis ve raw~rowr
 but Lord part=nonSP.PL PL.INAN-be.like to hearing
- vesren Bedyá ido, páw na*
 ve-sren be=d-ya ido páw na
 REL-clear 2SG.POS=3SG-SPC THEM 2SG.pull 3PL.INAN
- ma kwer na roro inkosnesna.*
 ma k<w>er na ro inko-sne-sna
 and <2SG>plant 3PL.INAN LOC 1PL.EX-belly- nonSG.AN-PL.INAN
 'But Lord when (certain) things fit your pure hearing (i.e. 'are in accordance with what you like to hear'), pull them and plant them in our hearts.' [GDar]

The coordinator *ma* should be distinguished from the topic marker *ma* 'TOP'. As described in 3.8, this topic marker is used particularly to mark frame-initial NP's as sentence-topical. Pragmatically, the topic marker differs in that it marks the referent of its phrase as topical for the clause to follow and often implies a contrast with other referents, whereas the coordinator *ma* just links two constituents of equal pragmatic status. As described in 10.4 above, the coordinator *ma* should also be distinguished from the adverb *ma* 'to.here', although in some cases it is difficult to make out which of the two is intended. Thus, in the following example, *ma* can be analyzed both as an adverb and as a conjunction

- (117) *Foro isya be ma yakpám ari.*
 for=0 is-ya be ma ya-k-pám ari
 fire=nonSP.SG 3SG.PRED-that 2SG.give to.here/and 1SG-use-light first
 'If there is fire, give it so that I can use it to light (a cigarette).' [GBel]

10.8.3 *Ra* 'until' and *rao* 'until'

Just like *vo* 'SIM' and *ma* 'and', the conjunction *ra* 'until' is usually neither preceded nor followed by a pause. In most cases, its meaning can be covered by the English gloss 'until', as in the following two examples. Sentence (118) is part of a description of the process of cutting sago, while (119) is the description of a photograph that shows a scene from a film that had been watched by the addressee a few minutes before.

- (118) *Kokar si ra sivo ido, kobur.*
 ko-kar si ra si-vro ido ko-bur
 1PL.INC-cut 3PL.ANIM until 3PL.AN-finished THEM 1PL.INC-leave
 'We cut it (the sago pulp) until when it is finished, then we go.' [SSar]

- (119) *Eyenf* *ra* *insape* *ekvók* *anya* *iri.*
 ey-enf ra insape e-kvók an-ya i-ri
 REL-sleep until then REL-get.up GIV-3SG.SPC 3SG.PRED-ANAPH
 'It is the one who slept until he got up.' [S_T_138]

The conjunction *ra* is related to the conjunction *rao* 'until', which is probably a conventionalized combination of *ra* 'until' and the marker of nonspecificity *o* as indicating the unboundedness of an event (cf. section 5.5). The two formatives cannot be equated, however. While *ra* is typically used to join clauses that are part of one and the same intonational phrase, *rao* is used more frequently in prepausal position. As such, it may be accompanied by lengthening of the final *o* and a typical rising intonation, as in the following example

- (120) *Isun* *isun* *isun* ***rao:***
 i-sun i-sun i-sun rao
 3SG-enter 3SG-enter 3SG-enter until
- fyóro* *va* *ruv* *anya* *iba.*
 fyór=o va ruv an-ya i-ba
 piece=nonSP.SG not flood GIV-3SG.SPC 3SG-big
 'The flood came and came and came, until after a while the flood was big.' [CPav]

In clause-final position, this lengthened *rao:* may function as an intensifying adverb. Thus, in the following example, it is possible to elide the clause *rík nabóre* 'the blood was much', without rendering the first clause incomplete.

- (121) *Rofan* *anya* *irík* *rao:* + *rík* *nábóre#*
 rofan an-ya i-rík rao rík ná-bór
 dog GIV-3SG.SPC 3SG-bleed until blood 3PL.INAN-much
 'The dog bled on and on, (until) the blood was much.' [HKan]

In the following example, *rao* is used to conjoin two clauses that are part of the same intonational phrase.

- (122) *Mura,* *mankapinarar* *imríf*
 mura mankapinarar i-mríf
 PATH-to.o.there <k.o.fish> 3SG-laugh
- rao* *mkamorsya* *skain* *ro* *awukóre.*
 rao mkamor=s-ya s-kain ro awukór
 until eye=3PL.AN-SPC 3PL.AN-sit LOC backhead
 'Then, the *makapinarar*-fish laughed until its eyes were at its backhead.' [MWbd]

Both *ra* 'until' and *rao* 'until' may be combined with the grammaticalized phrase *isof(ro)* 'until', which can be followed by either a clause or an NP. In fact, the concept 'until' can be expressed by either a single *ra/rao*, or a single *isof(ro)*, or by a sequence of both. Although it is clear that the grammaticalized *isof(ro)* 'until' contains the locative *ro*, the origin of the first part of *isof* is not entirely clear.²⁶ Two further examples of the use of *isofro* are given in (123) and (124).

²⁶ One possibility is that it stems from *is-o fa ro* '3SG.PRED-o to.there LOC'.

- (123) **Vyeurus** *pyum* *bakn* *vyedine* *va*
 v<y>e-urus *pyum* *bakn* v<y>e=d-i-ne *va*
 <3SG>VBLZ-arrange good body <3SG>vblz=3SG-SPC-this not

rao *isofro* *dármaker.*
rao *isofro* *d-ármakr*
 until until 3SG-scabies

'He did not take care of his body very well, until he got scabies.' [MMcb]

- (124) **Dan** *snonsnon* *anine* *kovefarander* *va*
 dan *snonsnon* an-i-ne ko-ve-farander *va*
 and name GIV-3SG.SPC-this 1PL.INC-VBLZ-forget not

isofroro *Yesus* *ifyafr* *kukr* *koreri.*
isofro *Yesus* i-fyafr *kukr* *koreri*
 until *Jesus* 3SG-land with salvation

'And this name we won't forget until Jesus comes down with salvation.' [YRea]

10.8.4 Indya 'so'

A final conjunction that needs to be mentioned is *indya* 'so'. It differs from *vo* 'SIM', *ma* 'and' and *ra* 'until' in that it is used predominantly in postpausal position, whereas the other conjunctions are used more frequently to conjoin clauses within one and the same intonational phrase. The conjunction *indya* 'so' presents the following clause as logically following from the preceding context.

- (125) *Voi* *mankroder* *anya* *imarisn* *fa* *denf*
 voi man-kroder an-ya i-marisn fa d-enf
 but bird-frog GIV-3SG.SPC 3SG-happy COND 3SG-sleep

ro **botol** *anya* *dori* *va.* **Indya** *isáre.*
 ro *botol* an-ya do-ri *va* *indya* i-sár
 LOC bottle GIV-3SG.SPC inside-POS.SG not so 3SG-go.out

'But the frog did not like to sleep in the bottle. **So** he went out' [FAad]

- (126) *Isasyar* *ro* **botol** *anya* *voi,* *rofan* *anya*
 i-sasyar ro *botol* an-ya voi rofan an-ya
 3SG-go.out LOC bottle GIV-3SG.SPC but dog GIV-3SG.SPC

romámkun *anya* *suyenef.* *Suyenf* *ra* *sukvók*
 romá-mkun an-ya suy-enf suy-enf ra su-kvók
 child-little GIV-3SG.SPC 3DU-sleep 3DU-sleep until 3DU-get.up

fa *sufawi* *mankroder* *anya* *va.* **Indya** *suséwar.*
 fa su-fawi man-kroder an-ya va *indya* su-séwar
 CONS 3DU-know bird-frog GIV-3SG.SPC not so 3DU-seek

'He went out of the bottle, but the child and the dog were sleeping. They slept until they got up and did not know where the frog was. **So** they sought.' [FAae]

It is also used to explain or summarize the preceding, as in the following example, which is a typical way to finish a story:

- (127) *Indya* *fafyár* *anine* *mov* *rya* *mponu*
 indya *fafyár* *an-i-ne* *mov* *r<y>a* *m-pon=u*
 so story GIV-3SG.SPC-this place <3SG>go to.here-front=U
- isofroya* *iri.* *Kasumasa.*
 isofro=ya *i-ri* *kasumasa*
 until=3SG.SPC 3SG.PRED-ANAPH thanks
 'So this story the place until where it proceeds is this. Thanks!' [FYef]

An interesting question for future research would be to find out the historical origin of *indya*. One possibility is that it is the 3SG form *r<y>a* 'go' prefixed with *in* (cf. the following section). Another interesting option would be to link its origin to *=n=ya* '=SEP=3SG.SPC' that is used to close off a nominalized clause, described in 10.6.4.²⁷

10.9 Overview of conjunctions (and related formatives)

The following table gives an overview of most of the attested conjunctions, and indicates in which position they are attested.

²⁷ In this respect it is interesting to note the use of the combination *(n-)ya is-o* '(SEP=)3SG.SPC 3SG.SPC-O, in postpausal position or in positions neither preceded nor followed by a clause. An example of the former position is given with the first sentence below, while an example of the latter is given with *Íwe* through *irmomen* in the second example. Although synchronically the expression *nyaiso* should probably be glossed as 'so', it is clear that it is formed from a former 3SG.SPC pronominal article followed by the predicator *iso*.

Sorn *i-vun-wa* *d-ék-ya* *iso* *vye-vak* *ve-ba*
 deep.sea 3SG-middle-over.there 3SG-go.up-3SG.SPC 3SG.PRED-O <3SG>vblz-wave REL-big
 (As for) the deep sea in the middle over there (that) went up, it had big waves ...

I-^uwe *ra* *nu-pok* *i* *va* *ro* *taksi=ya* *do*
 3SG-scream until 1DU.EX-able 3SG not LOC taxi=3SG.SPC inside

N=ya *iso* *amber* *an-ya* *i-rmomen.*
 SEP=3SG 3SG.SPC foreigner GIV-SPC 3SG-ferocious

'It screamed until we could not bear it any more in the taxi. So the *amber* (i.e. the taxi driver) got angry.'

Table 1 Overview of conjunctions and their position within a sentence

Form	meaning	Position			Remark
		pre-pause	post-pause	no pause	
MA	and	X	✓	✓	<i>Ma</i> in prepausal position is motion adverb (9.4.2) or topic marker (3.8)
(in)FA	CONS	✓	(✓)	✓	In postpausal position: relatively rare (compared to other positions)
<i>(in)(fa)+ sama(+ ido)</i>	CONS	AWAITS			<i>nde</i> is probably derived from <i>indo</i>
<i>(fa) + (in) sama(+ ido)</i>	CONS	FURTHER			
<i>(in)samande</i>	CONS				
<i>(fa)samande</i>	CONS				
<i>(in)fama</i>	but				
RA	until	X	(✓)	✓	In postpausal position: rare (compared to other positions)
<i>rao</i>	until	✓	(✓)	✓	In postpausal position: rare (compared to other positions)
<i>ra + (i)mnai 'stop' (+ ido)</i>	then	AWAITS			(lit. when it stops')
<i>mura (+ido)</i>	afterwards	FURTHER			
<i>rama</i>	then	INVESTIGATION			
IDO	THEME	✓	(✓)	✓	The use of <i>ido</i> in postpausal position is very rare.
<i>indo</i>	THEME	✓	✓	✓	
KADA	suppose that	✓	X	X	
VOI	but	✓	✓	X	
<i>imboi</i>	but	✓	✓	X	
VAPE	but	✓	✓	X	
VO	SIM	✓	✓	✓	
<i>(in)kurvo(i)</i>	nevertheless	AWAITS FURTHER			
<i>vesya vo(i)</i>	nevertheless	INVESTIGATION			
<i>(imbo)</i>	(indeed)	✓	✓	✓	(is not a conjunction, but an interjection, cf.3.12)
(in)KUKR	because	(✓)	✓	✓	related to PREP 'kukr'. In prepausal position rare, and always: <i>kukr=u</i> 'because=U'
VA, imba	because	✓	✓	✓	
<i>snar</i>	because (of)	AWAITS FURTHER			
INDYA (in+rya)	so	✓	✓	(✓)	
<i>rya</i>	so	✓	✓	✓	
INSAPE	then	✓	✓	(✓)	is also attested as adverb 'recently'. Often preceded by other conjunction (<i>vo, fa, ma</i>)

As can be seen in the table above, many conjunctions can be prefixed with *in*, often realized as [n]. Till now, no convincing distributional differences have been found between the prefixed and non-prefixed variants, except for *ido* and *indo*, as discussed in 10.6.1.²⁸ The table also shows that several conjunctions may combine with other formatives to form complex conjunctions, which often have a phrasal origin.

It should be noted that the functional characterizations are no more than a preliminary attempt to grasp some of the functions of these conjunctions. A more thorough characterization would

²⁸ As for the analysis of *in*, it is tempting to analyze this form as the sequence of a 3SG pronoun *i* that refers back to the preceding, and a 'separator' *n* that is possibly comparable to the separator that is found in relative clauses.

have to consider the macro-discourse-structural function of these conjunctions, to find out how the different conjunctions function to structure the flow of discourse.

10.10 Asyndetic coordination

10.10.1 Independent serialization of verbs and locative-existentials

As stated in 4.3.2, independent serialization can be defined as the sequence of two or more fully inflected verbs that are part of one and the same intonational phrase, have coreferential subjects and - if present - one and the same object. The description here also includes those constructions in which it is not an inflected verb but a locative existential that is followed by a verb, as in the following example.

- (128) *Myám ma romámkun anya isya denef.*
 m<y>ám ma romá-mkun an-ya is-ya d-enf
 <3SG>see and child-little GIV-3SG.SPC 3SG.PRED-that 3SG-sleep
 'He saw and there was the child sleeping.' [HKav]

The constructions described here differ from the complement clauses described in the preceding section, in that the second verb cannot be considered (part of) a complement of the first verb. Independent serialization is relatively rare in Biak, in that my corpus of a few thousands of sentences does not contain more than a few tens of independent serial verb constructions. Sequences of locative-existentials and verbs, on the other hand, are a little more frequent. The most common independent serial verb constructions are those in which the first verb is a verb of position or motion, as in (129) below, given as description of a film scene:

- (129) *Vyark denef.*
 v<y>ark d-enf
 lie-3SG 3SG-sleep
 'He lies sleeping.' [S_T_123]

Usually, the different verbs refer to two strongly interwoven events that take place at the same time or in direct sequence. Some other examples of serial verb constructions are given in (130) through (132). Example (130) describes the cassowary's running and zigzagging through the crowd.

- (130) *Kurvoi ifrar isarawrew kukru romámkun anine*
 kurvoi i-frar i-s~araw~rew kukr=u romámkun an-i-ne
 but 3SG-run 3SG-~RED~turn with=U boy-little GIV-3SG.SPC-this

ro swáf sena (...)
 ro swáf se=na
 LOC distance 3PL.AN.POS=3PL.INAN.SPC

'But it (the cassowary) ran zigzagging with the child (on its back) in between them (lit. in their distance, i.e. the distance between them) (...)' [MSdo]

In the following example, the two events of *pyar* 'be at anchor' and *bur* describe two events in direct sequence.

- (131) *Mesrdi* *wer* *ido* *ído*
 mesr=ri wer ido i-^hdo
 day=ANAPH again THEM 3SG-go.down

fa *ipyar* *ibur* *wer.*
 fa i-pyar i-bur wer
 CONS 3SG-float 3SG-leave again

'The following day, he went down to (float and) leave again.' [MSiz]

In (132), finally, the two events of *kar* 'breaking backwards' and *pyas* 'fall forwards' together describe how a whale, having eaten hot stones, repeatedly splashes back and forth before it dies.

- (132) (...) *ro* *vebayu* *ikar* *ipyas*
 ro ve-ba=u i-kar i-pyas
 thing REL-big=U 3SG-break 3SG-fall.with.face.down

ro *wárya* *do* *ine.*
 ro wár=ya do i-ne
 LOC water=3SG.SPC inside 3SG.SPC-this

'(...) the big thing splashed back and forth in this river.' [TWen]

While (129) through (132) are all examples of serial verb constructions, the rest of this section discusses a number of serial locative-existential-verb constructions. The sequence of a locative-existential and a verb is used to express in the same breath both the existence of an entity in a certain place and to predicate some other event over this entity. In (133), the locative-existential *isya* '3SG.PRED' refers to the existence of an entity, while the verb *n<y>ir* 'call' following it serves as head of a predicate expressing that this entity is called Leonardus Yembise.

- (133) **Kirakira,** *oser* *isya* *nyir* *ve* *Leonardus* *Yembise.*
 kirakira oser is-ya n<y>ir ve Leonardus Yembise
 approximately one 3SG.PRED-that <3SG>call as Leonardus Yembise
 'There also seems to be one person that is called Leonardus Yembise.'
 [BMaw]

In (134), the locative existential *s-is-ne* '3PL.AN-PRED-this' refers to people that have just arrived in the village. The use of *ne* 'this' expresses that they are present in a location close to the speaker. The verb *si-wáf* '3PL.AN-wait' directly following the verb expresses in one breath that this first group of people is waiting for the last group to come.

- (134) *Indya* *marandán* *ine,* *epon* *sine*
 indya m~aran~rán i-ne e-pon s-i-ne
 so ~RED~walk 3SG.SPC-this REL-first 3PL.AN-SPC-this

sisne *siwáfu* *epursya* *wer.*
 s-is-ne si-wáf=u e-pur=s-ya wer
 3PL.AN-PRED-this 3PL.AN-wait=U REL-back-3PL.AN-SPC again

'So this journey, the first here, they are here and wait for the ones coming last.' [AAah]

In the passage above, the clauses linked mostly have coreferential subjects, and are separated by a pause. Other cases of asyndetic joining have been given in section 10.2 on clausal complements, while some final examples will be given at the discussion of instrumental constructions in 10.12.1 and 10.12.2.

10.11 Sentence combinations

Sentences can be conjoined either asyndetically, or by the use of a sentence-initial conjunction, which is often directly followed by a pause. In the latter case, one could think of the initial constituent as constituting the frame for the rest of the sentence. It explicitly presents the preceding sentence as providing the background for the clause to come and specifies the semantic relation between the two.

- (137) (...) *sikvarapn* *randip* *anya* *vo* *san.*
 si-k-varapn randip an-ya vo s-an
 3PL.AN-use-stone.bake pig GIV-3SG.SPC SIM 3PL.AN-eat
- Voi, mansar anya idawer.*
 voi man-sar an-ya i-dawr
 but male-old GIV-SPC 3SG-be.left.over
 '(...) they used (the vegetables) to stone-bake the pig and eat. *However*, the old man did not get anything.' [MSgp]

Another example of a sentence-initial conjunction followed by a pause is given with *mura* 'afterwards' in (138).

- (138) *Mura,* *mankapinar* *imrif* *rao* *mkamorsya*
 mura mankapinar i-mrif rao mkamor=s-ya
 afterwards <k.o.fish> 3SG-laugh until eye=3PL.AN-SPC
- skain* *ro* *awukóre.* *Irya* *kwar.*
 s-kain ro awukor i-rya kwar
 3PL.AN-sit LOC back.of.head 3SG.PRED-ANAPH already
 'Then, the *mankapinarar*-fish laughed until its eyes stood at the backof it's head. That's it (the end of the story).' [MWbd]

At the present state of research, it is not yet possible to determine the functional difference between the use and non-use of pauses following the conjunction. I would hypothesize that the use of pauses has a macrostructural function, in that the sentence-initial conjunctions followed by a pause correlate more strongly with major textual boundaries than conjunctions in other positions. More research, however, is necessary to confirm this claim.

10.12 Instrumental constructions formed with *vuk* 'give' or *k-* 'INSTR'

Although instruments can be expressed by a prepositional phrase headed by the preposition *kukr* 'with' as described in 8.3.1.4, it is more common to use one of the constructions described in this section. The section describes how the verb *vuk* and the prefix *k-* are used in the formation of instrumental constructions, and suggests a historical relation between the two formatives. The subsections 10.12.1 through 10.12.3 describe several constructions in the order of least integrated towards most integrated. Then, 10.12.4 comments further on the

semantic range of the instrumental constructions, while 10.12.5 compares the *vuk* 'give' and *k*-based instrumental constructions with the use of the Indonesian loan-word *pakai* 'use'.

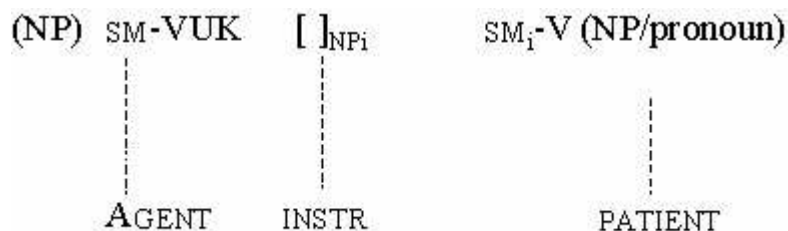
10.12.1 *Vuk* 'give' with full-NP object

Consider (139) below, where the inflected verb $v\langle y\rangle uk$ '<3SG>give' is followed by a full-NP object, referring to the instrument. Note that the verb *s-kór* '3PL.AN-make.karate.movement' agrees in person number and gender with the instrument (*vraminsya* 'arms'), and not with the Agent (*vín anya* 'the woman').

(139)	<i>Vín</i>	<i>anya</i>	<i>vyuk</i>	<i>vraminsya</i>
	vín	an-ya	$v\langle y\rangle uk$	vramin=s-ya
	woman	GIV-3SG.SPC	<3SG>give	arm=3PL.AN-SPC
			<Agent>VUK	INSTRUMENT _i
	<i>skórkar</i>			<i>aisnáwe.</i>
	s-kór-kar			ai-snáw
	3PL.AN-make.karate.movement-break			wood-branch
	SM_i-verb			Patient
	'The woman uses her arm(s) to break the branch.' [CP_B_42]			

The example above is an instantiation of the construction presented in Figure 6.

Figure 6 Instrumental construction headed by *vuk*, with full-NP object



In the construction given in the figure above, we see the instrumental verb *vuk* heading a construction that contains another verb, which I will refer to as the performative verb. The subject marker on the verb *vuk* 'give' refers to the Agent of the action, which is the entity making use of an instrument to perform a certain event. The verb *vuk* 'give' is followed by an object that refers to the instrument used. The object, then, is followed by another verb expressing the performed event. It is important to note that the subject marker on this verb agrees in person, number and gender with the instrument-object. The subject of the performing verb thus refers to the instrument.²⁹ If the performative verb is transitive, it can

²⁹ It should be noted that it is only as part of the constructions described in this and the following subsection that a subject can be identified with the instrument. In other words, an instrument can usually not be used as subject in a main clause. Thus, while the example below is perfectly acceptable with the use of $v\langle y\rangle uk$ '<3SG>give', it is very difficult to interpret without this verb, and can only be conceived of as if the knife stabs the Patient in two by itself, as if it were the Agent itself.

*($V\langle y\rangle uk$) *ino=ya i-wan-uk i.*
 <3SG>give knife 3SG-stab-in.two 3SG
 *(He used a knife) to stab it in two.' [CB_J_43]

ido (...)

Ido

THEM

'When you boil water to pour on him (...)' [SKbm]

10.12.3 The prefix *k-* 'INSTR'

Strictly speaking, the verbs prefixed with *k-* 'INSTR' should not be discussed in the present chapter, because they do not evoke multi-clausal constructions like the ones discussed in 10.12.1 and 10.12.2. However, there are strong indications that the formative *k-* historically stems from the verb *vuk* 'give', and in fact the formative *k-* still has properties of a verb. Consider the following example, where the formative *k-* has been printed in bold:

(146) *Káwós* *voi* *inán* *ker* *ma*
 k-áwós voi inán ker ma
 use-speak but <k.o.pepper> part TOP

yak *i* *dan* *ropum*.
 ya-**k** i d-an ropum
 1SG-INSTR 3SG 3SG-eat betelnut
 Agent-k INSTR_i SM_i-verb Patient

While we are speaking, I use a little pepper to eat betelnuts. [ASdo]

In the example above, the formative *k-* in fact still behaves like a verb. If we focus on the construction running from *yak i dan* 'I use it to eat', this is formally totally similar to the *vuk*-headed constructions illustrated in (142) and (143) above.³¹ Here, the verb *k-* 'use' takes a 3SG object *i* referring to the Instrument, which again is followed by a verb, whose subject marker also refers to the Instrument. A similar example is given with (147) below. It is part of a sermon given at the celebration of the ninety-year's existence of the church in Wardo.

(147) *Ra* *dirya* **taun** *samfur* *ri* *siw* *kwar*
 ra di-rya tahun samfur ri siw kwar
 along place-anaphoric year ten NUM.LNK nine already

ine *kok* *i* *myám* *ve* *varpur (...)*
 i-ne ko-k i m<y>ám ve var-pur
 3SG.SPC 1PL.INC-use 3SG <3SG>see to side-back

'Thus let us use these ninety years to look forward...' [YRco]

Although the corpus contains a handful of examples where the formative *k-* is followed by a pronoun, in the great majority of cases, the formative *k-* is linked directly with the following

³¹ Although the present constructions are similar to the *vuk*-headed constructions in most respects, there seems to be one difference. In spite of the acceptability of the elicited example (143), it seems not very natural for the *vuk*-headed constructions to have a noun phrase referring to the instrument in P1, the position directly preceding the verb. In virtually all of the non-elicited examples in the corpus, the instrument has been referred to by a full NP in one of the preceding clauses - usually in the same sentence -, whereas the use of an instrumental NP in P1 position is very rare. Considering the *k*-prefixed verbs, however, the use of a full NP in P1-position seems more natural, given the fact that it is used as such in (145) and (146). Recall that the P1 position is reserved for topics, referring to entities that the proposition is about. It seems, then, that the use of *vuk* is preferred in case the Agent is topical, while the use of *k-* is preferred in case the Instrument is topical.

(149) above again make clear that subject and topic cannot be equated. In the constructions under discussion, the subject matches with the Agent, not with the topical Instrument. As a final illustration of the prefixal *k-* consider the following example.

- (151) *Nya kermkuno ido ikákkofnuser.*
 n<y>a ker-mkun=o ido i-k-ák-kofn –usr
 <3SG>have part-small=nonSP.SG THEM 3SG-use-also-say-follow
 'As soon as he would have a small part (of meat), he could also (like the others)
 use (it) to pay his debt.'³² [MSgw]

10.12.4 Remark on the semantics of instrumental *vuk*³³ 'give' and *k-* 'use'

Considering the semantics of instrumental *vuk* 'give' and *k-* 'INSTR', two remarks are in place. First, it is not always necessary for *k-* to have a semantically coreferential noun phrase in the preceding context. In (152), for example, the prefix *k-* seems to refer to the situation described in the preceding sentence. It is part of a speech held at a meeting. The speaker has just described how disunity among the inhabitants of the village has prevented the government from giving corrugated iron (for building roofs) to the village. With the following sentence, he calls for the other inhabitants to be one, so that this unity can be used to receive what the government wants to give. Second, the same sentence also is an illustration of the wide semantic range of *k*, which is further illustrated in (153) and (154).

- (152) *Indya sebelum kosun ro na vaíme,*
 indya sebelum ko-sun ro na vaím
 so before 1PL.INC-enter LOC 3PL.INAN not.yet
- kofasos epon mankunko, fa koveoser.*
 ko-fasos e-pon mankun=ko fa ko-ve-oser
 1PL.INC-prepare REL-first self=1PL.INC CONS 1PL.INC-VBLZ-one
- Fasa kokveterima*
 fasa ko-k-ve-terima
 CONS 1PL.INC-use-VBLZ-receive
- rosa pemerintaya vyuk muma-n=na.*
 rosai pemerinta=ya v<y>uk mu-ma=n=na
 thing-what government=3SG.SPC <3SG>give PATH-to.here=SEP=3PL.INAN.SPC
 'So, as long as we have not entered it yet, let us first prepare ourselves, so that we are one.
 So that we can use (*this unity*) to receive what the government will give us.' [VYgq]

³² The verbal complex *kofn usr* 'say follow' has a meaning that is tied to the cultural practice of mutual giving existing between different clans (cf. the end of section 1.1), and refers to the payment of a kind of debt.

³³ I use the term 'instrumental *vuk*' for the verb *vuk* 'give' when used as part of one of the instrumental constructions under discussion. I have chosen to use the gloss 'give' instead of 'use' to express that the meaning 'use' is not brought about by the verb as such, but is brought about by the verb being used as part of the instrumental construction.

- (153) *Nkovuk* *i* *dan* *ee,* *inerap,* *kukr* **sambal.**
 nko-vuk i dan ee in-e-rap kukr sambal
 1PL.EX-give 3SG 3SG-eat eh fish-LNK-roast with sambal
 'We will use this packed sago to eat fish, roasted fish, with sambal.' [KAae]

- (154) *Ikák* *anine* *na* *syéwaru* *roi* *epyum* *fa*
 ikák an-i-ne na s<y>éwar=u roi e-pyum fa
 snake GIV-3SG.SPC-this then 3SG-see=U thing REL-good CONS

sansun *epyum,* *fa* *syun* *vo* **ikra**
 san~sun e-pyum fa s<y>un vo i-k-ra
 RED~enter REL-good CONS <3SG>enter SIM 3SG-use-go

yov *amber* *skovanine.*
 yov amber sko-v=an-i-ne
 to amber 3PC-POS=GIV-3SG.SPC-this
 'The snake sought something good, good clothes, to wear and *go with them*
 to their boss.' [MIaj]

10.12.5 Instrumental *vuk* 'give', *k-* 'INSTR' and the Indonesian loan *pakai* 'use'.

In some cases, the use of the verbalized Indonesian loan word *pakai* 'use' overlaps with that of instrumental *vuk* 'give', as in (155) below.

- (155) *Nkovepakai* *airámna* *fa* *nik*
 nko-ve-pakai ai-rám=na fa nik
 1PL.EX-VBLZ-use wood leaf=3PL.INAN.SPC CONS moment

nrup *ra* *bo.*
 n-rup ra bo
 3.PL.INAN-close along upside
 'We use leaves so that in a moment they close (the stones) along the upside.' [ATbi]

There is an important difference, however, in that *pakai* can be used without a following complement clause, while this is not possible for instrumental *vuk* 'give'. Thus, while in (155) *vepakai* 'VBLZ-use' could be replaced with *vuk*, this is not possible in the examples (156) and (157) below.

- (156) *Inkákvepakai* **pakuno** *va* *vo* *kavra.*
 ink-ák-ve-pakai paku=no va vo kavra
 1PL.EX-also-VBLZ-use nail=nonSP.nonSG not SIM rope
 'We don not use nails but rope.' [ATdt]

The following is the description of a film scene that shows a toy car running over a table.

- (157) **Mobil** *mainanya* *ifrar* *ra* **mejaya** *bori...*
 mobil mainan=ya i-frar ra meja=ya bo-ri
 car play=3SG.SPC 3SG- run along table=3SG.SPC upside -POS.SG

mobil	evepakai	batrei	ke?
mobil	e-ve-pakai	batrei	ke
car	REL-VBLZ-use	battery	DOUBT

'A toy car is running over the table, maybe a car using batteries?' [ST_123]

10.13 Points for further research

As this chapter has touched upon a wide range of phenomena, it was not possible to deal with all of them in great detail. Some interesting points for future research are the following. First, there is much more to be said about relative clauses. Examples like **berkat** *Mansern* *v<y>uk=na* 'blessing Lord <3SG>give=3PL.INAN.SPC' -> 'The blessings that the Lord gives', seem to indicate that Biak has internally headed relative clauses, which is rather uncommon from a universal point of view. More research is necessary on the use of the separator *n* (10.3.3) found at the end of relative clauses, especially on how this separator relates to the separator found in combination with modal *ri* (cf. examples in section 10.2.5). As for modal *ri*, it would be interesting to further analyze its modal function, as well as its relation to the anaphoric *ri* found in nominal clauses (cf. 8.5.5.4). Finally, while this chapter has restricted itself to the description of (single) clause combinations, future research would very much profit from viewing the different structures from a wide discourse perspective. I would especially recommend research on tail-head linkage, distribution of relative clauses, and thematization. I am convinced that a hunt for these hidden treasures will reveal not only much about the language itself, but also about those languages with which Biak has shared its riches.

APPENDIX A: BIAK TEXTS

This section contains four texts of different genres. For each text, it has been noted where and how it was recorded. In all texts, intonation is indicated; the sign '#' is used for falling intonation plus pause, the sign '+' for rising intonation plus pause, while the sign '...' is used for level intonation plus pause. Other punctuation marks, except the colon and inverted comma's, have been left out. The difference between falling intonation and level intonation was sometimes difficult to make.

Short story

The short story below was told by Timo Yembise, who was my main informant in Wardo. The story was video-recorded, and I hope to place both the recording and this text on the web later this year. The short story is well-known throughout Biak, and can be found in simplified form in *surat wasya* (Kijne:1950).

SKaa1

Rasya... *snon* *ri* *kyor#*
ras =ya snon ri kyor
day =3SG.SPC male NUM.LNK three
'One day, (there were) three men.'

SKaa2

Skora *skovavores#*
3PC-go sko-va~vors
3PC-go 3PC-RED~row
'They went on a rowing trip.'

SKab

Snon ri *kyor* *anskoine* +
snon ri kyor an -sko -i -ne
male count/LNK three GIV -3PC -SPC -this

iya *byabara* +
i-ya b<y>abara
3SG-SPC <3SG>suffer.k.o.skin.disease

iya *vukór* *ivyor* +
i-ya vukór i- vyor
3SG-SPC head 3SG- bald(headed)

iya *vyemnóre#*
i-ya v<y>e-mnór
3SG-SPC <3SG>VBLZ-mucus

'These three men, one suffered a skin disease, one was bald-headed, and one had a snotty nose.'

SKac

Skora *nda* *skék* *ro* *wai* *nanya* *ido+*
sko-ra n-ra sk^h-ék ro wai an-ya ido
3PC-go to.o.there-sea 3PC-go.up LOC canoe GIV-3SG.SPC THEM

"*ras ine* ... *kovors* ... *ro sorn* ... *ine*
 ras i-ne ... ko- vors ro sorn i-ne
 day 3SG.SPC-this ... 1PL.INC- row LOC deep.sea 3SG.SPC-this

voi +
voi +
 but +

oso ... *vyemnúro*
 oso v<y>e-mnúr=o
 INDEF.SG <3SG>VBLZ-mucus=O

ipok *vyunk* *awer mnór* *vyena*
 i- pok v<y>unk awer mnór v<y>e=na
 3SG- able <3SG>wipe.off PROHIB mucus <3SG>VBLZ=3PL.INAN.SPC

orovaido isnof *awer* #
 orovaido i- snof awer #
 or 3SG- sniff PROHIB #

'They agreed so they said ...the one with the snotty nose, the bald-headed one said: "this day, we sail on this deep sea, but if someone has a snotty nose, he is not allowed to wipe off his mucus, neither is he allowed to sniff." '

SKak

Inkukro myám *rarpon*
 inkukr=o m<y>ám rar- pon
 because 3SG-see to.o.there- front

ro ena *rawn* *anya* ...
 ro e- na rawn an -ya ...
 thing REL- have foremost.section GIV -3SG.SPC ...

ro bar evemnúr *riri* #
 ro bar e- ve- mnór ri-i-ri #
 thingthing REL- VBLZ- mucus GEN.SG-PRED.ANAPH #

'Because he saw frontward the one occupying the foremost section ... he was having a snotty nose (*slightly more literal*: it was a guy having a snotty nose).²

SKal

Mura *ido* *dákkofn* *wósyá*
 mura ido d-ák-kofn wós=ya
 afterwards THEM 3SG-also-say word=3SG.SPC

² Note that the NP *ro ena rawn anya* 'the one who had the foremost section' is separated from the verb by a motion adverb. Given the fact that motion adverbs usually do not intervene between the verb and the object (cf. 3.7.4), I think that the NP should not be seen as the formal object of the verb *m<y>ám*, but as frame for the nominal clause to come. It is also possible to analyze *ro* [in *ro ena*] as 'LOC' instead of 'thing', in which case *ena rawn anya* would again not be the direct object but the complement of the preposition *ro* 'LOC'.

<i>fa</i>	<i>dóve:</i>	<i>"imbo,</i>	<i>irya</i>	<i>ido</i>	<i>...³</i>	<i>ras</i>	<i>ine</i>
fa	d-óve	imbo	i-rya	ido		ras	i-ne
CONS	3SG-say	indeed	3SG.PRED-ANAPH	THEM		day	3SG.SPC-this

<i>kovors</i>	<i>ro</i>	<i>sorn</i>	<i>ine</i>	<i>vo</i>
ko-vors	ro	sorn	i-ne	vo
1PL.INC-row	LOC	deep.sea	3SG.SPC-this	SIM

<i>oso</i>	<i>vukór</i>	<i>vyedya</i>	<i>ivyor</i>
oso	vukór	v<y>e=d-ya	i- vyor
INDEF head	<3SG>POS=3SG-SPC	3SG-	bald(headed)

<i>vo</i>	<i>darésya</i>	<i>dos</i>	<i>i</i>	<i>ra</i>	<i>ryarsoyo +</i>
vo	darés=ya	d-os	i	ra	r<y>arso=yo
SIM	radiation=3SG.SPC	3SG-hit	3SG	until	<3Sg>like=O

<i>s<y>own</i>	<i>awer</i>	<i>vraminya</i>
s<y>own	awer	vramin=ya
<3SG>insert	PROHIB	arm=3SG.SPC

<i>vo</i>	<i>vyuk</i>	<i>sfu</i>	<i>awer</i>	<i>vukór</i>	<i>vyedi #</i>
vo	v<y>uk	sfu	awer	vukór	v<y>e=d-i
SIM	<3SG>use	wipe.with.a.cloth	PROHIB head	<3SG>POS=3SG-SPC	

'Afterwards, he also spoke a word so that he said: "indeed, this being the case, while we row at this sea, (if) someone's head is bald and the radiation from the sun hits him at whatever rate (lit: until it is how), he is not allowed to insert his hand (in water) and use it to wipe his head." '

SKaq1

<i>Mura</i>	<i>ido</i>	<i>+ dákkofn</i>	<i>...</i>
mura	ido	d-ák-	kofn ...
afterwards	THEM	3SG-	also- say ...

<i>vukór</i>	<i>evyor</i>	<i>anya</i>	<i>dákkofn</i>	<i>vo</i>	<i>dóve:</i>
vukór	e- vyor	an -ya	d-ak- kofn	vo	d-óve
head	REL- bald(headed)	GIV -3SG.SPC	3SG- also-say	SIM	3SG-say

<i>"imbo</i>	<i>irya</i>	<i>ido" #</i>
imbo	i-rya	ido
indeed	3SG.PRED-ANAPH	THEM

'Afterwards, he also spoke, the bald-headed one also spoke: "Okay, (this is the given situation).'

³ The expression *irya ido* is found three times in this text. The expression is uttered with either level intonation or falling intonation, as reflected in the text. The expression has an anaphoric function, but usually functions as background for the clause to come. For the use of *ri* cf. 8.5.5.4. For the function of *ido*, see 3.8, 8.3.2, and 10.6.1. The use of *ido* with falling intonation here is somewhat remarkable, given the fact that frames are usually marked by non-falling intonation.

SKaq2

<i>Ras</i>	<i>ine</i>	<i>komindī⁴</i>	<i>byabara</i>	<i>vo</i>
ras	i-ne	ko-min-ri	b<y>abara	vo
day	3SG.SPC-this	1PL.INC-member-POS.3SG	<3SG>suffer.k.o.skin disease	SIM

<i>imakr</i>	<i>ra</i>	<i>ryarsoyo:</i>	+ <i>ipok</i>	<i>isnaw</i>	<i>awer,</i>
i-	makr	ra	r<y>arso	=yo i-	pok
3SG-	itchy	until	<3SG>like	=O 3SG-	able
				3SG-	snaw
				3SG-	scratch
					PROHIB

<i>kukro</i>	<i>myám</i>	<i>rarpur</i>
kukr	=o m<y>am	rar-pur
because	=O <3SG>see	to.o.there-back

<i>ro</i>	<i>efara</i>	<i>nanya</i>	<i>byabara</i>	#
ro	e- fara	an -ya	b<y>abara	
thing	REL- hold.the.rudder	GIV -3SG.SPC	<3SG>suffer.k.o.skin.disease	

'(if) this day one of us has a skin disease and is itchy at whatever rate, he is not allowed to scratch', for he had watched backward the one holding the rudder suffered a skin disease.'

SKat

<i>Mura</i>	<i>skona</i>	<i>wós</i>	<i>eser</i>	<i>ra</i>	<i>dine</i>
mura	sko-na	wós	eser	ra	di-ne
aftwards	3PC-have	word	one	along	place-this

<i>rao</i>	<i>imnai,</i>	+ <i>skoiswara</i>	<i>kwar⁵</i>	#
rao	i- mnai	+ sko-is-wa-ra	kwar	
until	3SG- stop	+ 3PC-PRED-over.there-to.o.there	already	

'Afterwards, after they had agreed, they were out over there already.'

SKav

<i>Skora</i>	<i>ro sorn</i>	<i>anya</i>	<i>faduri</i>	<i>ma imbo</i>	...
sko-	ra ro sorn	an -ya	fadu -ri	ma imbo	...
3PC-	go LOC deep.sea	GIV -3SG.SPC	middle -POS.SG	and indeed	...

<i>evemnór</i>	<i>aniponwa</i>	+
e-ve-mnór	an-i-pon-wa	
REL-VBLZ-mucus	GIV-3SG.SPC-	front-over.there

<i>vye</i>	<i>ma</i>	<i>ipok</i>	<i>mnór</i>	<i>vyanna</i>	<i>va</i>
v<y>e	ma	i- pok	mnór	v<y>=an	-na
<3SG>give	and	3SG-able	mucus	<3SG>POS=GIV	-3PL.INAN.SPC
					not

⁴ The function of *di* or *ri* in this position is not entirely clear. The dissertation describes forms formed with *min* as partitive pronouns, cf. 3.2.7.

⁵ Coming at the word *wós*, the narrator hesitates or corrects himself. The words here are given by one of my informants. The use of *radine* with a (seemingly) anaphoric function is somewhat unusual.

kukro *nakwán* *fes* *indoka* *nro* *dine#*^{6,7}
 kukr =o na- kwán fes indoka n-ro di-ne
 because =O PL.INAN- long down approximately 3PL.INAN-LOC place-this
 'They arrived in the middle of the deep sea and indeed ... the snotty nose in the front could not bear his mucus for it had grown long downwards approximately until here.'

SKax

Mura *ido* *syéwar* *nyan#* *Syéwar* *nyan* *fa* ...
 mura ido s<y>éwar nyan s<y>éwar nyan fa
 afterwards THEM <3SG>seek road <3SG>seek road CONS

dánkar *su* *vo* *dóve:* *mumám* *munde* *kada+*
 d- ánkár su vo d-óve mu-mám mu-n-re kada
 3SG- deceive 3DU SIM 3SG-say 2PL-see PATH-to.o.there-land suppose.that

randipya *iso* *emrán* *ro...* *yénya* *bo* *ire#*
 randip =ya iso e- mrán ro yén =ya bo i-re
 pig =3SG.SPC 3SG.PRED-O REL- walk LOC sand =3SG.SPC upside 3SG-and
 So he sought for a way out. He sought a way so that ... he deceived the two and said: "if you looked landwards, there is a pig that walks at ... the beach."

SKba

Sinapan *risine* *kada+*
 sinapan ri-is-i-ne kada
 gun GEN.SG-3SG.PRED-SPC-here suppose.that

na *yaveukur* (*i*)
 na ya- ve- ukur i
 then 1SG- VBLZ- measure 3SG

rawo *imnis* *ido+* *insape* *yapáme.*
 rawo i- mnis ido insape ya- páam
 until 3SG- fit THEM then 1SG- shoot
 'If this were a gun, I would aim until it is okay, and then I would shoot.'

SKbb

Yapám *vo* *yóve* "*puu*"
 ya- páam vo y- óve puu
 1SG- light SIM 1SG- say puu

indya *isrer* *ve* *epám* *vo* *vyuk* *vrampin*
 indya i- srer ve e-pám vo v<y>uk vrampin
 so 3SG- pretend as REL-shoot SIM <3SG>give finger

⁶ Here the Speaker shows with his hand the place until where the mucus reached.

⁷ The meaning of *v<y>e* in this context is not entirely clear. It is an inflected form either of the verb *ve* 'give', or an inflected form of (a verb related to) the verbalizer *ve*. Note, however, that the verbalizer is analyzed as a prefix, whereas here it should be seen as an independent verb. For the verb *ve* 'give' cf. 10.12.4. For the verbalizer *ve* cf. 4.3.1.5.

<i>vyedine</i>	<i>vyunk</i>	<i>mnór ero</i>	<i>dine</i>
v<y>e=d-i-ne	v<y>unk	mnór e-ro	di-ne
<3SG>POS=3SG-SPC-this	<3SG>wipe.off	mucus REL-LOC	place-this

nanna #

an-na

GIV-3PL.INAN.SPC

'I would shoot and say "puu!" ', so he acted like a shooter and used his finger to wipe off his mucus.'

SKbe

<i>Mura</i>	<i>ido+</i>	<i>ero</i>	<i>fadu ...</i>
mura	ido	e-ro	fadu
afterwards	THEM	REL-LOC	middle

<i>vukór</i>	<i>evyor</i>	<i>anya</i>	<i>dóve:</i>
vukór	e- vyor	an -ya	d-óve
head	REL- bald(headed)	GIV -3SG.SPC	3SG-say

<i>"oo + ro</i>	<i>iponwa</i>	<i>vyunk</i>	<i>mnór</i>
oo + ro	i-pon-wa	v<y>unk	mnór
ooh + thing	3SG-front-over.there	<3SG>wipe.off	mucus

<i>vyanna</i>	<i>ndari</i>	<i>dánkar</i>	<i>ri⁸#</i>
v<y>=an-na	ndari	d-ánkar	ri
<3SG>POS=GIV-3PL.INAN.SPC	perhaps	3SG-deceive	IRR

'Then, the one in the middle, the bald-headed one thought, "ooh, it seems that the one in the front (over) there has wiped off his mucus and deceived (us)." '

SKbg1

<i>Mura</i>	<i>ido</i>	<i>dákkofn</i>	<i>vo</i>	<i>dóve:</i>
mura	ido	d-ák-kofn	vo	d-óve
afterwards	THEM	3SG-also-say	SIM	3SG-say

<i>irya</i>	<i>ido #</i>
i-rya	ido

3SG.PRED-ANAPH THEM

'Then he also spoke and said: "okay (this is the given situation)."

SKbg2

<i>Randip</i>	<i>ri</i>	<i>pámya</i>	<i>ido +</i>
randip	ri	pám=ya	ido
pig	GEN.SG	2SG.shoot=3SG.SPC	THEM

<i>na</i>	<i>yason</i>	<i>duro</i>	<i>ma ...</i>
na	ya- son	dur=o	ma
then	1SG- boil	boiled.water=nonSP.SG	and

⁸ The marker *ri* used here can most probably be equated with the irrealis marker used after propositions introduced by *vude~imbude* (cf. 3.7.3).

yakkundur *i #*
 ya- k- kundur i
 1SG- use- pour.hot.water.on 3SG
 'When it is a pig that you shoot, then I boil water and use that to pour hot water on it.'

SKbi

Imbo na ... yason dur anya ra imnai +
 imbo na ya-son dur an-ya ra i-mnai
 indeed then 1SG-boil boiled.water GIV3SG.SPC until 3SG-stop

yanáw ra dine myáe ...
 ya- náw ra di-ne m-yáe
 1SG- use.dipper along place-this to.here-up

yavesiram ro randip anya ra dine." #
 ya-ve-siram ro randip an-ya ra di-ne
 1SG-VBLZ-pour LOC pig GIV-3SG.SPC along place-this
 'Indeed then I boil the water and then, I take the water (with a dipper) upwards and pour it on the pig like this.' '

SKbk

Ikofn vo nyáw masn anya raryáe
 i- kofn vo n<y>áw masn an-ya rar-yáe
 3SG- say SIM <3SG>take.up salt.water GIV-3SG.SPC to.o.there-up

ikruv vukór vyedya
 i- k-ruv vukór v<y>e =d-ya
 3SG- use-wetten head <3SG>POS=3SG-SPC

kukro darésya dos mankenm indi #
 kukr=o darés=ya d-os mankenm i=ndi
 because=O radiation=3SG.SPC 3SG-hit very 3SG=IRR⁹
 'While he spoke he took the salt water up and used it to wetten his head, as the radiation hit him very hard.'

SKbm1

Mura ido + evekasip mos anipurwa ...
 mura ido evekasip mos an-i-pur -wa
 afterwards THEM REL-VBLZ-scabies dirty GIV-3SG.SPC-back-over.there

dáksmai nyanya fa dóve: "ah ... bo ... imbo #
 d- ák- smai nyan=ya fa d-óve ah, bo imbo
 3SG- also- acquire road=3SG.SPC CONS 3SG-say ah, EXCL indeed
 'Afterwards the dirty one having scabies in the back also found a way out and thought: "ah, indeed!.'

⁹ In a number of cases, *kukr(=o)* 'because' is followed by a clause closed off by *ri-ndi*. The function of this marker is not entirely clear, neither is it clear whether the marker should be equated with the marker found after the irrealis complements described in 10.2.5, or with the anaphoric marker that is used in nominal clauses (8.5.5.4).

SKbm2

Aya kako yamakr *vo mov sai na" d-óve*
 aya kako ya- makr vo mov sai na d-óve
 1SG too 1SG- itch SIM place which then 3SG-say

"imbo ... insandya ... *pyám bós i kwar ...*
 imbo insandya p<y>ám bós i kwar
 indeed just <3SG>shoot totally 3SG already

wason durya fa bukkundur i
 wa- son dur=ya fa buk-kundur i
 2SG- boil boiled.water=3SG.SPC CONS 2SG.give-pour.hot.water.on 3SG

ido na oso ipref i va voi +
 ido na oso i-pref i va voi
 THEM then INDEF.SG 3SG-scrape.off 3SG not but

aya na ekaw epref inyai #
 aya na e- kaw e- pref i=n=ya=i
 1SG then REL- make.clean REL- scrape.off 3SG=SEP=3SG.SPC=FOC

'Me too I am itchy and how then", he said, "indeed, he has just shot it dead, given that you have boiled water so that you used it to pour hot water on it, then no one else shall scrape it off, but I am the one that is going to scrape it off!'

SKbr

Na yakaw i ra dine dine dine ..."
 na ya- kaw i ra di-ne di-ne di-ne
 then 1SG- make.clean 3SG along place-this place-this place-this

kesempatanya *dáksnaw i #*
 kesempatan=ya d-ák- snaw i
 opportunity=3SG.SPC 3SG-also-scratch 3SG

'Then I clean it (along) here and here and here", and at this occasion he (also) scratched himself.'

SKbs

Indya fafyár anine snon ri kyor anskoya ...
 indya fafyár an-i-ne snon ri kyor an-sko-ya
 so story GIV-3SG.SPC-this male NUM.LNK three GIV-3PC-SPC

ive kór sko ve snonkaku ...¹⁰
 i- ve k- ór sko ve snonkaku
 3SG- want 1PL.INC- call 3PC as human.being

skóvepintar *ve mún múne #*
 skó-ve-pintar ve mún~mún
 3PC-VBLZ-clever to part~part

'So this story, these three men, we want to call them people, each one of them is clever.'

¹⁰ at this point, the narrator is searching for words

SKbu

Skofawi nanm ve mún mún indya#¹¹
 sko- fawi nanm ve mún~ mún indya
 3PC- know tremendous to part~part
 'They were all very clever, so...'

SKbv

Iya syéwar nyanya
 iya s<y>éwar nyan =ya
 3SG-SPC <3SG>seek road =3SG.SPC

fa +¹² vyunk mnór vyena +
 fa v<y>unk mnór v<y>e=na
 CONS <3SG>wipe.off mucus <3SG>POS=3PL.INAN.SPC

iya syéwar nyan fa +
 i-ya s<y>éwar nyan fa
 3SG-SPC 3SG-seek road CONS

nyaw wárna
 n<y>aw wár =na
 <3SG>take.up water =3PL.INAN

fa ikvan vukórya +
 fa i- k- van vukór =ya
 CONS 3SG- use- wash head =3SG.SPC

anipurwa syéwar nyanya
 an - i- pur -wa s<y>éwar nyan
 GIV - 3SG- back -over.there <3SG>seek road

fa + dáksnaw fasawsaw i #
 fa d- ák- snaw fa~saw~saw i
 CONS 3SG- also- scratch ~RED~fast 3SG

kukru imakr ri #
 kukr =u i- makr ri
 because =U 3SG- itch IRR

'One sought a way so that he could wipe off his mucus, one sought a way so that he could take water and wash his head, the one in the back sought a way to scratch quickly as he was itchy.'

¹¹ This is one of the very few examples where *indya* is followed by falling intonation, which is usually reserved for the end of sentences.

¹² In this sentence, there is a strong and sudden rising intonation after *nyan(ya) fa* three times in sequence. The intonation after *vyena*, *vukórya* is also rising, but less sudden.

SKbz

Indya fafyár anine fafyáru ekofn
 indya fafyár an-i-ne fafyár =u e- kofn
 so story GIV-SPC-this story =U REL- say

vadíru snonkaku fasaw fa
 vadár =u snonkaku fasaw fa
 announce =U human.being fast CONS

evepikiru # swarusrno
 e-ve-pikir=u swarusr=no
 REL-VBLZ-think=U thinking=nonSP.nonSG

fasama ido +
 fasama ido
 CONS THEM

rosai se maksudna ido ... na jadi fasaw #
 rosai se maksud =na ido na jadi fasaw
 what 3PL.AN.vblz meaning =3PL.INAN THEM then happen fast

'So this story is a story that tells about people that can think fast, way of thinkings so that ... what they intend then happens fast.'

SKcb

Mov isofroya isine kwar #
 mov isofro =ya is-i-ne kwar
 place until =3SG.SPC 3SG.PRED-SPC-this already

'The place until where (the story proceeds) is this.'

Joke

The joke below was told in May 2001, by Spenyel Krei (a man of approximately 30 years old), in the village Yendidori, West-Biak. I had come to the village to watch some adolescents from Wardo playing football, and also visited the village chief. We were invited to come and sit in front of his house, and there were several other persons present. I asked them to tell each other a number of jokes.

YMaa

Imbe *yafár* *vo korower#*
imbe ya- fár vo ko- rowr
want 1SG- tell SIM 1PL.INC- hear

'I want to tell and we listen.'

YMaa2

Yafár *ro ... pendeta oser#*
ya- fár ro ... pendeta oser
1SG- tell LOC ... minister one

'I tell about ... a certain minister.'

YMab

Pendeta *nanine* **hari.minggu** *vo +*
pendeta an-i-ne hari.minggu vo
minister GIV-3SG.SPC-this Sunday SIM

v_ye- **vyekhotba** *ro gereja #*
v<y>e- khotba ro gereja
<3SG>VBLZ- sermon LOC church

'This minister (it was) on a Sunday (and), he preached in church.'

YMac

V_ye- **Vyekhotba** *ro gereja vo dóve +*
v<y>e- khotba ro gereja vo d-óve
<3SG>VBLZ- sermon LOC church SIM 3SG-say

"perinta *samfur ryok* *kwar fa*
perinta samfur r<y>ok kwar fa
order ten <3SG> resound already CONS

harusu ... *koswar* *min kovesi"#*
harus =u ... ko- swar min ko-ve =s-i
must =U ... 1PL.INC- love member 1PL.INC-POS =3PL.ANIM-SPC

'He preached in the church and said: "The ten commandments have resounded already, that we must love our neighbours." '

YMad

V_ye- **Vyekhotba** *ro gereja voi roma*
v<y>e- khotba ro gereja voi roma
<3SG>VBLZ- sermon LOC church but son

YMai

Ya dáwaw rovean mura ido +
 ya d- áwaw rovean mura ido
 yes 3SG- lack food afterwards THEM

rya imrán ra ro pendetai#
 r<y>a i- mrán ra ro pendeta =i
 <3SG>go 3SG- walk to.o.there LOC minister =3SG

fa dóve dór rovean ro i #
 fa d-óve d- ór rovean ro i
 CONS3SG-say 3SG- call food LOC 3SG
 'He lacked food, so he walked to the minister to ask food from him.'

YMak

Rya ido pendeta syáe
 r<y>a ido pendeta s<y>áe
 <3SG>go THEM minister <3SG>go.out

voi roma vyanine ...
 voi roma v<y>=an -i -ne
 but son <3SG>POS=GIV -3SG.SPC -this

(i)¹ ... ero rumi #
 i ... e- ro rum =i
 3SG ... REL- LOC house =3SG.SPC

'At the moment that he went (there), the minister was out, but his son, he was at home.'

YMal

Mura ido dóve "anake² + yaro rum voi +
 mura ido d-óve anak -e ya- ro rum voi
 afterwards THEM 3SG-say son -E 1SG- LOC house but

yáwaw rovean indya yóve yara ma ...
 y- áwaw rovean indya y-óve ya- ra ma
 1SG- lack food so 1SG-say 1SG- go to.here

bapak *isne ido +*
 bapak is -ne ido
 father 3SG.PRED -this THEME

¹ The pause after *i* here is probably due to doubt from the side of the speaker how to proceed.

² The function of *e* used after *anak* 'child' is not entirely clear, but probably serves to call for the attention from the side of the Addressee. It might be related to the question clitic *e* described in 4.11. The corpus contains occasional other examples of *e* used after the word used to address people, like *insar-e* 'old.woman-e', or *awine* 'mother-e' [TWdn].

vye ... *rovean kerno* ... *ve aya*" #
 v<y>e ... rovean ker =no ve aya
 <3SG>give ... food part =nonSP.nonSG to 1SG

'Then he said: "son, I was at home, however, I didn't have food so I thought to come here ... if father (i.e. the minister) is here, let him please give me a little food." '

YMa

Roma vyanine ... *dóve*
 romawa v<y>=an -i -ne d-óve
 son <3SG>POS=GIV-3SG.SPC -this 3SG-say

"ooo + **bapak** *isne* ... *va* +
 ooo bapak is-ne va
 *** father 3SG.PRED-this not

yakramu ... **seno** ... *va* #
 ya- kram =u sen =o va
 1SG- store =u cent =nonSP.SG not

'His son said "father isn't here, I do not have a penny." '

YMap

Voi + **kambing** *inkovanya* ... *ma iso*
 voi + kambing inko-v=an -ya ma iso
 but + goat 1PL.EX-POS=GIV -3SG.SPC TOP 3SG.PRED-O

iriya ... *indya* + *rwa* ... *fa*
 i-ri -ya indya + r<w>a fa
 3SG.SPC-out -that so + <2SG>go CONS

wún ... *i ra* ... *bov* ... *i* #
 w- ún i ra bov i
 2SG- take 3SG until 2SG.sell 3SG

' "However, our goat is (the one) outside there so go and take it so that you can sell it." ¹³

YMaq

Bov ... *i sa* ... *vyepipi* ... *ido*
 bov i sa v<y>e-pipi ido
 2SG.sell 3SG CONS <3SG>VBLZ-money THEM

insape ... *wakdún* ... *roveanno* ... *fa* ... *wan* #
 insape ... wa- k- d-ún rovean =no fa w- an
 then ... 2SG- use- 3SG-take food =nonSP.nonSG CONS 2SG-eat

' "Sell it so that if there's money you can use it to get food so that you can eat." '

³ From the combinatory use of *ri* 'out' and *ya* 'that' in *iriya* '3SG.SPC-out-there', it is clear that the Addressee is still standing at the door, while the Speaker is inside. Compared to the speaker inside, the goat is *ri* 'out'. It is closer to the Addressee than to the Speaker, which accounts for the use of *ya* 'that' (cf. 9.3.2 and 9.5.3).

YMas

Mura ido mansar anya rya n-ri
 mura ido man-sar an -ya r<y>a n-ri
 afterwards THEM male-old GIV -3SG.SPC <3SG>go to.there-out

pyeru ... kambing anya fa dún i #
 p<y>er =u ... kambing an -ya fa d-ún i
 <3SG>loosen =u ... goat GIV -3SG.SPC CONS 3SG-take 3SG
 'So the old man went out to loosen the goat to take it.'

YMat

Pyer kambing anya fa dún ra vyov i +
 p<y>er kambing an -ya fa d-ún ra v<y>ov i
 <SG>loosen goat GIV -3SG.SPC CONS3SG-take until <3SG>sell 3SG

ma.. pendeta ibur ro fararúr kwar ma #
 ma pendeta i-bur ro f~ara~rúr kwar ma
 and minister 3SG- leave LOC ~RED~make already to.here
 'He loosened the goat to take and sell it ... then the minister came home from work.'

YMav

Ifukn vo dóve "anak ! kambing ero..
 i- fukn vo d-óve anak kambing e- ro
 3SG- ask SIM 3SG-say son goat REL- LOC

kambing efes⁴ *epn ro dirine nanya#"*
 kambing e- fes epn ro di-ri -ne nan -ya
 goat REL- tie push.tight LOC place-out -this GIV -3SG.SPC
 'He asked "son, the goat... the goat that was bound outside here...?"'

YMaw

Vo roma vyanya dóve:
 vo roma v<y>=an -ya d-óve
 SIM son <3SG>POS=GIV-3SG.SPC 3SG-say

insandya mansarya rya ma ...
 insandya man-sar =ya r<y>a ma
 just male-old =3SG.SPC <3SG>go to.here

ikofn vadíru dáwaw rovean indya
 i- kofn vadír =u d- áwaw rovean indya
 3SG- speak announce =u 3SG- lack food so

⁴ The root *fes* 'tie' is a transitive verb. Although the meaning of the form here is clear (in the sense that my informants were unanimous about the translation of *kambing efes anya* 'the goat that was tied'), it is not entirely clear how it should be analyzed. The form should probably be understood as a reduced form of the passive *e-veve-fes* 'REL-PAS-tie'.

<i>yave...</i>	<i>yakofn</i>	<i>fa</i>	...	<i>dún</i>	<i>i</i>
ya- ve	ya-kofn	fa		d-ún	i
1SG- want	1SG-speak	CONS		3SG-take	3SG

<i>ra</i>	<i>vyov</i>	<i>i</i>	<i>fa</i>	<i>ive</i>	<i>ikdún</i>	<i>rovean#</i>
ra	v<y>ov	i	fa	i- ve	i- k-	d-ún rovean
until	<3SG>sell	3SG	CONS	3SG-want	3SG- use-	3SG-take food

'His son answered "A moment ago an old man let know that he was short of food, so I wanted ...I said him to take it and sell it so that he would use it to get food." '

YMay

<i>Ba,</i>	kenapa	<i>wóve</i>	<i>wakofn</i>	<i>fa</i>
ba	kenapa	w- óve	wa- kofn	fa
EXCL	why	2SG- say	2SG- speak	CONS

<i>dún</i>	<i>i</i>	<i>ra</i>	<i>vyov</i>	<i>i!</i>
d-ún	i	ra	v<y>ov	i
3SG-take	3SG	until	<3SG>sell	3SG

' "What, why did you (think to) tell him to take it and sell it?!" '

YMaz

<i>Dóve</i>	<i>"ba,</i>	bapak	<i>wakofn</i>	<i>kwar</i>
d-óve	ba	bapak	wa- kofn	kwar
3SG-say	EXCL	father	2SG- speak	already

<i>ro</i>	...	gereja	<i>..vo</i>	<i>wóve</i>	...	harus
ro	...	gereja	vo	w- óve	...	harus
LOC	...	church	SIM	2SG- say	...	must

<i>koswar</i>	<i>min</i>	<i>kovesi</i>	<i>#</i>
ko-swar	min	ko-ve	=s-i
1PL.INC-love	member	1PL.INC-POS	=3PL.ANIM-SPC

' He answered "hey, dad, you just said in church that we must love our neighbours!" '

YMbb

Pendeta	<i>dóve</i>	<i>"a,</i>	bukan	<i>yakofn</i>	<i>ve</i>	<i>ko</i>
pendeta	d-óve	a	bukan	ya- kofn	ve	ko
minister	3SG-say	a	not	1SG- speak	to	1PL.INC

<i>vape</i>	<i>yakofn</i>	<i>ve</i>	warga	jemaatsi ⁵	<i>#</i>
vape	ya- kofn	ve	warga	jemaat	=s-i
but	1SG- speak	to	member	church	=3PL.ANIM-SPC

The minister said "Ah, I did not say that to us, but to the members of the church!"

⁵ From the recording it is clear that the speaker uses *warga jemaat=i* instead of *warga jemaatsi*. My language helper corrected =i '3SG.SPC' into =s-i '3PL.AN-SPC'. This may be a case of hypercorrection, however, given the fact that the corpus contains several examples of groups being referred to by a singular, cf. 3.3.3.2.

Speech (meeting on division of land)

This speech is part of a meeting on problems with respect to the division of the land in the village, which takes place in the desa Yomdori, part of the village (kampung) Wardo, West-Biak. The meeting has been organized by the chiefs of the three desas into which Wardo is divided. The meeting is attended by approximately 35 people, from different clans. The woman talking here is the only woman present at the meeting. She is about fifty years old and married to a man from the clan 'Maker'.

Although I frequently asked people in the village to warn me in case there would be something interesting to record, I had not heard about this meeting, and it was just a lucky coincidence that I happened to come by the place where they had the meeting.

Whereas in the other texts I have made distinction between level and rising intonation, in the speech of this speaker the difference was too subtle to be noted by the researcher. In this text, then, the sign '...' generalizes over level and rising intonation. The sign ':' is used in this text to indicate (extreme) lengthening of a vowel (cf. 2.5.7).

VYjo

Terimakasih...	<i>ve</i>	meja	pimpinan...	<i>yakofn</i>	terimakasih ...
terimakasih	<i>ve</i>	meja	pimpinan	ya-kofn	terimakasih
thanks	<i>to</i>	table	guidance	1SG-say	thanks

<i>fa</i>	<i>ro</i>	Danramil¹	...
fa	<i>ro</i>	Danramil	
to.there	LOC	<administrative.commander>	

<i>ma</i>	terimakasih ...	<i>wer</i>	<i>fa</i>	<i>ro</i>	<i>romawa</i> ...
ma	terimakasih	wer	fa	ro	romawa
and	thanks	again	to.there	LOC	child

<i>srar</i>	<i>aye</i>	<i>era</i>	<i>ma</i>	<i>mkoine</i> ...	<i>ve</i> ...
srar	aye	e- ra	ma	mko -i-ne	ve-
cross.sibling	1SG.POS	REL- go	to.here	2PL -SPC-this	REL-

'Thanks to the chairman, I say thanks to the *danramil*-official, and thanks to you my children and brothers who have come here, who ...'

VYjr

<i>kosoyu</i>	<i>mananwir</i>	<i>kovanskoine</i>	
ko-so=yu	mananwir	ko- v=an	-sko -i -ne
1PL.INC-accompany =U	village.chief	1PL.INC-POS=GIV	-PC -SPC-this

<i>fararyór</i>	<i>skovena</i>
fa~ra~ryór	sko-ve =na
RED~request	3PC-POS =3PL.INAN.SPC

¹ Danramil is an abbreviation of Komandan Rayon Militer, and is the title used for a commander of the army administrative unit at the level of the kecamatan (subdistrict).

vo kora ma ro dine#
 vo ko- ra ma ro di-ne
 SIM 1PL.INC- go to.here LOC place-this
 '...we (want to) follow the invitations by our village chiefs and have come here.'

VYjt

Imbo ... vín risaya rya
 imbo vín ri-is -aya rya
 indeed female GEN.SG-3SG.PRED -1SG so

rosai yave yákkofni #
 what ya- ve y- ák- kofn =i
 what 1SG- want 1SG- also- say =3SG.SPC
 'Indeed, I am a woman, so what can I say (also, i.e. like the others)?'

VYju

Mandirarya yabur ma... yakmóm syaprám ine
 mandira-rya ya-bur ma ya-kmóm syap-rám i-ne
 afternoon-ANAPH 1SG-leave to.here 1SG-confused letter-leaf 3SG.SPC-this

dákap snori mura ...
 d- ák- ap sno -ri mura
 3SG- also- mention name -POS.SG afterwards

ya-kmóm vo yakofn vo yóve
 ya-kmóm vo ya- kofn vo y- óve
 1SG-confused SIM 1SG- say SIM 1SG- say

"bo! vín risaya vo
 bo vín ri- is-aya vo
 wah! female GEN.3SG-3SG.PRED-1SG SIM

rosai na yara fa yave yákkofni#"
 rosai na ya- ra fa ya-ve y-ák-kofn=i
 what then 1SG- go CONS 1SG-want 1SG-also-say=3SG.SPC

'Last afternoon I came home and I was confused (that) this letter also mentioned my name, so I said: "wah, I am a woman so what then shall I go and want to say?"'

VYjx1

Vape... yavesyówi marsir mko va² #
 vape ya- ve- syówi marsir mko va
 but 1SG- VBLZ- honour marsir 2PL not

'But I honour you very much.'

² As described in 3.7.3, the combination *marsir* with a negative adverb *va* has an intensifying function. The meaning of *marsir* by itself, however, is not known.

VYjx2

Vo yór yov mko ...
 vo y- ór yov mko
 SIM 1SG- call to 2PL

romawababo ee sinan anmkoine
 romawa-babo ee sinan an - mko -i -ne
 child-young eh older.person GIV - 2.PL -SPC -this

rao: romawababo nanmkoine #
 rao romawababo an - mko -i -ne
 until child-young GIV - 2PL -SPC -this

'And I call to you, young children, eeh, from you older persons until you younger children.'

VYjz

Mandovindya koro pampan #
 mandovindya ko- ro pampan
 yesterday 1PL.INC- LOC darkness
 'Yesterday we were in darkness.'

VYka

Sinan kovansya
 sinan ko- v=an -s-ya
 older.person 1PL.INC- POS=GIV -3PL.AN-SPC

sákfrar ra Sopn vo
 s- ák- frar ra Sopn vo
 3PL.AN- also- run until Sopen SIM

sákfrar ra
 s- ák- frar ra
 3PL.AN- also- run until

Marienu ... bon annaiwara #
 Marien =u bon an -na -i -wa -ra
 Marien =U hill GIV -3PL.INAN -SPC -over.there -to.o.there
 'Our ancestors also went until Sopen, and went until Marien ... the mountains far away.'

VYkb

Yákfawi farfyárna va rya
 y- ák- fawi farfyár =na va rya
 1SG- also- know story =3PL.INAN.SPC not so

sinan kovansya sóve
 sinan ko-v=an-s-ya s-óve
 older.person 1PL.INC-POS=GIV-3PL.AN-SPC 3PL.AN-say

VYkg2

<i>Réfo</i>	<i>ído</i>	<i>ro</i>	<i>Mansinami#</i>
réfo	i- ^h do	ro	Mansinam-i
bible	3SG-descend	LOC	Mansinam-iPROP

VYkg3

<i>Srowr</i>	.. ⁵
s-	rowr
3PL.AN-	hear

guru	<i>Petrus</i>	<i>Kafiar</i>	<i>dún</i>	<i>i</i>	<i>ma</i>	<i>ryo</i>	<i>Maudori</i> ⁶	#
guru	Petrus	Kafiar	dún	i	ma	r<y>o	Maudori	
teacher	Petrus	Kafiar	3SG-take	3SG	to.here	<3SG>LOC	Maudori	

'Formerly, Biak. The bible had descended at Mansinam, they heard ... teacher Petrus Kafiar had brought it in this direction, to Maudori.'

VYki

<i>Indo ... sinan</i>	<i>kovanskoya</i>	...
indo	sinan	ko-
THEM	ancestor	1PL.INC-
		v=an
		-sko
		-ya
		POS=GIV
		-3PC
		-SPC

<i>skora</i>		<i>skún</i>		<i>wós</i>	<i>anine#</i>
sco-	ra	sk ^h -	ún	wós	an-i-ne
3PC	go	3PC-	take	word	GIV-3SG.SPC-this

'Thus, our ancestors went there and took this word.'

VYkj1

<i>Kaisubu</i>	<i>dérer</i>	<i>riryá</i>	<i>kada</i> ⁷
Kaisubu	d- érer	ri-i-rya	kada
Kaisubu	3SG- alone	GEN.SG-3SG.PRED-ANAPH	suppose.that

<i>na rya</i>	<i>dún</i>	<i>i</i>	<i>va</i>	#
na	r<y>a	d-ún	i	va
then	<3SG>go	3SG-take	3SG	not

'If Kaisubu had been alone, he would not have been able to bring it.'

VYkj2

<i>Maker</i>	<i>dérer</i>	<i>riryá</i>	<i>kada</i>
Maker	d- érer	ri-i-rya	kada
maker	3SG- alone	GEN.SG-3SG.PRED-ANAPH	suppose.that

⁵ It seems that the woman here corrects herself, which accounts for the non-epenthesis of *e* in *I*-final position

⁶ Petrus Kafiar was a Biak person, who had been bought by the missionary Van Hasselt in Mansinam to become one of his servants. He was one of the first Biak persons who became Christian. At the beginning of the 20th century he was sent to Maudori, North Supiori as a teacher / missionary.

⁷ When checking this text with my informants, I wrote down *kada na* 'suppose.that then'. When listening after the story afterwards, however, I discovered that the speaker uses *ka* instead of *kada*, which is most probably an allomorph of *kada*.

na kora kún i va #
 na ko- ra k^h- ún i va
 then 1PL.INC- go 1PL.INC- take 3SG not
 'If Maker had been alone, we would not have been able to take it.'

VYkk

Va snonsnonu ... vaveoseri#
 va snonsnon =u va~ve-oser =i
 because name =U RED~VBLZ-one =3SG.SPC
 'For it was only because of their working together.' (lit. 'for the name (to describe the situation) was: unity.')

VYkl

Mananwir anya fyadwarn
 mananwir an-ya f<y>adwarn
 village.chief GIV-3SG.SPC <3SG>announce

ro mnu nanya ve munya munya ido ...
 ro mnu an-ya ve mun =ya mun =ya ido
 LOC village an-3SG.SPC to part =3SG.SPC part =3SG.SPC THEM

spai wai veba oser anya⁸ ma... sikvorsu ...
 s- pai wai ve- ba oser an-ya ma si- k- vors =u
 3PL.AN- nail canoe REL-big one GIV-3SG.SPC and 3PL.AN- use- row =U

a... yakmóm waiya snonsnoni#
 a ya- kmóm wai =ya snonsnon =i
 a 1SG- confused canoe =3SG.SPC name =3SG.SPC

'When the village chief announced in each part of the village, they made (lit. nailed) this one big canoe and used that to row ... O, I cannot remember the name of the canoe.'

VYko

Sra nde súnú ... wós
 s-ra n- re s-ún=u wós
 3PL.AN-go MOVE-land 3PL.AN-take=U word

anine ma ... na na
 an-i-ne ma ... na na
 GIV-3SG.SPC-this to.here ... then 3PL.INAN

⁸ Note how the use of *an* 'GIV' expresses that the Speaker expects her audience to know about this ship. The coming of the Gospel to Biak is commemorated yearly, and the stories about how this happened are quite generally known. I happen to have recorded a sermon where the name of the ship is mentioned, when the Speaker tells how Frans van Hasselt used the ship "Utrecht" to bring Petrus Kafiar to Maudori.

insape srar ye ... Yembise ikofen #
 insape srar ye Yembise i- kofn
 then cross.sibling 1SG.POS Yembise 3SG- say

'They went to the land (Mansinam) and brought the word here, this then my brother Yembise he said...'

VYkp

Abrams dádo ro yénya bo
 Abrams d- ádo ro yén =ya bo
 Abrams 3SG- go.down LOC sand =3SG.SPC upside

nanirawa ido ikofn vo dóve ...
 an-i -ra-wa ido i-kofn vo d-óve
 GIV-3SG.SPC-sea-over.there THEM 3SG-say SIM 3SG-say

"kukr snonsnon Manserni ... Yesusi ...
 kukr snonsnon Manseren =i Yesu =i
 with name Lord =3SG Jesus =3SG

Rur vesrenya yarf ro... mnu ine#⁹
 rur ve- sren =ya y- arf ro mnu i-ne
 spirit REL- holy =3SG.SPC 1SG- tread LOC village 3SG.SPC-this

'When Abrams went out of his ship on the sand at the seaside over there, he said "in name of the Lord, Jesus and the Holy Spirit, I tread on (the land of) this village." '

VYks

a indo ... Ottow Geissler suido suyóve ...
 a indo Ottow Geissler su- ido suy- óve
 a then Ottow Geissler 3DU- THEM 3DU- say

"kukr snonsnon Manseren ... Yesusi ... rur vesrenya
 kukr snonsnon Manseren ... Yesu =i rur ve- sren =ya
 with name Lord ... Jesus =3SG spirit REL- holy =3SG.SPC

yarf ro sup ine#
 y- arf ro sup i-ne
 1SG- tread LOC land 3SG.SPC-this

'Ottow and Geissler said "in name of the Lord, Jesus, and the Holy Spirit I tread on this land" '

VYku

Indo ko ido ... dóve mnu ine#
 indo ko- ido ... d-óve mnu i-ne
 then 1PL.INC- THEM ... 3SG-say village 3SG.SPC-this

'As for us, then (this means that) he said: this village.'

⁹ At the demand of Wardo, Van Hasselt sent the Moluccan teacher /missionary Julians Abrams to Wardo. According to a monument in the village Wardo, Julians Abrams arrived in Wardo in 1911. According to Kamma (1977:674) he was sent in 1913. From Wardo, the gospel spread throughout the island Biak.

VYkv

Indya ... **kasihan** *roma nanmkoya* *swarusr*
 indya kasihan roma an -mko -ya swarusr
 so poor.X child GIV -2.PL -SPC thinking

mkovanna *naisyafa:*
 mko- v=an -na na-is-ya -fa
 2PL- POS=GIV-3PL.INAN.SPC 3PL.INAN-PRED-that-to.there

ekaki *ebana* *naisyafa* *voi*
 e- kaki e- ba =na na- is-ya -fa voi
 REL- high REL- big =3PL.INAN.SPC 3PL.INAN-PRED-that -to.there but

nai *yave* *yakofn* *yov* *mkona* *va*¹⁰#
 na -i ya- ve ya- kofn yov mko =na va
 3PL.INAN -FOC 1SG- want 1SG- say to 2PL =3PL.INAN.SPCnot
 'So, poor me, children, you probably have higher and bigger thoughts (than I have), but that is not what I want to say to you.'

VYkx

Insandya ... *mkokofn* *vo* *mkokofn* *wer#*
 insandya mko- kofn vo mko- kofn wer
 recently 2PL- say SIM 2PL- say again
 'Recently you have just spoken and will speak again'

VYky

Mananwir *anmkoya* *rao:* *sinan* *oseroser*
 mananwir an - mko -ya rao sinan oser~oser
 village.chief GIV - 2.PL -SPC until older.person one~one

ekain *ro* *mandovindya kankain* *mnu* *Wardo*
 e- kain ro mandovindya kan~kain mnu Wardo-i
 REL- sit LOC yesterday RED~sit village Wardo-iPROP

fa *eyors* *mumre* *nanmkoine* ...
 fa ey- ors mu- m- re an - mko -i -ne
 CONS REL- stand PATH- to.here- land GIV - 2.PL -SPC -this

mkovuk *nyan* ... *mkovuk* *swarusr* *ve romababo* *nansine* ...
 mko- vuk nyan ... mko- vuk swarusr ve roma-babo an -s-i -ne ...
 2PL- give road ... 2PL- give thinking to child-new GIV-3PL.ANIM-SPC-this

¹⁰ The clause running from *nai* through *mkona va* is an example of a cleft construction, as described in 10.3.5.

yawarpu si vo inko.
 ya- warpu si vo inko
 1SG- together.with 3PL.ANIM SIM 1.PL.EX

'You our village chiefs, and all of you older persons who were present at the meeting of the village Wardo¹¹ so that you have moved to here, landwards, you (should) show a road and a thinking to these young children... I am with them and with us.'¹²

VYld

Na ... indya ro yór
 na indya ro y- ór
 then so thing 1SG- call

yovu... romawa ayannaine mko: ...
 yov =u romawa ay=an -na -i -ne mko
 to =U child 1SG.POS=GIV -3PL.INAN -SPC -this 2PL

orovaido sinan oseroser era ma ekain an-ko-i-ne
 orovaido sinan oser~oser e- ra ma e-kain an-ko-i-ne ...
 or older.person one~one REL- go to.here REL-sit GIV 1PL.INC-SPC -this

kukr kaku kaku ...
 kukr kaku kaku
 with real real

insandya sinan Obinaru: ikofn
 insandya sinan Obinaru i- kofn
 just older.person Obinaru 3SG- say

vo dapu snonsnon
 vo d- ap =u snonsnon
 SIM 3SG- mention =U name

ri kyor anskoya kwar ma... korower#
 ri kyor an-sko -ya kwar ma ko- rowr
 NUM.LNK three GIV-3PC-SPC already and 1PL.INC- hear

'Then ... so the thing I ask to you my children, or to us elders who have come and sit here, let us really sir Obinaru has just mentioned the three names and ... let us listen.'

VYlh

Sinanya i evuk rur vekaku... rur vedif ...
 sinan=ya_i i_i e_i-vuk rur ve-kaku rur ve-dif
 Lord=3SG.SPC 3SG REL-give spirit REL-real spirit REL-urge

¹¹ The speaker refers to a meeting in 1983, in which some important proposals were made with regard to the division of land.

¹² It is not entirely clear how the structure of the end of this sentence (*ya-warpu si vo inko* '1SG-be.with 3PL.AN SIM 1PL.EX' -> 'I am with them VO 1PL.EX') should be analyzed. According to my informant, *inko* '1PL.EXCL' refers to the younger generation, inclusive of the Speaker. The use of 'vo' is remarkable here, as it is normally used to link two clauses (cf. 10.6.3 and 10.8.1), while here it seems to link the pronoun *inko* to the preceding clause.

<i>rur</i>	<i>vaveoser</i>	...	<i>fa</i>	<i>(na)</i>	<i>ive</i>	<i>ikfaduru</i>		<i>ko</i>
[<i>rur</i>	<i>va~ve-oser_j</i>		<i>fa</i>	<i>(na_j)</i>	<i>i_i-ve</i>	<i>i_i</i>	<i>k_j-</i>	<i>faduru</i>
<i>spirit</i>	RED~VBLZ-one	CONS	3PL.INAN	3SG-want	3SG-	use-	take.care.of	1PL.INC

<i>ra</i>	<i>dinenna</i>		<i>ido</i>	<i>kokáme...</i>	<i>kóres</i>
<i>ra</i>	<i>di-ne=n=na_j]_{NP}</i>		<i>ido</i>	<i>ko-kám ...</i>	<i>k^u-</i>
along	place-this=SEP=3PL.INAN	THEM	1PL.INC-all	use-	stand

... *koveyuri...*
 ... *ko-ve-yuri*
 ... 1PL.INC-VBLZ- assemble

<i>ma</i>	<i>koso</i>		<i>mov</i>	<i>e-vesne</i>	<i>nanine#¹³</i>
<i>ma</i>	<i>ko-so</i>		<i>mov</i>	<i>e-ves-ne</i>	<i>an-i-ne</i>
and	1PL.INC-follow	place	REL-be.like-this	GIV-3SG.SPC-this	

'Given that the Lord is the one who gives a spirit that is true, a spirit that urges, a spirit of union, so that it is that what he uses to take care of us in that way... let us all stand, let us assemble and follow this situation.'

VYlm1

Imbo insape #
imbo insape
 indeed then .
 'Okay then.'

VYlm1

Mnukmnuk-mkun orovaido:
mnuk~mnuk-mkun orovaido
 part~part-little or

<i>mov</i>	<i>ri</i>		<i>saiu</i>	...	<i>mansar</i>	<i>ayanya</i>
<i>mov</i>	<i>ri</i>		<i>sai</i>	=u ...	<i>mansar</i>	<i>ay=an</i> -ya
way	NUM.LNK	which	=U ...	old.man	1SG.POS=GIV	-3SG.SPC

<i>nu-</i>	<i>frúr</i>	<i>ro=ya</i>	<i>ido</i>
<i>nu-</i>	<i>frúr</i>	<i>ro =ya</i>	<i>ido</i>
1.PL.EXC	make	LOC =3SG.SPC	THEM

¹³ The structure of this sentence is quite complex, and not entirely clear. Indexes have been placed to clarify what I understand of the structure. The sentence starts with a cleft construction, with 3SG *i* directly followed by a headless subject relative clause (RC), which runs from *evuk* through *vaveoser*. The NP containing the RC, however, is not closed off by a determiner. The first cleft is followed by a second cleft construction running from *(na)* through *dinenna*. In the text that has been checked by my informants the free pronoun *na* was lacking. It has been added, however, because I think it can be added (which however needs to be checked!), and is useful to show the structure of the construction. The initial free pronoun *na*, then, is followed by a headless relative clause, running from *ive* through *dinenna*. More on clefts can be found in 10.1.5.

nufrúr roro diri #

nu- frúr ro di-ri
1DU.EX- make LOC place-ANAPH

'Indeed, then, the small parts or ... which place ... as for where my husband and I make a garden, the two of us work there (and nowhere else).'

VYlo1

Voi vaveoser mnu ... anyama ...
voi va~ve-oser mnu ... an -ya ma
but RED~VBLZ-one village ... GIV-3SG.SPC TOP

yór ro romawa inai nanmkoinefa ...
y- ór ro romawa inai an - mko -i -ne-fa
1SG- call LOC son daughter GIV - 2.PL -SPC -this-to.there

Wardo i ma korir awer i #
Wardo i ma ko- rir awer i
Wardo 3SG TOP 1PL.INC- let.loose not 3SG

'But the union of the village, this I ask you sons and daughters around here: Wardo, let's not lose hold of it.'

VYlo2

Batesda i ma korir awer i¹⁴ #
Batesda i ma ko- rir awer i
Batesda 3SG TOP 1PL.INC- let.loose not 3SG

'Batesda, let's not lose hold of it.'

VYlo3

Betel ma korir awer i #
Betel ma ko- rir awer i
Betel TOP 1PL.INC- let.loose not 3SG

'Betel, let's not lose hold of it.'

VYlr

Kaku kaku veri #

kaku kaku veri
truth truth precisely

(Let 's) really (not do that)!

VYls

Kora ma nine ...
ko- ra ma SEP=i-ne
1PL.INC- go to.T.is.V SEP=3SG.SPC-this

¹⁴ Wardo is the name for the entire village, Batesda and Betel are names for the congregations of the two churches in different desas, all part of the village Wardo. One congregation is in the desa Wardo, the other in the desa Yomdori.

<i>wós</i>	<i>ine</i>	...	<i>kopok</i>		<i>korir</i>		<i>i</i>	<i>ro</i>	...
wós	i-ne		ko-	pok	ko-	rir	i	ro	
word	3SG.SPC-this		1PL.INC-	able	1PL.INC-	let.loose	3SG	LOC	

jam	<i>ine</i>	<i>va</i>	<i>veri</i>	...	tanggal	<i>ine</i>	<i>va</i>	<i>veri</i>	...
jam	i-ne	va	veri		tanggal	i-ne	va	veri	
hour	3SG.SPC-this	not	precisely		date	3SG.SPC-this	not	precisely	

<i>ras</i>	<i>ine</i>	<i>va</i>	<i>veri</i> ...	<i>paek</i>	<i>ine</i>	<i>va</i>	#
ras	i-ne	va	veri	paik	i-ne	va	
day	3SG.SPC-this	not	precisely	month	3SG.SPC-this	not	

'Now that we have come here, let 's not lose hold of this word (i.e. of what we have agreed upon), not at this hour, not at this date, not today, not this month.'

VYlu

<i>Knik</i>	<i>kobur</i>	<i>ido...</i>	<i>kovuk</i>	<i>i</i>	<i>ikofn</i>	<i>yov</i>
knik	ko-bur	ido	ko-vuk	i	i-kofn	yov
moment	1PL.INC-leave	THEM	1PL.INC-use	3SG	3SG-say	to

<i>romawa inai</i>	...	<i>naek</i>		<i>ma srar</i>	<i>kove</i>
romawa inai		naek		ma srar	ko-ve
son daughter		parallel.sibling		and cross.sibling	1PL.INC-POS

<i>eyákra</i>	<i>ma</i>	<i>vasi</i>	#
ey- ák- ra	ma	va	=s-i
REL- also- go	to.here	not	=3PL.ANIM-SPC

'When we leave in a moment, let's use it (these words) to tell towards our sons, daughters, brothers and sisters who have not come here.'

VYlw

<i>Fasama</i>	<i>ido</i>	<i>mesr isnai</i>
fasama	ido	mesr i-snai
CONS	THEM	day 3SG-light

<i>oso</i>	<i>ive</i> ...	<i>rya</i>	<i>ker</i>	<i>vondi</i>		<i>muma</i>	<i>ke:</i>
oso	i-ve	r<y>a	ker	von	-ri	mu -ma	ke
INDEF.SG	3SG-want	<3SG>go	from	side	-out	PATH-to.here	DOUBT

<i>oso</i>	<i>wer...</i>
oso	wer
INDEF.SG	again

<i>kyain</i>	<i>ra</i>	<i>ikofn</i>	<i>wós</i>	<i>ine</i>	<i>kávor</i>	<i>ido</i>	...
k<y>ain	ra	i-kofn	wós	i-ne	kávor	ido	
<3SG>sit	until	3SG-say	word	3SG.SPC-this	cross(over)	THEM	

<i>na</i>	<i>wakofn</i>	<i>awer</i>	<i>va</i>	...
na	wa- kofn	awer	va	
then	2SG- say	not	because	

nkove *na* *ra* *navro* *kwar#*
 nko-ve na ra na-vro kwar
 1PL.EX-give 3PL.INAN.SPC until 3PL.INAN-finished already

'In order that tomorrow one wants ... to come from outside in this direction, another one again ... he sits down and says this word (i.e. makes a claim on the land), do not agree because, we have already arranged everything (lit. we have caused it to be finished).'¹⁵

(...)

VYms

Indya ro yór *yov mkonya ...*
 indya ro y- ór yov mko =n=ya
 so thing 1SG- call to 2.PL =SEP=3SG.SPC

vaveoser *kaku* *risine* *ido ...*
 va~ve~oser kaku ri-i-is-i-ne ido
 RED~VBLZ-one real GEN.SG-3SG.PRED-SPC-this THEM

mkora *muma* #
 mko- ra mu -ma
 2PL- go PATH-to.here

'So what I ask you, if this here is real unity, you come here.'

VYmu

Mkowarpu
 mko- warpu
 2PL- together.with

marga veba *inkovanine*
 marga ve- ba inko= v-an -i-ne
 clan REL- big 1PL.EX= POS-GIV -3SG.SPC-this

marga Maker *ma kora* *ndum*
 marga Maker ma ko- ra n-rum
 clan <name.of.clan> TOP 1PL.IN- go MOVE-inside

koveusr *ve pono...* *var ine* *ve pon #*
 koveusr ve pon=o var i-ne ve pon
 1PL.INC-VBLZ-follow to front=O side 3SG.SPC-this to front

'You and our 'big clan' the clan Maker, let 's go in and follow towards the east.'

¹⁵ The construction running from *nkove* through *navro* is dealt with in 10.5.2 under the heading of causative constructions.

VYmw

<i>Insape</i>	<i>kora</i>		<i>ve</i>	<i>var</i>	<i>ine</i>	<i>...</i>	<i>var</i>	<i>ine#</i>
insape	ko-	ra	ve	var	i-ne	...	var	i-ne
then	1PL.INC-	go	to	side	3SG.SPC-...	side		3SG.SPC-this

'And let's then go to this side and to this side.'

VYmx

<i>Irya</i>	<i>kwar</i>	terimakasih	<i>...</i>
i-rya	kwar	terimakasih	
3SG.SPC-ANAPH	already	thanks	

That' s it, thanks.

Prayer

The text below is the first part of a prayer, which follows a sermon by the same person (Demianus Andarek), and is part of a church service in the village Yomdori where I spent my second fieldwork period. It is uttered from the pulpit in a loud and clear voice, and is spoken by heart. Compared to other genres, the prayer is remarkable in the free word order, and in the high number of relative clauses, many of which are headless and in apposition to an NP, as in GDaa. The prayer has been video-recorded and will be placed on the web later this year.

GDaa

Syóm¹ sanandik ve Yahwe Allah Kma inkovedya
syóm s~anan~dik ve Yahwe Allah kma inko-ve=d-ya
homage RED~praise to Yahwe God father 1PL.EX-POS=3SG-SPC

vekain ro nánki² mov vesren ma venapes³ #
ve- kain ro nánki mov ve-sren ma ve-naps
REL- sit LOC heaven placeREL-holy and REL-righteous
'Homage and praise to Yahweh God our Father who lives in heaven, the holy and righteous place.'

GDab

Mansern ro ras nakám vevefnder va
Manseren ro ras na-kám veve- fnder va
Lord LOC day 3PL.INAN- all REL-VBLZ- forget not

vrawur~vrawur bena inko
vrawur~vrawur be- na inko
hand.print~hand.print 2SG.VBLZ- 3PL.INAN 1.PL.EX

ro dunia ine bori⁴ #
ro dunia i-ne bo -ri
LOC world 3SG.SPC-this upside -POS. SG
'Lord, (you) who do not forget us your hand prints in this world.'

¹ According to Van Hasselt (1947:217), the term *syom* in former times specifically referred to the paying of tribute to the Tidorese sultan or the *raja*'s in Waigeo and Salawati.

² Van Hasselt (1947: 163) writes that (at the time of writing) *nàngi* or *nàngè* 'sky, firmament' is 'the Highest power, honoured by Biak and Numforic clans as *Nange* and *Mansren Nange* (Lord *Nange*)', and describes an offering ritual that used to be performed to please this god. Nowadays the word *nánki* is also used for reference to 'heaven', as is the case in the present text.

³ Note that here the relative clause running from *ve* through *naps* follows the NP running from *Yahweh* through *inkovedya*. The relative clause should be analysed as a headless relative clause (cf. 10.3.2), which is in apposition to the NP *Yahweh ...inkovedya*. It is to be expected that appositional relative clauses like the one under discussion here are (generally) extensive, whereas the relative clauses described in 10.3 are (generally) restrictive. For the fact that the appositional clause is not closed off by a determiner, compare footnote 4.

⁴ The word *vra-wur* is a compound of the inalienable *vra* 'arm' and a following *wur* that has not been attested independently, but is also found in the paradigmatically related *wewur* 'foot-print'. As for the text running from *Mansern* through *bori*, the following should be noted: (1) the remarkable place of *va*, which here is not placed in clause-final position, cf. 3.7.5; (2) the relative clause running from *ro ras* through *bori* is in apposition to *Mansern*. The adverbial *ro ras nakám* 'at all days' precedes the relative verb *vevefnder*; (3) the relative clause under discussion is not closed off by a determiner. A possible explanation may be the fact that the relative clause is in apposition to a proper noun, and is therefore definite and specific by definition, cf. section 5.4.

GDad1

Sye Manseren #
 sye Manseren
 'O Lord'

GDad2

Roro mun arwo ine +
 ro mun arwo i-ne
 LOC part morning 3SG.SPC-this

jemaat *bedya ...* *inkoraryur* *ro rum vesren*
 jemaat be=d-ya inko- ra~ryur ro rum ve- sren
 parish 2.SG.POS=3SG-SPC 1PL.EX- RED~gather LOC house REL- holy

dam banine *ma insama* *inkosyóm*
 dam b=an-i-ne ma insama inko- syóm
 very POS.2SG=GIV-3SG.SPC-this and CONS 1PL.EX- homage

inkosandik *Mansern Aw... syówi nkovena* *ve*
 inko- sandik Manseren Aw syówi nko- ve -na ve
 1PL.EX- praise Lord 2SG reverence 1PL.EX- POS -3PL.INAN to

Aw.. .snar saswar berkat bedya *ve inko #*
 Aw snar sa~swar berkat be=d-ya ve inko
 2SG because RED~love blessing 2SG.POS=3SG-SPC to 1PL.EX

'O Lord, at this morning, this parish of yours, we have come together in this very holy place of yours, to bring praise and honour to You Lord, our reverence to you because of your blessing to us.'

GDah1

Manseren + roro minggu swáf *anine +*
 Manseren ro minggu swáf an-i-ne
 Lord LOC week distance GIV-3SG.SPC-this

roro fararur inkovena *eser~eser #*
 ro f~ara-rur inko- ve =na eser~eser
 LOC RED~make 1PL.EX- POS =3PL.INAN.SPC one~one
 'Lord, during this (past) week, in the work of each one of us.'

GDah2

Nkosmai **berkat** *ro na ...*
 nko- smai berkat ro na
 1PL.EX- acquire bless LOC 3PL.INAN

nra *muma* *ro Mansern Aw #*
 n- ra mu -ma ro Manseren Aw
 3.PL.INAN- go PATH-to.here LOC Lord 2SG
 'We have received blessings in it, they (i.e. these blessings) all come from you Lord.'

GDaj

Sehingga *insandya mankundaw rrowr rirya*
 sehingga insandya mankund=aw r<w>owr ri-i-rya
 so.that recently self=2SG <2SG>hear GEN.SG-3SG.PRED-ANAPH

kada, inkofúr pengucapan syukur
 kada inko-fúr pengucapan syukur
 suppose.that 1PL.EX-make pronouncing thank.God

ma inkosyóm inkosandik Mansern Aw #
 ma inko- syóm inko- sandik Manseren Aw
 and 1PL.EX- homage 1PL.EX- praise Lord 2SG

'So that as you may have heard Yourself, we have given thanks and brought homage and praise to You Lord.'

GDam

Snar inkáw inko vo
 snar ink^u- aw inko vo
 because 1PL.EX-arrange 1.PL.EX SIM

inkosmai roio ro dunia ine va #
 inko- smai ro=yo ro dunia ine va
 1PL.EX- acquire LOC=nonSP.SG LOC world 3SG.SPC-this not
 'Because we arrange ourselves but do not acquire anything in this world.'

GDan

Vape nakáme Mansern buk muma ve kawasa
 vape nakám Manseren buk mu-ma ve kawasa
 but 3PL.INAN-all Lord 2SG.give PATH-to.here to people

bená inko #
 be=na inko
 2SG.POS=3PL.INAN.SPC 1PL.EX

'But everything (that we have) is your gift to us your people (litt: all you give to us our people).'

GDao1

Ra dirya Manseren+ roro insandya nkomnaf ve
 ra di-rya Manseren ro insandya nko-mnaf ve
 along place-ANAPH Lord LOC just 1PL.EX-hear as

wós vesren dam banna #
 wós ve- sren dam b=an-na
 word REL- holy very 2SG.POS.GIV-3PL.INAN.SPC
 'Likewise, Lord, in what we have just heard as your very holy words.'

GDao1

Mansern snonkaku véwós vo
 Manseren snonkaku ve-^uwós vo
 Lord human.being REL- speak SIM

verowr *inkoine,* *inkosasar#*
 ve- rowr inko- ine inko- sasar
 VBLZ- hear 1PL.EX- 3SG.SPC-this 1PL.EX- sin
 'Lord we who have spoken and listened, we are sinners.'

GDar

Ra *dirya* *ido* *Mansern* *mankundaw* *bemaf*
ra *di-rya* *ido* Manseren mankund=aw be-maf
 along place-ANAPH THEME Lord self=2SG 2SG.VBLZ-forgive

sasar *varvor* *inkovena +* *mboi* *Mansren...* *kerno*
sasar *varvor* *inko-ve=na* *imboi* Manseren *ker=no*
sin *badness* 1PL.EX-POS=3PL.INAN.SPC but Lord part=nonSP.nonSG

namnis *ve* *rawdowr* *vesren* *bedya* *ido,*
na-mnis *ve* *raw~rowr* *ve-sren* *be=d-ya* *ido*
 3PL.INAN-fit to RED~hear REL-holy 2SG.POS=3SG-SPC THEM

paw *na* *ma kwer* *na* *roro inkosnesna#*
paw *na* *ma k<w>er* *na* *ro inko-sne-s-na*
 2SG.pull 3PL.INAN and <2SG>plant 3PL.INAN LOC 1PL.EX-belly- nonSG.AN-3PL.INAN
 'Given this, Lord, you yourself forgive our sin and badness, but if (certain) parts are in accordance with your holy listening, pull them and plant them in our hearts.'

GDau

Fasama nejadi *amyás* *ma* *nasnai* *ser* *inko* *roro...*
fasama *ne-jadi* *amyás* *ma* *na-snai* *ser* *inko* *ro*
 CONS 3.PL.INAN-become torch and 3PL.INAN-shine support 1PL.EX LOC

marandán *inkovena* *ro* *fyór* *inkoisya*
m~aran~rán *inko-ve=na* *ro* *fyór* *inko-is-ya*
 RED~walk 1PL.EX-POS=3PL.INAN.SPC LOC part 1PL.EX-PRED-that

nkokenm *kaker* *ro* **dunia** *i-ne* *bori#*
nko-kenm *kaker* *ro* *dunia* *i-ne* *bo-ri*
 1PL.EX- live still LOC world 3SG.SPC-this upside-POS.SG
 'So that they will become a torch and support us with their light (lit shine-support us) at our journey as long as we are still living in this world.'

GDax

Sye *Manseren #* *nkosyóm* *nkosandik* *Aw*
syé Manseren *nko-syóm* *nko-sandik* *Aw*
 O Lord 1PL.EX-homage 1PL.EX-praise 2SG

snar *roro minggu swáf* *anine ...*
snar *ro* *minggu swáf* *an-i-ne*
 because LOC week distance GIV-3SG.SPC-this

nkosun roro ras papups ine
 nko- sun ro ras pa~pups i-ne
 1PL.EX- enter LOC day RED~last 3SG.SPC-this

kukr aski roro jemaat banine #
 kukr aski ro jemaat b=an-i-ne
 with safety LOC parish POS.2SG=GIV-3SG.SPC-this

'O Lord, we bring homage and praise to you, because in this (past) week, we have entered this last day, with safety in this parish of yours.'

GDaz

Manseren minggu vebabo ine ... nkorir k~ap~aper⁵
 Manseren minggu ve- babo ine nko- rir k-ap~apr
 Lord week REL- new 3SG.SPC-this 1PL.EX- let.loose RED~fold

i mufa ... mám wark warga jemaat besine
 i mufa mám wark warga jemaat be=s-i -ne
 3SG PATH-to.there 2SG.see guard member church 2SG.POS=3PL.AN-SPC-this

rándak roro swan ira isofroro sup ine
 rándak ro swan i -ra isofro sup i-ne
 beginning LOC sea 3SG -sea until land 3SG.SPC-this

'Lord, this new week, we let loose of it while it is folded (and hand it over) towards you, look after these church members of yours, from the sea seawards up till this land here.'

⁵ The use of epenthetic *e* in non-prepausal position is remarkable. It might be a reflection of an old formula initiated by the Dutch who used *e* in the spelling, and probably also in pronunciation when reading aloud (cf. the spelling of *e* in Van Hasselt, and the New Testament of 1990).

APPENDIX B: OVERVIEW OF RECORDINGS

a = audio recording, *v* = video, *w* = only written. The third column usually refers to the number of minutes recorded, but cursive writing refers to the number of pictures or scenes. Place refers to place of residence. A question mark indicates uncertainty with respect to the just preceding information. The sign + refers to an age of above 50, +- to 35-55 and - to 17-35 years of age (I have no recordings of younger people).

Code	Type	tm	Informant	Place	Short description / remark
AA <i>a</i>	exposition	3	Jafeth Ap ♂+-	Wardo	exposes on traditional wedding
AK <i>a</i>	conversation	5	Herman Kafiar ♂+ Ibu Kafiar ♀+-	Myosbefondi	
AL <i>v</i>	exposition	8	Jafeth Ap ♂+-	Yomdori	exposes on land problems
AS <i>a</i>	speech	8	Jafeth Ap ♂+-	Yomdori	introduces researcher to inhabitants of the village Sopen
AT <i>v</i>	exposition / description	20	Yoel Awak ♂+-	Yomdori	shows around in garden
AV <i>v</i>	song	3	<i>writer unknown</i>	Wardo	about longing for <i>koreri</i> ('heaven'), sung by adolescents, Wardo
BM <i>a</i>	exposition / origin village	8	Maurits Yembise ♂+	Wardo	origin of Wardo, role own clan
BV <i>v</i>	speech	13	Chris Padwa ♂+ Marten Marisan ♂ +-? Weyai ♂+- Weyai ♀+-	Biak kota Biak kota? Biak kota Biak kota	representative of bridegroom's family asking parents-in-law for the hand of bride
CSP <i>a</i>	description (film scenes)	46	Pontinatus Womsiwor ♂-	Yomdori	description of film scenes showing complex events involving causation ¹
CSY <i>a</i>	description (film scenes)	46	Yoel Awak, ♂+-	Yomdori	
CB_P <i>a</i>	description (film scenes)	46	Pontinatus Womsiwor ♂-	Yomdori	description of film scenes showing 'cutting and breaking' ¹
CB_J <i>a</i>	description (film scenes)	46	Yoel Awak ♂+-	Yomdori	
CB_T <i>a</i>	description (film scenes)	46	Timothius Yembise ♂ +	Wardo	
CP <i>a</i>	short story, animals	2	Chris Padwa ♂+	kota	on fish and octopus
DA1 <i>a</i>	speech	9	Krei ♂+-	Sarwa	live recording at trad. wedding
DA2 <i>a</i>	speech	5	Nicolas Adadikam ♂+-	<i>unknown</i>	live recording at trad. wedding
FA <i>v</i>	description / narrative	4	Ruth Mandowen ♀+(-?)	Yomdori	picture book on frog (Mayer 1994)
FB <i>v</i>	song	1	<i>writer unknown</i>	<i>unknown</i>	religious. Adolescent male singers from Yomdori
FF <i>v</i>	description / narrative	5	Fernando Rumbewas, ♂-	Yomdori ²	picture book on frog (Mayer 1994)
FP <i>v</i>	description / narrative	6	Pontinatus Womsiwor ♂-	Yomdori	
FY <i>v</i>	description / narrative	7	Yoel Awak, ♂+-	Yomdori	
GA <i>a</i>	description (photographs)	71	Jafeth Ap ♂+-	Yomdori	
GB <i>v</i>	exposition / conversation	10	Timothius Yembise ♂+ Melchi ♂+-	Wardo	
GD <i>v</i>	prayer	4	Demianus Andarek ♂+	Yomdori	live recording in church
GT <i>a</i>	description (photographs)	71	Timothius Yembise ♂+	Wardo	descriptions of drawings of objects in different locations
GY <i>a</i>	description (photographs)	71	Yoel Awak ♂+-	Yomdori	
GS1 <i>a</i>	exposition	2	Beatrix Awakon ♀+	Sowek	on earthquake of 1996
GS2 <i>a</i>	exposition	3	Yusuf Baisenem ♂+	Sowek	on earthquake of 1996
HK <i>v</i>	short story	4	Pontinatus Womsiwor ♂-	Yomdori	killing of dog that protected child
HP <i>v</i>	conversation	20	Martha Mansawan ♀+- Kamberok Padwa ♂- Ludia ♀- mother Mansawan ♀+ Chris Padwa ♂+	kota	80% local Malay, transcribed, but not used in thesis.
II <i>v</i>	song	2	Isaak Awak (writer) ♂ +-?	West Biak	adolescent singers from Yomdori
IM <i>v</i>	short story	3	Sepianus Andarek, ♂+-	Wardo	couple taking care of small bird
KA <i>a</i>	exposition	3	Engelina Krei ♀-	Wardo	tells while preparing pick nick

¹ On the basis of films from CD-manual by Steve Levinson and Nick Enfield (2001), cf. section 1.4.2.

² Lived in Yomdori for most of his life, moved to the island Numfor a few years ago

³ On the basis of a picture book by Bowerman (*unknown date*), cf. section 1.4.2.

Code	Type	tm	Informant	Place	Short description / remark
KB <i>w</i>	song	-	Sam Kapisa (writer) ♂+-	<i>unknown</i>	<i>taken from songbook, no recording</i> ⁴
KG <i>a</i>	exposition	5	Mesak Fakdawer ♂+-	Karnindi	on recent history of Karnindi
KK <i>a</i>	song	1	<i>writer unknown</i>	<i>unknown</i>	song about short story RV4
KM <i>a</i>	sermon	4	<i>name unknown</i> ♂+	Myosbefondi	live recording in church
KN <i>a</i>	song (<i>wor</i> , traditional)	2	group Mandenderi ♂+	Mandenderi	
KO <i>a</i>	origin story, village	24	Sermumes ♂+	Korem	on the origin of Korem
LS <i>v</i>	song	3	Awak (writer) ♂ (+?)-	West Biak	songs about short story SK
KS <i>v</i>	short story, animals	6	Susanna ♀+-	Wardo	monkey and crocodile quarrelling
MB1 <i>a</i>	short story, animals	2	? ♂ (+?)-	Myosbefondi	on fishes having meeting cf MB2
MB2 <i>a</i>	short story, animals	8	Chris Padwa ♂+	Ridge (kota)	same as MB2
MB3 <i>a</i>	joke	3	? ♂ (+?)-	Myosbefondi	same as MT, on pig in back in taxi
MB4 <i>a</i>	joke	5	? ♂ (+?)-	Myosbefondi	on a quarrel in church at Christmas
MI <i>v</i>	short story, animals	11	Pontinatus Womsiwor ♂-	Yomdori	snake and chicken
ML <i>a</i>	exposition	3	Marten Kafiar ♂-	Myosbefondi	personal history
MM <i>a</i>	myth	30	Efraim Marien ♂+	kota	on the hero Manarmaker
MS <i>v</i>	myth	36	Marinus Wanma ♂+	Sopen	on the hero Manarmaker
MT <i>a</i>	joke	2	Timothius Yembise ♂+	Wardo	same joke as MB3
MW <i>v</i>	short story, animals	2	Miriam Sada ♀+-	Wardo	explains why fish has eyes on back
MY <i>v</i>	short story	1	Emma Adadikam ♀+-	Wardo	wife visiting husband in heaven
OH <i>a</i>	joke	3	Timothius Yembise ♂+	Wardo	on man from land going to the sea
OJ <i>a</i>	description (photographs)	68	Yoel Awak ♂+-	Yomdori	descriptions of photographs showing objects in different locations ⁵
OP <i>a</i>	description (photographs)	68	Pontinatus Womsiwor ♂-	Yomdori	
OS <i>a</i>	song	3	<i>writer unknown</i>	<i>unknown</i>	sung by Jafeth Ap, ♂+-, about longing back home
OT <i>a</i>	description (photographs)	68	Timothius Yembise ♂+	Wardo	see OJ,OP
PD <i>v</i>	sermon	6	Demianus Andarek ♂+	Yomdori	live recording in church
PM <i>a</i>	short story, animals	6	Cornelis Mnsen ♂+	kota	teacher and tiger
RA1 <i>a</i>	origin story, clan	5	Samuël Rumaikew ♂+-	kota (or. Wari)	origin of Wari, 2 clans fight
RA2 <i>a</i>	origin story	2	Samuël Rumaikew ♂+-	kota (or. Wari)	morning star visiting the culture hero, cf Manarmaker myth
RE <i>w,a</i>	exposition	4	Timothius Yembise ♂+	Wardo	2 versions of same story about visit to town, one in past, one in future
RI <i>a</i>	radio program	8	Lucas ♂+-	kota	performed conversation about protection of coasts
RF <i>a</i>	song	7	<i>writer unknown</i>	<i>unknown</i>	religious ⁶
RS <i>v</i>	exposition	12	Yoel Awak ♂+-	Yomdori	fictive journey around Supiori
RV1 <i>a</i>	short story	1	Rasarus Kafiar ♂+	Rani-island	fish with red mouth
RV2 <i>a</i>	exposition	1	Sukan Set ♂+	Rani-island	about Japanese in WWII
RV3 <i>a</i>	exposition	2	Kaisiepo ♀+	Rani-island	on personal history
RV4 <i>a</i>	short story	2	Kaisiepo ♀+	Rani-island	heron + other bird on beach
RW <i>a</i>	exposition	7	Timothius Yembise ♂+	Wardo	fictive journey to town and back
SK <i>v</i>	short story	4	Timothius Yembise ♂+	Wardo	three men on a rowing trip
SS1 <i>a</i>	performative / exposition	6	Serwaf ♂ - Serwaf ♀ - Serwaf ♂ - Jafeth Ap ♂+ Neles Wanma ♂+-	Sopen Sopen Sopen Wardo	on cutting sago, kneading sago pulp, and cooking sago
S_T <i>v</i>	description, complex events	105	Timothius Yembise ♂+	Wardo	description of films showing complex events and of pictures referring back to films ⁷

⁴ *Songger berok* (Kapisa 1978), song nr. 65.

⁵ On the basis of a picture book by Bowerman (1999), cf. section 1.4.2.

⁶ Nr. 19 from CD 'music of Indonesia' (Yampolski and Rutherford 1996), by chorus from Sor

Code	Type	tm	Informant	Place	Short description / remark
SW <i>w</i>	sayings	12	Chris Padwa ♂+	kota	12 sayings
TW <i>v</i>	origin story, village	20	Timothius Yembise ♂+	Wardo	on origin of Wardo
VM <i>a</i>	exposition	2	Engelina Krei ♀-	Wardo	on men and women
VY <i>v</i>	speech	25	Yakob Paef ♂+- Selviana Sada ♀+- name unknown ♂+- name unknown ♂+-	<i>all from Wardo / Yomdori</i>	meeting on land problems
WG <i>a</i>	song (<i>wor</i> , traditional)	1	Mesak Fakdawer ♂+-	Karnindi	spontaneously sung, for and about researcher
WM <i>v</i>	song (<i>wor</i> , traditional)	6	Marinus Wanma sings ♂+	Sopen	<i>wor</i> song on Manarmaker myth
WR <i>v</i>	short story, animals	2	Sepianus Andarek ♂+-	Wardo	
WS <i>v</i>	exposition	5	Fransina Yembise ♀+-	Wardo	tells while we watch fishing activities
YE <i>v</i>	exposition	5	Yensenem ♂+	Opyaref?	exposes on personal history
YM1 <i>a</i>	joke	2	Spenyel Krei ♂-	Yembepioper	10 commandments not for minister
YM2 <i>a</i>	joke	2	name unknown ♂ +?	Yembepioper	motor-driver has old woman pay petrol
YM3 <i>a</i>	joke	2	name unknown ♂ +	Yembepioper	boasting about big fish
YR <i>a</i>	sermon	12	Jakob Rumbewas ♂+	Yomdori	live recording in church
YW <i>v</i>	conversation	14	Timothius Yembise ♂ + Burdam ♂ + Fransina Yembise ♀+- Maria Yembise ♀- Wilhelmina Mayor ♀+-	<i>all from Wardo /Yomdori</i>	
ZK <i>a</i>	exposition	6	Marten Kafiar ♂-	Myosbefondi	on seeking sea cucumbers

⁷ On the basis of films on CD-manual by Steve Levinson and Nick Enfield (2001), cf. section 1.4.2.

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SAMENVATTING IN HET NEDERLANDS

Biak, beschrijving van een Austronesische taal van Papoea

Dit boek is een beschrijving van het Biak (of: Biaks), één van de vele talen van de provincie Papoea in Oost-Indonesië. De taal heeft naar schatting ongeveer 70.000 sprekers, waarvan de meesten wonen op de eilanden Biak, Supiori, Numfor of op de naburige Padaido-eilanden. Daarnaast zijn langs de gehele noordkust van de Cenderawasih baai en de Vogelkop Biakse vestigingen te vinden, die in voorgaande eeuwen als Biakse handelsposten zijn gesticht. Het Biaks valt uiteen in verschillende dialecten, die over het algemeen maar weinig van elkaar verschillen. Dit boek concentreert zich op het Biaks zoals dat gesproken wordt in het Westen van Biak, voornamelijk in het dorp Wardo.

Het boek beschrijft achtereenvolgens verschillende gebieden van de Biakse taal. Volgend op de introductie beschrijft hoofdstuk 2 de klankleer. De taal heeft de medeklinkers *b, p, m, β, w, f, d, t, n, s, l, r, j, k*. In deze thesis wordt *β* als 'v' gespeld. De *t* lijkt pas kortere tijd tot de taal te behoren en komt heel weinig voor. De Biakse klinkers zijn *a, e, i, o, u* en hun lange tegenhangers *á, é, í, ó, ú*. De taal heeft een opvallend groot aantal mogelijke clusters van medeklinkers, zowel aan het begin van een lettergreep als aan het eind. Clusters van medeklinkers aan het einde van een woord worden echter vóór een pauze opgebroken door [e], zodat een woord als *ifn* gerealiseerd wordt als [ifen]. Woorden die eindigen op een lange klinker gevolgd door een medeklinker krijgen vóór een pauze een [e] aan het einde van het woord, zodat bijvoorbeeld *wáw* gerealiseerd wordt als [wáwe]. Veruit de meeste Biakse woorden zijn één - of tweelettergrepig. In het hoofdstuk wordt beargumenteerd, dat Biaks geen vastgelegd (i.e. lexicaal gespecificeerd) woordaccent (stress) kent, maar dat woordaccent volgt uit het samenspel van zinsritme en de lengte van de klinkers. Tot slot beschrijft het hoofdstuk een aantal manieren waarop de taal opeenvolgingen van bepaalde klanken vermijdt, en hoe klanken elkaar binnen een woord of op woordgrenzen kunnen beïnvloeden. Ook wordt aandacht gegeven aan speciale klankpatronen binnen liederen. Het hoofdstuk sluit af met een aantal opmerkingen over de in dit boek gekozen schrijfwijze (orthografie).

Hoofdstuk 3 begint met een bespreking van een aantal termen die gebruikt worden in de beschrijving van de morfologie of 'woordbouw'. De rest van het hoofdstuk beschrijft de verschillende woordklassen die in het Biaks kunnen worden onderscheiden. Werkwoorden onderscheiden zich door het feit dat ze verplicht moeten worden gecombineerd met voorvoegsels of tussenvoegsels, die persoon, getal en soms ook geslacht uitdrukken van het onderwerp. Zo kan een werkwoord als *mrán* 'lopen' alleen in een zin functioneren wanneer het bijvoorbeeld wordt vervoegd als *mko-mrán* '2PL -lopen'. Het voorvoegsel *mko-* verwijst naar het onderwerp van de zin, en geeft aan dat dat een 2^e persoon meervoud is, zodat het vervoegde werkwoord kan worden vertaald als 'jullie lopen'. Anders dan werkwoorden kunnen zelfstandige naamwoorden of nomina niet worden vervoegd. Normaliter vormen ze het hoofd van een nominale zin, die vervolgens als argument (onderwerp, lijdend voorwerp, meewerkend voorwerp) van een gezegde functioneert, of als argument van een voorzetsel (zoals bijvoorbeeld in *ve rum* 'naar huis'). Het Biaks kent geen bijvoeglijke naamwoorden, maar bijvoeglijke noties worden uitgedrukt door werkwoorden, zoals in *i-pyum* '3SG-goed'-> 'hij is goed'. De taal heeft een aantal voorzetsels, waarvan een aantal duidelijk verwant is aan een werkwoord van dezelfde vorm. Volgend op de bovengenoemde woordklassen bespreekt het hoofdstuk de overige woordklassen van het Biaks: voornaamwoorden, bijwoorden, voegwoorden, telwoorden, *quantifiers*, vraagwoorden, *topic*-markeerders, tussenwerpsels en uitroepen.

Hoofdstuk 4 vormt een bespreking van het werkwoord. Een hierboven genoemd onderscheidend kenmerk van werkwoorden is dat zij verplicht combineren met een voor – of tussenvoegsel dat het onderwerp uitdrukt. Daarnaast kunnen alleen werkwoorden worden geredupliceerd, volgens patronen die in hoofdstuk 7 worden uiteengezet. Syntactisch vallen werkwoorden uiteen in drie groepen: transitieve (i.e. overgankelijke), ambitransitieve en intransitieve (i.e. onovergankelijke) werkwoorden. Ambitransitieve werkwoorden functioneren soms als overgankelijk, en soms als onovergankelijk werkwoord. Daarbij correspondeert het lijdend voorwerp van het overgankelijke werkwoord met het onderwerp van het onovergankelijke werkwoord. Een voorbeeld van een ambitransitief werkwoord is het werkwoord *krís* 'rollen', dat zowel kan verwijzen naar overgankelijk 'rollen' als naar onovergankelijk 'rollen'. Een aantal overgankelijke werkwoorden kan in principe worden gebruikt in een lijdende vorm (*passive*), maar het dient te worden opgemerkt dat deze 'lijdende vormen' uiterst zeldzaam zijn. Wanneer we kijken naar de vorm van Biakse werkwoorden, valt op dat enerzijds een aantal werkwoorden 'oude' of 'versleten' voorvoegsels bevat van de vorm *m(a)-*, *f(a)-* of *k(a)-*. Daarnaast heeft de taal een aantal voorvoegsels die nog productief gebruikt worden. Allereerst een voorvoegsel *ve-*, dat werkwoorden maakt van stammen die tot een andere woordklasse behoren. Daarnaast een voorvoegsel *far-*, dat wederkerigheid uitdrukt, of uitdrukt dat het onderwerp van het werkwoord *affected* is. Ook maakt de taal gebruik van een voorvoegsel *ák-* 'ook', en van een instrumentaal voorvoegsel *k-*. Het laatste voorvoegsel is historisch verwant aan het werkwoord *vuk* 'geven'. Een bespreking van de ontwikkeling van *vuk* 'geven' tot het instrumentaal voorvoegsel *k-* wordt gegeven in hoofdstuk 10. Hoofdstuk 4 besteedt verder uitgebreid aandacht aan de zogenaamde *postverbs*. Deze *postverbs* zijn elementen die direct volgen op het werkwoord, en meer of minder sterk met het werkwoord verbonden kunnen zijn. Samen met het werkwoord vormen zij een 'verbaal complex'. *Postverbs* kunnen eventueel de valentie van het werkwoord veranderen, in die zin dat ze van een onovergankelijk werkwoord een overgankelijk werkwoord kunnen maken, of andersom. Een voorbeeld van een valentie-veranderend *postverb* is *wark* 'blokkeren'. In combinatie met het onovergankelijke werkwoord *kain* 'zitten' vormt het een overgankelijk verbaal complex *kain wark*, dat kan worden vertaald als '(iets) bewaken door (ervoor) te zitten'.

Hoofdstuk 5 bediscussieert de zelfstandige - naamwoordgroep (*noun phrase*). Een groot gedeelte van alle naamwoordgroepen wordt afgesloten door een lidwoord. Dit hoofdstuk concentreert zich op die categorieën die door dit lidwoord (kunnen) worden uitgedrukt, namelijk specificiteit en gegevenheid (*givenness*). Er wordt betoogd dat 'specifiek' moet worden opgevat als 'bestaand als een identificeerbare entiteit in de *world of discourse* (i.e. de wereld die door het spreken wordt opgeroepen)'. Het hoofdstuk laat zien hoe vraagzinnen, opdrachtzinnen (imperatieven) en ontkennende zinnen elk hun eigen taalspecifieke invulling van het begrip 'specificiteit' met zich meebrengen. Hoofdstuk 5 sluit af met een bespreking van ingebedde zinnen, en met een beschrijving van de manieren waarop naamwoordgroepen kunnen worden gecombineerd.

Hoofdstuk 6 bespreekt bezitsrelaties. De taal maakt onderscheid tussen vervreemdbaar en onvervreemdbaar bezit. Vervreemdbaar bezit wordt uitgedrukt door het naast elkaar plaatsen van een naamwoordgroep die verwijst naar de bezitter en een naamwoordgroep die verwijst naar het bezetene. De laatste naamwoordgroep wordt dan afgesloten door een complex lidwoord, dat persoon, getal en geslacht uitdrukt van zowel de bezitter als het bezetene. Alhoewel de bezitter meestal aan het bezetene vooraf gaat, komt de omgekeerde volgorde ook voor. Onvervreemdbaar bezit daarentegen wordt uitgedrukt door voor - of achtervoegsels op

het bezetene. De groep van onvervreemdbare zelfstandige naamwoorden valt in drieën uiteen. Allereerst (zelfstandige naamwoorden die verwijzen naar) lichaamsdelen, dan verwantschapstermen en tot slot woorden die verwijzen naar een locatie. Elk van deze groepen heeft een ietwat andere vervoeging.

Hoofdstuk 7 besteedt uitgebreid aandacht aan de reduplicatie van het werkwoord en bespreekt daarvan zowel de vormelijke als de functionele kant. Bij verbale reduplicatie (i.e. reduplicatie van het werkwoord) correspondeert een deel van de laatste lettergreep van de basis met een abstract patroon van de vorm Ca of CaC in de geredupliceerde vorm, waarbij C staat voor een consonant (medeklinker). Zo heeft een woord als *fasos* de geredupliceerde tegenhanger *fasasos*, en *marisn* als tegenhanger *marasrisn*. Waar in het huidige Biaks reduplicatie betrekking heeft op het laatste deel van de basis, had het in een eerder taalstadium vermoedelijk betrekking op het eerste deel. Geredupliceerde werkwoorden functioneren vaak als zelfstandig naamwoord, of als werkwoord met een duratieve (duur aanduidende) of iteratieve (herhaling aanduidende) betekenis. Vaak zijn deze werkwoorden met duratief-iteratieve betekenis minder transitief (overgankelijk) dan de niet geredupliceerde tegenhangers. (Zoals betoogd in hoofdstuk 4, is het verschil tussen transitief (overgankelijk) en overgankelijk (intransitief) niet absoluut, maar graadueel).

In hoofdstuk 8 wordt aandacht besteed aan de structuur van de zin (*clause*) en aan grammaticale relaties. Het eerste deel van het hoofdstuk houdt zich bezig met de werkwoordszin of *verbal clause*, terwijl het tweede gedeelte zich richt op de zelfstandig-naamwoordszin of *nominal clause*. In het eerste gedeelte worden eerst de grammaticale rollen van onderwerp (subject) en lijdend voorwerp (object) besproken. Daarop volgt een bespreking van andere semantische rollen als *destination*, en *beneficiary*. Als een soort van intermezzo volgt een gedeelte dat specifiek handelt over de status van de *noun phrase* (zelfstandige naamwoordgroep) die aan het werkwoord vooraf gaat. Deze NP verwijst normaliter naar dezelfde entiteit als het onderwerp, maar kan ook coreferent zijn met het lijdend voorwerp. In het laatste geval wordt het lijdend voorwerp meestal óók uitgedrukt op zijn gewone of 'canonieke' positie, volgend op het werkwoord. Er wordt betoogd dat de preverbale NP een zinsinterne (*clause-internal*) positie bekleedt die is gereserveerd voor topics, en moet worden onderscheiden van de daaraan voorafgaande zinsexterne (*clause external*) *frame*-positie. Deze *frame*-positie kan niet alleen door NP's worden bezet, maar ook door een gehele zin (*clause*). Om die reden wordt er pas verdere aandacht aan besteed in hoofdstuk 10, dat gewijd is aan de combinatie van zinnen. Het tweede gedeelte van hoofdstuk 8 handelt over nominale zinnen. Een nominale zin bestaat minimaal uit de directe opeenvolging van twee nominale zinsdelen (NP's). Meestal echter worden de twee zinsdelen door een koppelwoord verbonden, of door predicatieve voornaamwoorden die van het koppelwoord zijn afgeleid. Het hoofdstuk sluit af met een bespreking van locatief-existentiële predikaten, die qua vorm nauw verwant zijn met de zojuist genoemde predicatieve voornaamwoorden.

Hoofdstuk 9 is in zijn geheel gewijd aan verschillende manieren waarop Biakkers verwijzen naar de plaats van entiteiten in hun omgeving en naar de richting waarin deze bewegen. Voor de verwijzing naar ruimte en beweging heeft de taal een indrukwekkende verzameling van formatieven tot haar beschikking: niet alleen demonstratieven, maar ook *motion markers*, die de bewegingsrichting van een entiteit (de Figure) ten opzichte van een bepaald Relatum uitdrukken en *directionals* die de positie van de Figure langs verschillende assen uitdrukken, zoals een hoog - laag, een in - uit, een zeewaarts - landwaarts, of een voor - achter as. Al deze formatieven worden gebruikt als deel van lidwoorden of als deel van bijwoorden.

Hoofdstuk 10 bespreekt tot slot verschillende combinaties van zinnen (*clauses*). Opvallend in het Biaks is het frequente gebruik van voegwoorden, als ook de posities waarin deze worden gebruikt. Een aantal voegwoorden kan zowel voor als achteraan in de zin gebruikt worden, terwijl andere alleen aan het einde van de zin voor kunnen komen. Het hoofdstuk bespreekt verschillende typen zinscombinaties en bespreekt ze in de volgorde van meest naar minst geïntegreerd. Besproken worden onder andere complementszinnen, relatieve zinnen en adverbiale zinnen. Een aparte sectie is gewijd aan causatieve constructies, terwijl het hoofdstuk afsluit met een bespreking van instrumentale constructies. Met uitgebreide voorbeelden wordt aangetoond hoe het werkwoord *vuk* 'geven', gebruikt als deel van een instrumentele constructie met twee zinnen, zich heeft ontwikkeld tot het instrumentele voorvoegsel *k-*.

Het boek wordt afgesloten met een aantal teksten van verschillende genres en een overzicht van alle relevante opnamen.