A Grammar of Moskona:
An East Bird's Head Language
of West Papua, Indonesia

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A GRAMMAR OF MOSKONA:
AN EAST BIRD'S HEAD LANGUAGE
OF WEST PAPUA, INDONESIA

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Abbreviations and conventions of presentation

Abbreviations used in glosses:

BEN	benefactive	NR	nominalizer
C	consonant	NP	noun phrase
CAUS	causative	NUM:1, NUM:2	numeral class one,
CST	contrastive		numeral class two, etc.
CTP	complement-taking predicate	old.	older
DEON	deontic	PGE	paragoge
DNR	deictic nominalizer	PL	plural
DSJ	disjunctive conjunction	PROT	protesting
DU	dual	Q	polar question
DUR	durative	QUAN	quantifier
e.g.	for example	RC	relative clause
EMP	emphatic	RECIP	reciprocal
ENUM	enumerative conjunction	RED	reduplicant
FOC	deictic focus marker	REL	relativizer
i.e.	that is	sib.op.s.	sibling opposite sex
INTS	intensifier	sib.s.s.	sibling same sex
IRR	irrealis	s.o.	someone
k.o.	kind of (something)	s.t.	something
lit.	literally	SVC	serial verb construction
LOC	generic locative	THM	thematic marker
NEG	negative	V	vowel
NEG.DEON	negative deontic	VIS	visible
NONVIS	nonvisible	yg	younger

Pronominal prefixes:

1SG	first person singular
2SG	second person singular
3SG	third person singular
1PL	first person plural
2PL	second person plural
3PL	third person plural

Pronominal circumfix:

RECIP	reciprocal (object)

Pronouns:

1,2,3SGPOS	first,second,third person singular possessive
1,2,3DUPOS	first, second, third person dual possessive
1,2,3PLPOS	first, second, third person plural possessive

1,2,3SGRX	first, second, third person singular reflexive
1,2,3DURX	first, second, third person dual reflexive
1,2,3PLRX	first, second, third person plural reflexive
EXPN	exclusive pronoun

Symbolization used:

[ ]	phonetic realization
	in free translation: contextual information inserted for clarity
	in examples: syntactic units (e.g. relative clauses, complement clauses)
/	short pause
/ /	phonemic representation
´	accented syllable
.	syllable boundary
	in glosses: connecting a multi-word gloss
-	morpheme boundary
=	clitic boundary marker
ø	a gap or omitted element (e.g. in relative clause)
' '	in examples: free translation or gloss in English
*	unacceptable or agrammatical form
>	reduces to or becomes
<	derives from
~	varies with
?	in glosses: meaning unknown
( )	implicit material

Vernacular data is given in italics (e.g. *Dif di-ejeka gug bua*). Glosses of morphemes in the text and in the free translation of examples are set off in single quotes, (e.g. 'man'). Although an attempt has been made to make the free translations as idiomatic as possible, sometimes the English gloss has been forced to reflect the Moskona structure (e.g. *dif dadin digak* 'I my leg', a structure which may indicate a former thematization strategy.). Non-translation glosses (e.g. 'k.o. tree') are not treated differently than translations. In a few instances where the meaning of the morpheme is unknown or at best only postulated, a question mark '?' is used for the gloss. For morphemes having more than a single word gloss, the words are joined by a period to indicate the unitary nature of the gloss (e.g. 'to.and.fro'). Bound morphemes (e.g. affixes) are indicated by an attached hyphen (e.g. –*ima* or *no-*). Some pronouns have been glossed with numbers and letters (e.g. 3SGRX for third person singular reflexive) rather than with context specific glosses, such as 'himself', 'herself' or 'itself'. The English sense of the gloss is brought out in the free translation following the example.

In vernacular examples, commas are used to indicate a non-final pause and a period, a final pause. Use of exclamation marks (!) and question marks (?) indicate illocutionary force, but not intonation in an utterance.

Sections, tables, figures are numbered in accordance with their placement in chapters (e.g. Table 2.5 indicates the table occurs in chapter 2 and is the fifth table in that chapter). Cross references are given in parenthesis with the addition of the symbol "§" (e.g. §4.5). Example numbers recycle to number one at the beginning of each chapter, but footnotes are numbered continuously throughout the grammar.
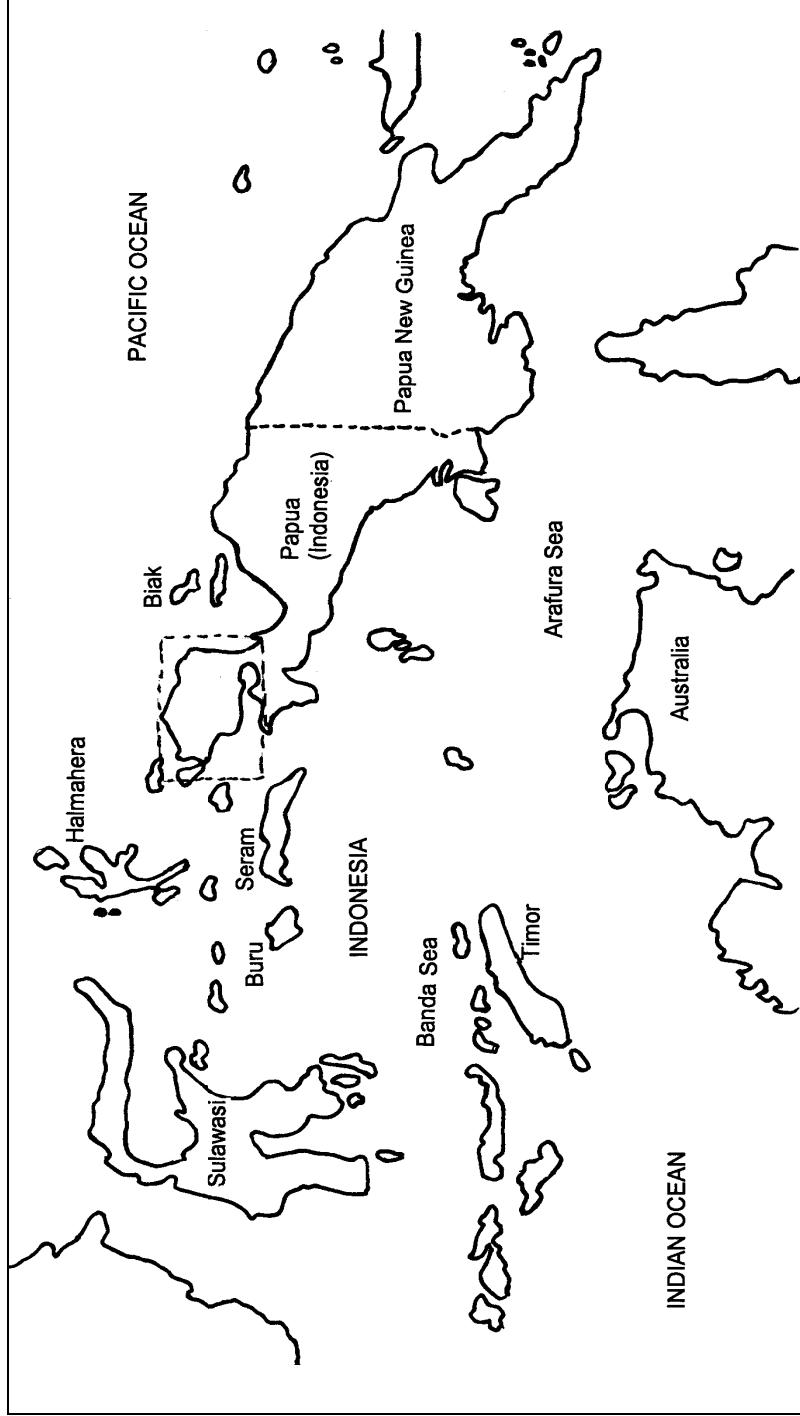
Map 1. Location of Moskona area in Indonesia
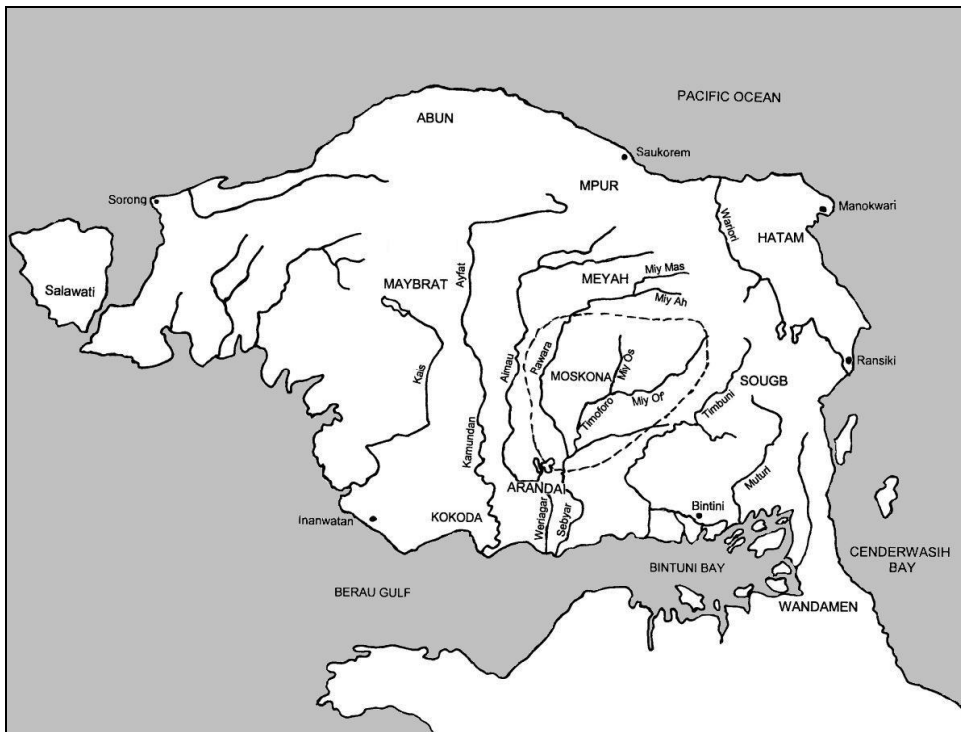
Map 2. The area of the Moskona in the eastern Bird's Head with surrounding
language groups.
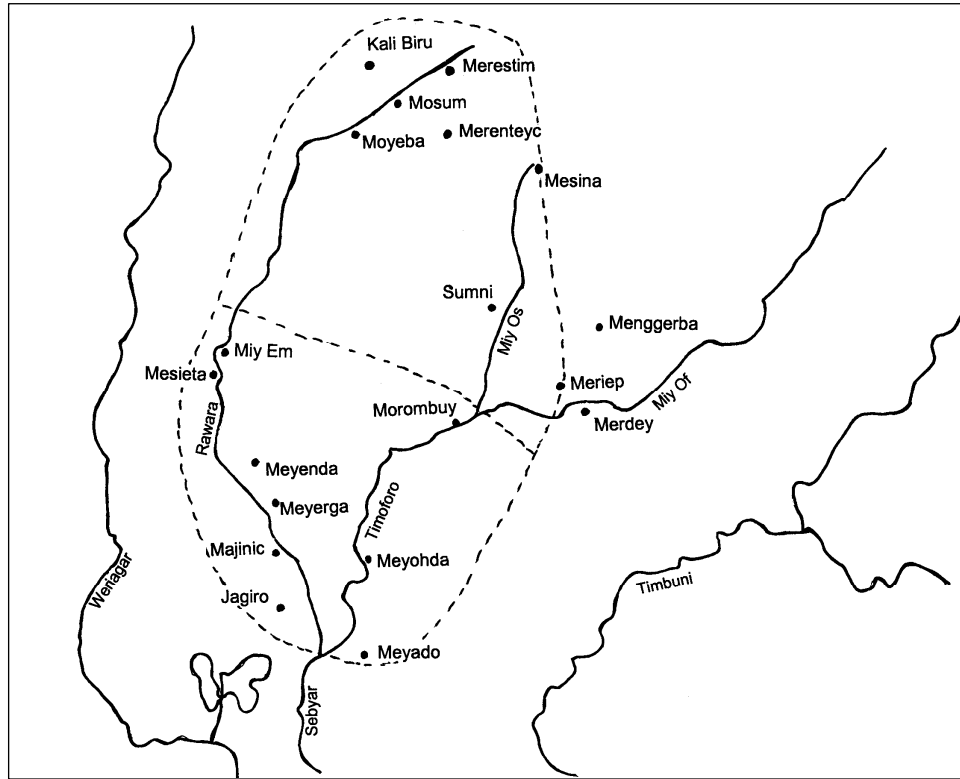
Map 3. Location of major villages and approximate dialect areas.

Chapter 1
Introduction

1.1 Introduction to the study

Moskona is a language spoken in the eastern Bird's Head peninsula of the island of New Guinea (See Map 1). Although contact with the outside world has been established for around fifty or sixty years, a comprehensive grammar of the language has not yet been done. Thus, this presentation is the first extensive grammatical description of the Moskona language.

This chapter presents the theoretical framework of the study (§1.1.1), a brief description of how field work was conducted (§1.1.2) and an introduction to the Moskona people (§1.2), including their geographic location, political administration, history, culture and worldview. A brief discussion of the language classification (§1.3.1) and typology (§1.3.2) concludes this chapter.

1.1.1 Theoretical framework and terminology

The purpose of this study is to present a detailed linguistic description of the phonology, morphology and syntax of the Moskona language. It does not attempt to prove or test any specific grammatical theory, nor does it aspire to explain how the language has changed to reach its current form. The description uses what Dryer (2006) calls "basic linguistic theory", using more or less theory-neutral terms and attempts to describe Moskona in terms of itself, rather than by means of any formal or theoretical model. Basic linguistic theory, which draws on earlier traditions of descriptive theory, adds those concepts drawn from typology and various other traditions as needed to describe specific languages, and attempts to use terminology which is familiar to a wider group of readers.

In writing the morphosyntactic parts of this grammar, a number of sources gave both major and minor insights about structures and functions. These include Describing Morphosyntax (Payne 1997), Syntax (Givón 1984) and The Papuan Languages of New Guinea (Foley 1986), among many others. A large amount of insight with regard to function vs. form was gleaned from The Theory of Functional Grammar (Dik 1997a) in distinguishing categorical terms and functional terms. Definitions regarding categorical terms, such as noun, verb, adverb, etc. were drawn from works such as 'Parts of Speech Systems' (Schachter 1985) and Describing Morphosyntax (Payne 1997). The terminology for clausal structure and constituents was drawn from Functional Syntax and Universal Grammar (Foley and Van Valin 1984), in which the predicate, defined as the nucleus of a clause, plus its arguments comprise the clause core. The (core) arguments are those elements which have a grammatical relation to the predicate, that is the subject and object; all other nominal elements which do not have a grammatical relation are termed peripheral arguments.

1.1.2 Fieldwork and data collection

Research for this grammar was conducted during the years 1995 to 2001 under the auspices of a cooperative agreement between SIL International and the Department of Social Affairs Indonesia. The initial purposes of the project were to provide resource materials in the Moskona language for education in health topics, for the production of books and for the promotion of literacy. The primary village area where I stayed was Moyeba, but I was able also to work closely with speakers from the Meyerga area.

Fieldwork consisted of collecting texts on various topics, such as legends or former customs and practices, from speakers of ages varying from 20 to 35 years old who originated from different areas. All narrators were male. These texts were recorded, then transcribed with the aid of native speakers, forming the basis for discussion of lexical items or structures observed in texts. These discussions frequently led to other lexical items, structures or features which had not yet been observed. Discussion and translation of texts was done utilizing both Moskona and Papuan Malay. One outcome of the transcription discussions was the development of a glossary, having approximately 2,000 entries, most of which were illustrated with native-authored sentences.

The sources for examples used in this grammar are from transcribed texts, symbolized with a text number, such as [T2], the glossary [D], some translated materials [TT] and a very few items from elicitation [E]. Translated materials include health and community development booklets, produced in collaboration with native speakers, and the Moskona New Testament. A list of texts used as resources for this grammar are given in Appendix C. However, only texts numbers one through ten are included in the texts in Appendix B.

1.2 The people and area

1.2.1 Geographic setting

The Moskona language is spoken in an area to the north and south of the latitude 1º 30'S and east and west along the longitude 133º E in the Bird's Head (*Kepala Burung*) or Doberai peninsula on the island of New Guinea (See Map 2). The language area, with settlements located along the Rawara and Timoforo Rivers and their tributaries, extends south from the southern hills (elev. 3000 ft) of the Arafak mountains toward the coastal plain (elev. 500 ft.) (See Map 3). The highland terrain is characterized by rugged mountain ranges, where the tree line is around 4000 m. (13,000 ft). The lowlands evidence dense tropical rainforest and an extensive system of rivers and streams. The climate of the area exhibits high temperatures, ranging 23C to 30C degrees in coastal lowlands and 18C in the highlands. Humidity is high throughout the year, averaging more than 85% in lowlands. The wet season, corresponding to the time of the northern prevailing winds, extends from October to March, while the dry season, corresponding to the time of the southeastern trade winds, extends from March to October. Rainfall totals exceed 3,000 mm in an average year.

1.2.2 Political administration

From 1803 to 1949, the Indonesian archipelago was administered by the Dutch as part of the Dutch East Indies (*Hindia Belanda*) with a slow and gradual expansion of government presence and control over the islands. Expansion into West New Guinea occurred mostly in the early twentieth century, as between 1898 and 1901 officers of the Dutch East Indies were stationed in Manokwari, Fakfak and Merauke. Briefly, from 1942 to 1944, when the Japanese controlled the Dutch Indies, a division of the Japanese navy administered eastern Indonesia. After Indonesian independence in 1949, the territory in Western New Guinea remained under Dutch control and was designated Netherlands New Guinea. In 1962, after skirmishes between Indonesian and Dutch troops, Western New Guinea was placed under United Nations administration, but in 1963, administrative control was handed over to the Indonesian government. Then in 1969, West New Guinea was incorporated into Indonesia as its twenty-sixth province and named Glorious Irian (*Irian Jaya*). In 2004, West New Guinea was divided into two provinces. The western half, including the Bird's Head, Bird's Neck and Fak-Fak became the province of West Papua (*Papua Barat*). The eastern half became the province of Papua. These provinces are divided administratively into regencies (*kabupaten)*. Each regency is subdivided into many sub-districts *(kecamatan/distrik*) which are headed by a civil servant called a *camat*. At the lowest tier of the administrative hierarchy are the villages (*desa*), headed by a village head (*kepala desa)*. The Moskona language is spoken in West Papua Province within Bintuni Bay Regency (*Kabupaten Teluk Bintuni)* in Northern Moskona District *(Distrik Moskona Utara*), Southern Moskona District *(Distrik Moskona Selatan*) and Merdey District *(Distrik Merdei*).

1.2.3 Demography

The current population of West Papua Province with its capital of Manokwari, (in the western half of West New Guinea) is estimated to be around eight hundred thousand. However, determining the population of language groups with a population scattered over a large and difficult terrain can only be done by estimate. Miedema and Reesink (2004:32) estimate the size of the Moskona population to be 5,000; a survey done by SIL in 1996 estimates approximately 8,000; and Silzer and Clouse (1991) estimate it to be around 6,000.

1.2.4 History

Although the earliest evidence of coastal settlements in New Guinea dates from around 30,000 to 25,000 BP (White 1984:100), the pre-history of the peoples of the Bird's Head is vague at best. Much of current reconstruction of pre-history is based on accounts of events occurring in the last two hundred years, events which led to the migration and settlement of the various ethnic groups in the Bird's Head (Miedema and Reesink 2004).

According to Pans, quoted in Haenen (1998:238), it is likely that the Moskona originated in an area where the Rawara and Timoforo Rivers come together and flow into the

Sebyar. The most likely cause of the northward migration of the Moskona (and a number of other people groups) to their current locations was raiding and slave-trading along the Sebyar River (Miedema 1994:127, Haenen 1998:238). Evidence of slave trading was observed in the Berau Bay as early as 1663 (Haenen 1998:236), and raids for slaves along the Sebyar River went as far north as Jagiro in Moskona territory (Haenen 1998:237). Although some slave trading occurred on the north coast of the Bird's Head, it occurred to a greater degree on the south coast in the areas of the Kamundan, Sebyar and Weriagar Rivers (Miedema 1994:123). Foreign valuables, such as eastern cloth (*kain timur*), were bartered for tobacco, birds of paradise and slaves. The exportation of slaves continued until the end of the nineteenth century when it was formally abolished, but slave trading in the interior continued until about 50 years ago.

1.2.5 Cultural setting

Traditionally, the Moskona people live in semi-nomadic communities with villages and gardens on ancestral lands. Smaller settlements are patrilocal, composed of three to five houses made up of single extended families. Larger villages, located in river valleys, may be composed of up to 50 houses.

Agricultural production is subsistence level, done using low intensity slash-and-burn methods, cultivating an area until the soil is exhausted, then moving to another area, which allows the former area to grow back into rain forest. After the initial clearing of a garden area by men, the daily work of the garden is the primary responsibility of women, and at a very young age, girls begin to help their mothers. Gardens provide sweet potatoes, cassava, taro, as main crops, supplemented by various greens, corn, cooking bananas, as well as papaya, bananas, pineapple, pandanus and various other tropical fruits. In areas of lower elevation (below 1000 m), sago is a staple. Their diet is augmented by a small amount of animal protein in the form of wild pigs, deer, small marsupials and fish from nearby forests and streams. Pigs are domesticated, but do not significantly impact the diet of the people, as pigs are traditional wealth, serving as a primary resource for brideprice or payment of fines. Pigs are typically slaughtered only at feasts, as the owner is discharging some debt.

Moskonas live in stilt houses, approximately a meter to a meter and a half above the ground. Houses in larger villages, such as villages which have airstrips, may be built of rough boards, similar in construction to board houses built in towns, or may be made of poles with sheets of bark lashed onto a pole frame. In smaller more traditional settlements, stilt houses are constructed entirely of poles and bark, and may be up to two meters off the ground. In former times, the preferred form of single family dwelling was a house built up in a tree, as the height afforded by the tree made it very secure, primarily due to its inaccessibility. In some very remote places (it is reported), tree houses are still used. Large notched poles or ladders constructed of poles are utilized for access.

The economic system is an informal one, based on symmetrical reciprocity, that is, there is an expectation that whatever indebtedness a person incurs will be discharged through the repayment of goods or labor at a later time. Accruing high status involves a build up of indebtedness to oneself through the supplying of material possessions or services.

A salient feature of the culture is the use of eastern cloth (*kain timur*), a type of coarsely woven cloth, whose functional or prestige value bears little relation to its intrinsic value as a textile. *Kain timur*, which had been used as a barter item for slaves for several hundred years, has now become an obligatory component of brideprice, as well as for the payment of fines and contract killings. As the demand for *kain timur* increased, female children, usually around six or seven years old, referred to as a "barter child" (*medes)*, were traded to obtain *kain timur*. The *medes* went to live with the clan or family group which had traded *kain timur* for her, and when she married, that clan received the brideprice. Although *kain timur* is still required as part of the brideprice, the trading of girls to obtain *kain timur* is no longer practiced.

Artistic expression is seen in body adornment rather than the decoration of artifacts, such as clay cooking pots or griddles, which are solely utilitarian. The body decoration may be temporary, such as feathers or brightly colored leaves worn in the hair or around the arms, or it may be permanent, such as tattoos, forming patterns on the person's face. Around the time of puberty, tattoos are made on cheeks and forehead through the imbedding of pieces of blue organic material in small slits made in the skin. The organic material dyes the area around the slit, and when the dye material is removed, the blue color remains. Both men and women receive tattoos.

1.2.6 Traditional beliefs and world view

The traditional belief system of the Moskona is animism, involving the belief that areas in the vicinity of specific trees, streams or pools are inhabited by malevolent spirits, which could in some way inflict harm on anyone who infringed on their territory. In the past, food offerings or animal sacrifices were made to the spirits of these locations.

Their world view is based on belief in a spiritual universe in which manipulation of the physical world is accomplished through the use of spiritual power. Spiritual power may be gained through ritual incantations or through possession of an object or substance which has inherent spiritual power. Ritual incantations are used to imbue inanimate objects with power in order for them to be used in the performance of an activity, such as an attack (e.g. a large seedpod which has been given power causes the people inside a house to fall into a deep sleep, so that in an attack they will not fight back.) Objects which have inherent spiritual power, such as the soil from the land of the dead, may be carried in a small pouch and concealed on one's person. (The land of the dead is a place high up in the mountains above the tree line. As a result of its inhabitation by spirits, the land (i.e. dirt) of this area is believed to have spiritual power. Those desiring spiritual power travel to that area to bring back some of its soil.) Shamans (*muysa*) may use traditional herbs or may use this power for healing.

Their traditional belief system includes the belief that the spirits of dead ancestors survive death and may either go to the land of the dead or may linger in the forest near villages. These ghosts (spirits of the dead) are said to trip people traveling alone in the forest, taking their souls when they fall. Children are frequently cautioned that the spirit of a grandparent or another ancestor who is lonely may call out their name in the middle of

the night. If they answer, then in a matter of days, they will die and their spirit will join that of the grandparent who called to them.

At present, Moskonas generally consider themselves Christians, and small churches may be found in a large number of the more populous villages. Most Moskonas belong to either the Evangelical Alliance Church (GPKAI) or the Catholic Church.

1.2.7 Kinship

The Moskona kinship system is a modified Hawaiian system with kinship terms, distinguishing two generations. Ego distinguishes relatives on the basis of gender and generation, but also distinguishes seniority in sibling terms. There is an additional term extending two generations above Ego and a term one generation below. The term two generations above Ego is the reciprocal term *medina* 'grandparent/grandchild', used by Ego and a grandparent. It may also be applied to ancestors beyond grandparents' generation. The term one generation below indicates 'child'. Sibling terms are classificatory, that is children of father's siblings have the same terms as Ego's siblings, 'brother' and 'sister'. Female siblings of Ego's mother and father are referred to as *mosu* 'mother', but only the male siblings of Ego's father are referred to as *mekew* 'father'. The male siblings of Ego's mother are referred to in a phrase which means 'mother's brother', a term for brother which also includes an indication of seniority. Seniority for siblings one generation above Ego may be expressed (if necessary) through words which are not kinship terms, such as the qualifying words *ejena* 'woman', indicating 'older female sibling', *orna* 'man', indicating 'older male sibling', or *oysura* 'youngest child', indicating 'younger male/female sibling'.

Moskonas use their clan name or 'descent group name' as their surname. There is no Moskona word for 'clan', but a person may use the phrase 'my people' (*dadin isnok)*, the expression invariably meaning 'members of his clan'. These clans include the Orocomna, Isba, Faan, Mosum, Mefen, Miristim, Sumui, Siama, Frasa, Sasior, Aigingin, Yamara, Yorkohog, Artua and Asmorom clans. Membership in a clan provides an individual a sense of identity and a network through which loyalties are built. Clan members are the primary resource for goods for brideprice payments.

1.2.8 Education

Although speakers of Moskona in more isolated regions tend to be monolingual, people are multilingual in border areas where they come into frequent contact with other languages, such as Meyah, Sougb or more distantly Maybrat, and when attending school, gain proficiency in Indonesian, the national language. The level of skill for the neighboring language may be low-level, that is, comprehension only, as they may understand, but not be able to respond in that language. In interaction with speakers of nearby languages, each person speaks his own language.

The Indonesian government has established primary schools (SD) in Moyeba, Meyerga and Merdei, staffing them with teachers who are Papuans, but from outside the language group. Children from villages with no school must move to one of these villages,

boarding with relatives, in order to attend school. As a result, entrance into the first grade is usually not begun until the age of nine or ten years old. The official language of instruction in the SDs (primary schools) is a standardized version of Malay, Bahasa Indonesia. Since village children are not familiar with Bahasa Indonesia, typically two years are required to complete first grade. Education beyond the sixth grade must be done in a coastal town, usually requiring a student to live there exclusively for up to three years at a time, as the cost of returning to the village is prohibitive. The education of a student who travels outside for education is frequently supported by the community, which provides the money required for school fees and materials. In return, the student is expected to give back to the community through some form of service.

The literacy rate in outlying villages, away from these three large villages is very low, with women having the highest percentage rate of illiteracy. Although a few booklets and the New Testament are available in the language, interest in literacy on the village level is not high.

1.3 The language

Unlike some groups in the Bird's Head, the Moskona do not identify their language by their individual clan name. The name 'Moskona' is used by the Moskona people to identify themselves and by extension their language. The name Moskona is likely a fused form, composed of *mos* 'people group' plus the deictic *no-ka* 'this' in which the consonants /n/ and /k/ have metathesized (§2.5.2.2). A number of exonyms of unknown origin, such as Meninggo, Meningo, Sabena and Meyah (Wurm and Hattori 1981, Voorhoeve 1975b) have been used in the past to refer to the Moskona.

1.3.1 Linguistic classification

Moskona is a Papuan language of the East Bird's Head family. The languages of the Bird's Head form seven separate linguistic groups: the West Bird's Head Family, Abun, Maybrat, Mpur, Mansim-Hatam, the South Bird's Head Family and the East Bird's Head Family (Reesink 2005:187). The East Bird's Head Family is composed of three languages: Moskona and Meyah, which are the closest genetically (80% cognate), and Sougb, which is only 30% cognate with Meyah and Moskona (Reesink 2002a:10, Voorhoeve 1989:92).

As an isolate family, the East Bird's Head languages are unrelated to languages outside the Bird's Head peninsula (Voorhoeve 1989:93), and within the Bird's Head, relations are distant or tenuous at best, as Mpur, Mansim-Hatam and Abun are not clearly related to each other or any other group (Reesink 2004:31). The West Bird's Head languages, which are genetically related to the North Halmahera Family (Voorhoeve 1989:90), are only very distantly related to the East Bird's Head languages. The South Bird's Head languages are a subgroup of the Trans New Guinea Phylum (Voorhoeve 1989:79), and thus unrelated genetically to the East Bird's Head languages.

Within the East Bird's Head family, Moskona, Meyah and Sougb are not mutually intelligible, having distinct language boundaries with villages which may be clearly

designated Moskona-speaking, Meyah-speaking or Sougb-speaking. Despite high cognate percentages and a large number of similar syntactic structures between Moskona and Meyah, the mutual intelligibility level is very low, due to differences in the morphological shape of forms with the same meaning. These differences may include segmental disparities and accent placement with a mismatch in pronominal prefixes adding to comprehension difficulties. A more extensive comparison of Moskona and Meyah is given in Appendix A.

At present no reconstructive work for the East Bird's Head languages has taken place. However, Reesink (1998, 2002a, 2005) has compared Meyah and Sougb data from Swadesh lists and other basic vocabulary items, demonstrating a number of sound correspondences which indicate a common heritage.

1.3.2 Typology

Moskona displays a number of features which typify Papuan languages in general, a number of features which are more typical of languages in the Bird's Head and a number of features which are specific to the East Bird's Head languages.

Like many Papuan languages, the consonant and vowel systems of Moskona are simple. However, its consonantal system is distinctive as the plosives lack symmetry due to the absence of a voiceless bilabial stop phoneme. The syllable patterns are simple (C)V(C), and the prosodic system is pitch accent. The verbal morphology, which is relatively simple compared to many other Papuan languages, has subject marking, but only reciprocal object marking, and unlike typical Papuan languages, also has aspect and mode markers. Moskona, like many Papuan languages, also exhibits nominal classificatory systems, as nouns are classified by a set of classificatory verbs (used existentially), a set of numeral classifiers, a set of sortal noun classifiers, and a possession strategy which distinguishes alienable and inalienable nouns. Possession phrases have the order possessor-possessed, an order consonant with Papuan languages in general, and also found in many Bird's Head languages. And like many Papuan languages, Moskona makes extensive use of serial verb constructions to signal a number of semantic and grammatical relations.

As in many languages of the Bird's Head, word order in Moskona is SVO, with prepositions and verbal prepositions introducing peripheral arguments. Negators occur clause-finally, a feature which has areal significance in the Bird's Head and nearby islands. And emotional-state constructions are the primary means for expression of emotion and cognitive processes.

Like other East Bird's Head (EBH) languages, root-initial segments are identifying features of Moskona word classes, as verbs and the (subclass of) inalienable nouns have a non-high vowel root-initially, alienable nouns begin with /m/ and all other classes have some other consonant as their root-initial segment. Pronouns in Moskona distinguish single, dual and plural, but lack the inclusive/exclusive opposition found in the other East Bird's Head languages. Instrument is cross-referenced on verbs, and like other EBH languages, there are two verbal adjuncts which change valence and meaning.

There are several features which are unique to Moskona itself. Moskona is unique in the behavior of the reciprocal pronoun, which is unmarked syntactically, even when functioning as a peripheral argument. Also unique is the subclass of kinship nouns, having its own set of prefixes, with some kinship nouns having properties similar to inalienable nouns, but others having properties similar to alienable nouns. Numeral classifiers, found also in Meyah, Moskona's closest relative, but uncommon in Papuan languages in general, occur on numerals one through three.

1.3.3 Dialects

There are two major dialects in the Moskona language,[1] which are distinguished by their preferences for certain phonemes and word patterns. The northern dialect is typified by the Moyeba village and the southern dialect by the Meyerga village.[2] The majority of data in examples given in this study are from the northern dialect. All speakers consider the two dialects as distinct, as each dialect area views their particular pronunciation as a component of their identity, and they establish the origin of a speaker by means of his pronunciation preferences. Yet, they frequently and unconsciously use the phonological forms of the other dialect.

The features which distinguish the dialects are all on the phonological and phonotactic level, involving dialectal preferences for particular phonemes and for a type of word pattern. And in a few cases there are lexical differences.

1.3.3.1 Bilabial phonemes

Although the phoneme inventories are almost identical, a basic phonological difference exists between the dialects in the phoneme inventories, namely the voiced labial phonemes /w/ and /b/.[3] The Meyerga dialect lacks any bilabial plosive phoneme. Many words which in the Moyeba dialect have the voiced bilabial stop /b/, in the Meyerga dialect have the phoneme /w/, such as the verb meaning 'link (together)':

Moyeba:	/ob/	[ob]	'link (together)'
Meyerga:	/ow/	[ow]	

In the Meyerga dialect the voiced bilabial approximant /w/ is realized as [b] word-initially and following a nasal, as [b] alternating with [w] preceding a plosive consonant, as [w] intervocalically and word-finally, and in all other environments the voiced bilabial

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[1] There is a third dialect area which borders the Maybrat area. One text was collected from this area, but speakers from the Meyerga dialect area were able to understand only about 70% of the words in the text. Some lexical items as well as a few grammatical morphemes from this text appear to be Maybrat forms.

[2] There is another village, Morombuy, which triangulates with these two, but which appears to be a mixture of the two. It will not be included, as data from this area is very sketchy.

[3] This difference in the use of the bilabial phoneme /b/ and the bilabial approximant /w/ causes no difficulty in comprehension between the dialects, possibly because the voiced bilabial fricative [β] and voiced bilabial stop [b] occur as allophones of both phonemes in each dialect.

fricative [β] and labiovelar approximant [w] alternate, as presented in (1). Examples of data in the Meyerga dialect in (2) illustrate these realizations.

(1)   /w/ → [b]   /   #___
                                                    Nas___

              [b] ~ [w]   /   ___C$_{plosive}$

              [w]   /   V__V
                                          ___#

              [β] ~ [w]   /   elsewhere

Meyerga dialect forms:
(2)   [búa]   /wúa/   'you.SG'
         [big]   /wig/   '2SG-hear'

         [ɛ́mba]   /émwa/   'rotten'
         [otúmbomba]   /otúmwomwa/   'hollow'

         [ɛ́βax] ~ [ɛ́wax]   /éwah/   'live'
         [ɛbdína] ~ [ɛwdína]   /ewdína/   '2SG-grandparent'
         [ɛ́wt͡ʃa] ~ [ɛ́bt͡ʃa]   /éwca/   'cracked'

         [ɛ́wɾi] ~ [ɛ́βɾi]   /ébri/   'cracked'
         [ɛ́swa] ~ [ɛ́sβa]   /éswa/   'uncover'

         [ow]   /ow/   'dig (hole)'

The occurrence of the voiced bilabial plosive /b/ in the Moyeba dialect and the voiced bilabial approximant /w/ in the Meyerga dialect may be compared in (3).

(3)   Moy: /obáda/   [oβáda] ~ [obáda]   'carry under arm'
         Mey: /owáda/   [oβáda] ~ [owáda]

         Moy: /óbder/   [óbdɛɹ̥]   'curse at'
         Mey: /ówder/   [óβdɛɹ̥] ~ [ówdɛɹ̥]

Moy: /émba/   [ɛ́mba]   'rotten'

Mey: /émwa/   [ɛ́mba]

1.2.3.2 Syllabification of /w/

Speakers of the Meyerga dialect have an alternative pronunciation of words with the approximant /w/ occurring (word medially) preceding a stop, in which the phoneme /w/ has been expanded, yielding the syllable shape *wu*C. The root-final /a/ may or may not be elided and the accent placement frequently shifts to the final syllable. This phenomenon may be observed in:

(4)   *okówga*   [okówga] ~ [okówug]   'leaf stem'

        méwda   [mɛ́wda] ~ [mɛ́wud]   'landslide'

        metéwka   [mɛtɛ́wka] ~ [mɛtɛ́wuk]   'squash'

        éwga   [ɛ́wga] ~ [ɛwúg]   '(be) torn'

        éswa   [ɛ́swa] ~ [ɛsúwa]   'uncover'

        méwka   [mɛ́wka] ~ [mɛwúk]   'mango'

        mówga   [mówga] ~ [mowúg]   '(a) boil'

From a historical perspective, the voiced labiovelar approximant /w/ quite likely has its origin in the phoneme /b/, as is evidenced by Moskona words with a root-final /w/, whose Meyah cognates have a root-final voiced bilabial stop. The bilabial approximant /w/ having undergone fortition, as observed in the voiced bilabial fricative allophone [β] in the Moyeba dialect. Several pairs of Moskona and Meyah cognates which demonstrate this relationship may be seen in the list below.

(5)   **Moskona**   **Meyah**

        medéw   'sago'   *medéb*   'sago'

        eféyu ~ eféw   'pattern' or 'color'   *eféb*   'color'

        eféwa   'plantlife'   *efebî*   'plant matter'

        mekékew   'bamboo'   *mekekéba*   'bamboo'

        étew   'much.more'   *etéb*   'big'

        egéwa   'crooked'   *egéb*   'bent'

1.2.3.3 Phoneme preferences

In addition to the difference in bilabial phonemes, there are some dialectal differences which are based on segmental preferences. The preference always involves two phonetically similar segments, such as the consonants /s/ and /c/, /b/ and /f/, or the vowels /a/ and /e/. These preferences are not predictable and do not form a broad generalization.

Consonants

Speakers of the Moyeba dialect have a preference for the phoneme /c/ in some words, which speakers of the Meyerga dialect pronounce with /s/. The following list illustrates some of these preferences.

(6) | **Moyeba** | **Meyerga** | |
| --- | --- | --- |
| *ahácum* | *ahásum* | 'inactive' |
| *éwec* | *éwes* | 'cavity' |
| *aháycen* | *ahîsen* | 'play around' |
| *écen* | *ésen* | 'distant' |
| *cic* | *sis* | 'past' |
| *ecícif* | *esísif* | 'step back' |
| *ecîcka* | *esîska* | drop, let fall |
| *écah* | *ésah* | 'put' |
| *écir* | *ésir ~ ésra* | 'fall (down)' |
| *égec* | *éges* | 'to chisel' |
| *écim* | *ésim* | 'fall over' |
| *ówoc* | *ówos* | 'skin' |
| *ohócut* | *ohósut* | 'listen' |
| *óyckur* | *óskur* | 'bad' |
| *echa* | *esha* | 'search for (known loc.)' |
| *ec* | *es* | 'press on' |
| *écha* | *ésha* | '(away) from' |
| *éc(e)ka* | *eséka* | 'poke (with finger)' |
| *edécka* | *edéska* | 'release' |

This preference is not observed in all words. The choice of phoneme for some words in both dialects is invariant. The following words have an identical phoneme choice:

(7) | *cíyja* | 'five' | *ecíra* | 'walk' |
| --- | --- | --- | --- |
| *dec* | 'same place as' | *eséki* | 'fix' |
| *déci* | 'slowly' | *eséter* | 'much more' |
| *ec* | 'buy' | *esísok* | 'EXPN' |
| *éska* | 'sting' | *úcur* | 'quiet' |

There are a few words in which speakers of the Moyeba dialect use the voiced bilabial stop /b/, but speakers of the Meyerga dialect allow an alternation with the voiceless bilabial fricative /f/, as in (8).

(8)   **Moyeba**   **Meyerga**

ébsned   *éfsnad*   'clean'
eba   *efa ~ ewa*   'wrap up'
ebca ~ ebic   *efca*   'hub'
ebca ~ ebsa   *efsa ~ ewsa*   '(be) broken off'

Vowels

The Moyeba dialect has many occurrences of /a/ ~ /e/ word-initially in words that the Meyerga dialect has only /a/, as in the list below.

(9)   **Moyeba**   **Meyerga**

eh ~ ah   *ah*   *'lie'*
éhec ~ áhac   *áhac*   'tie'
eháda ~ aháda   *aháda*   'dismantle'
ehádef ~ ahádef   *ahádef*   'release'
ehérga ~ ahárga   *ahárga*   'dry'
ehátu ~ ahátu   *ahátu*   'surrender'
ehínga ~ ahínga   *ahínga*   'break off'
egérag ~ egéreg   *egérag*   'weak'
ékar ~ eker   *éker*   'sit'

1.2.3.4 Word structure

One difference in the pronunciation of words corresponds to a preferred word structure for some two syllable words. The Moyeba dialect has a tendency to use a CV.CVC word structure in which the vowel in the final syllable is always a high vowel, /i/ or /u/. The Meyerga dialect has a preference for CVC.C*a* structure, in which the nucleus of the final syllable is always /a/.

(10)   **Moyeba**   **Meyerga**

mófug   *mófga*   'straw stem'
edíder   *edídra*   'level'
esísig   *esísga*   'ask (a question)'
étim   *étma*   'arm'
óhur   *óhra*   'bare' or 'bald'
emíki   *emka*   'poison'
efífir   *efífra*   'flattened

ébic ~ ébca	*éfca*	'hub'
ébir	*ébra*	'head'
ebiréga	*ebréga*	'leader'
ecîh ~ écha~ éca	*ésha ~ ésa*	'be from'
keréneg	*kerénga*	'upon'
ékir	*ékra*	'be empty'
eskíjig	*eskîjga*	'agree'
eséjig	*eséjga*	'swell'
mósug	*mósga*	'hanging bridge'
eyaháhir	*eyaháhra*	'block off'
gijig	*gijga*	'only'
gújig	*gújga*	'underneath'
ofómbur	*ofómbra*	'lung'

1.2.3.5 Lexical forms

There are a few instances where there is little or no morphological similarity between lexical items used in the Moyeba dialect and those with the same meaning used in the Meyerga dialect. A few of these are given in the list in (11).

(11)	**Moyeba**	**Meyerga**	
	rejéra	*dokun*	'and'
	edéfa	*difáha*	'myself'
	ócruk	*edegéjga*	'match.up'
	es-efer	*erewésha*	'young man'
	ej-efer	*ejéwjena*	'young woman'
	ofyen	*ergen*	'3DUPOS'

Chapter 2
Phonology and morphophonemics

2.0 Introduction

This chapter is a description of the phonological and morphophonemic systems of Moskona. The segmental system of Moskona is presented in §2.1 with a detailed description of each individual phoneme, including its allophones, environments and example occurrences. Following each consonant and vowel section, contrastive evidence is given for phonetically similar pairs. The phonotactics of the language are presented in §2.2, detailing the syllable shapes, possible root structures, and consonant and vowel sequences occurring across syllable boundaries. The pitch accent system is presented in §2.3. The process of reduplication, discussed in §2.4, is presented separately from other morphophonemic processes, which are given in §2.5. The final section involves a brief description of the practical orthography in §2.6.

The consonantal system is composed of fifteen consonants with the distinctive absence of a voiceless bilabial plosive. The simple five vowel system is typical of Papuan vowel systems. The shape of a syllable is (C)V(C), allowing for four canonical syllable patterns, V, CV, VC and CVC. The vast majority of roots consists of two syllables, with all possible combinations of syllable types, but roots comprised of up to four syllables have been observed.

Two salient features of the phonology involve a running speech phenomenon and a complex morphophonemic system. In running speech, there is an elision of a root-final /a/, somewhat similar to a process found also in the processes of reduplication, cliticization and compounding. The running speech phenomenon results in a consonant cluster in root-final position, yielding a syllable type not observed in slower more precise speech. The morphophonemic system widely affects the vowels of roots, affixes and enclitics.

The phonetic representation of sounds, written within phonetic brackets [ ], will always be symbolized using the IPA. For this chapter only, phonemic representation of speech forms, between slant lines '/ /', will be given in examples, conforming to the focus of this level. Representation of examples in subsequent chapters will be written without slant lines or brackets. In the phonemic representation of text examples, a few concessions to the orthography have been made. They are the voiceless bilabial fricative /ɸ/ symbolized as /f/, the voiceless velar fricative /x/ as /h/, the alveopalatal affricates / t͡ʃ/ or /t͡ɕ/ as /c/ and /d͡ʒ/ or /ɟ͡ʝ/ as /j/ respectively, the flap /ɾ/ as /r/ and the palatal semi-vowel /j/ as /y/.

2.1 Phonemes

The Moskona segmental inventory consists of fifteen consonants and five vowels. The following description of the segmental inventory includes rules of allophony and evidence of contrast for phonetically similar segments.

2.1.1 Consonants

The consonantal system of Moskona is a simple one, a common feature in most Papuan languages (Foley 1986:55). Due to the morphophonological characteristics of the various word classes, consonants, with the exception of /m/, are rare in root-initial position. As may be observed in Table 2.1, the plosives have an asymmetrical configuration due to the absence of a voiceless bilabial plosive, although the phone [p] occurs as an allophone of /b/ and in a few loan words.

Table 2.1 Consonant inventory
Consonant phonemes with their allophones given in brackets

	Bilabial	Alveolar	Palatal	Velar
Plosive, voiceless		t [t]	c [t͡ʃ]	k [k]
Plosive, voiced	b [b] [ß] [p]	d [d]	j [d͡ʒ][t͡ʃ] [ʃ]	g [g][ɣ]
Fricative	f [ɸ]	s [s]		h [x] [h]
Nasal	m [m]	n [n] [ŋ]		
Flap		r [ɾ] [ɾ̥]		
Approximant	w [w] [ß]		y [j]	

2.1.1.1 Consonants in all relevant environments

Unless otherwise indicated, the allophones listed for a phoneme occur in all dialects.

Plosives

The plosives are comprised of the stops /t, k, b, d, g/ and the affricates /c/ and /j/. The affricates are included in the plosive category as they pattern in the same way as the stops, that is, they observe the same syllable positions as do the stops, occurring in onset and coda positions.

/t/
The voiceless alveolar stop, realized as [t], occurs in onset and coda.

(1)   [tin]   /tin/   'also'

           [tómro̥]   /tómror/   'openly'

           [ɔ́xɔt]   /óhot/   'say'

           [oskájtok]   /oskáytok/   'small (bit)'

           [mitówmat]   /mitówmat/   'metal spear'

           [ɛɸta]   /éfta/   'attach to'

           [ɛ́txa]   /étha/   'span over'

/k/
The voiceless velar stop, realized as [k], occurs in all syllable onset and coda positions.

(2)   [kɛɾɛ́ŋga]   /kerénga/   'upon'

           [mokáxa]   /mokáha/   'fly'

           [jik]   /yik/   'you.PL-see'

           [ɛkɾís]   /ekrís/   'exceed'

           [ɛdɛ́ska]   /edéska/   'release'

           [ɛ́mka]   /émka/   '(to) poison'

           [ókuk]   /ókuk/   'hunt (birds)'

The rounding influence of the vowel /o/ occasionally spreads to the adjacent /k/, resulting in the phonetic realization [kʷ], observed in these few words:

(3)   *ekók(a)*   'father'   [ɛkɔ́ka] ~ [ɛkʷɔ́ka]

           okés(a)   'whole'   [okɛ́s] ~ [okʷɛ́s]

           mokés(a)   'string for loincloth' [mokɛ́s] ~ [mokʷɛ́s]

           óked   'chant'   [ókɛd] ~ [ókʷɛd]

           okóka   'flap' / 'flutter'   [ɔkɔ́ka] ~ [ɔkʷɔ́kʷa]

/b/
The allophones of the bilabial stop have a complex distribution[4]. The voiced bilabial stop /b/ has these allophones: the voiced bilabial fricative [ß] alternating with the voiced bilabial stop [b] intervocalically and preceding /r/ and /n/, the voiceless bilabial stop [p] preceding a voiceless plosive and the voiced bilabial plosive [b] occurring elsewhere. The voiced bilabial plosive occurs in word-final position only rarely.

---

[4] The Meyerga dialect does not have a bilabial plosive, but does have [b] as an allophone of /w/ (See §1.2.3.1).

(4) /b/ → [β] ~ [b]   /   V __ V
                                  ___/r/, /n/

         [p]   /   ___C vl plosive

         [b]   /   elsewhere

(5)   [έbna] ~ [έβna]   /ébna/   'signal'
         [εβí] ~ [εbi]   /ébi/   'defecate'
         [εβax] ~ [εba x]   /ébah /   'alive'
         [εbɾi] ~ [εβɾi]   /ébri/   'crack'
         [obd͡ʒεɸi]   /objéfi/   'malign'
         [εbsíta]   /ebsíta/   'infertile'
         [έpka]   /ébka/   'crack in two'
         [ob]   /ob/   'snap off s.t.'

/d/
The voiced alveolar stop /d/, realized as [d], occurs in onset and coda positions.

(6)   [diɸ]   /dif/   'I'
         [εdέs]   /edés/   'NUM:2-one'
         [ɔxsúda]   /ohsúda/   'search for'
         [odɾóɾ̥]   /odrór/   'be dangling'
         [oβáda]   /obáda/   'carry under arm'
         [dέkɛ]   /déke/   'may'

/g/
The voiced velar stop /g/ occurs in syllable onset and coda positions. It is realized as a voiced velar fricative [ɣ] alternating with a voiced velar stop [g] intervocalically and as [g] in all other environments.

(7)   [εɾgέm]   /ergém/   'NUM:1-CST'
         [d͡ʒug]   /jug/   'against'
         [gug]   /gug/   'to'
         [gúd͡ʒga]   /gújga/   'beneath'
         [jóga] ~ [jóɣa]   /yóga/   'you.DU'
         [ogúguj] ~ [ogúɣuj] /ogúguy/   'appease'
         [ogá] ~ [oɣá]   /ogá/   'speech'

The affricates [t͡ʃ] and [d͡ʒ], symbolized as phonemes /c/ and /j/, have a unitary function as evidenced by their occurrence in single slot in syllable onset, as in *ciyja* 'five' and *jug* 'against' and in the coda, as in *ecîcka* 'drop', or in running speech in the second consonant position in a CVCC syllable, such as *efémj* 'root hairs' or *egébj* 'cuss out'. Additional evidence may be seen in dialectal variants in which /c/ alternates with the single phoneme /s/, such as the Moyeba form *ocót* and the Meyerga form *osót* 'count' or the Moyeba form *ec* and the Meyerga form *es* 'become'.

/c/
The voiceless alveopalatal affricate, realized as [t͡ʃ], occurs in syllable onset and coda positions.

(8)   [okɛ́t͡ʃit͡ʃ]   /okécic/   'point out'
             [t͡ʃúmd͡ʒog]   /cúmjog/   '3 days ago'
             [óɸt͡ʃa]   /ófca/   'puff (of wind)'
             [ot͡ʃúga]   /ocúga/   'fifth day'
             [dɛt͡ʃ]   /dec/   'same location as'
             [ót͡ʃko]   /ócko/   'daily'
             [t͡ʃíjd͡ʒa]   /cíyja/   'five'
             [ɛt͡ʃ]   /ec/   'buy'
             [ɛt͡ʃɪra]   /ecíra/   'walk'

/j/
The voiced alveopalatal affricate /j/ is realized as the voiced alveopalatal affricate [d͡ʒ] alternating with the voiceless alveopalatal affricate [t͡ʃ] and the voiceless alveopalatal fricative [ʃ]. The voiceless alveopalatal affricate [t͡ʃ] is a shared allophone of /c/ and /j/. The voiced alveopalatal affricate occurs in syllable onset and coda.

(9)   /j/   →   [d͡ʒ] ~ [t͡ʃ] ~ [ʃ]

         [d͡ʒug] ~ [t͡ʃug] ~ [ʃug]   /jug/   'against'
         [ɛkɛ́t͡ʃ] ~ [ɛkɛ́t͡ʃ] ~ [ɛkɛ́d͡ʒ]   /ékej/   'divide up'
         [odót͡ʃ] ~ [odód͡ʒ ~ [odóʃ]   /ódoj/   'meet accidently'
         [ʃɛna] ~ [t͡ʃɛna]~ [d͡ʒɛna]   /jéna/   'precisely'
         [ʃiʃɛ́ma]~ d͡ʒid͡ʒɛ́ma]   /jijéma/   'hidden'
         [idéd͡ʒa] ~ [idét͡ʃa]   /idéyja/   'VIS-up-THITHER'
         [rɛd͡ʒɛ́ɽ]~ [rɛʃɛ́ɽ]   /rejér(a)/   'with'
         [óɸt͡ʃig] ~ [óɸd͡ʒig]   /ófjig/   'help'
         [ód͡ʒgun] ~ [óʃgun] ~ [ót͡ʃgun]   /ójgun/   'cough'

Fricatives

/f/

The voiceless bilabial fricative /f/, realized as [ɸ], occurs in syllable onset and coda positions.

(10)	[ɸɛn]	/fen/	'from'
	[ɛ́ɸt͡ʃa]	/éfca/	'hub'
	[óɸoɸ]	/ófof/	'run'
	[etóɸa]	/eytófa/	'forehead'
	[ɛ́ɸdɛt͡ʃ]	/éfdec/	'spread to'
	[oɸúda]	/ofúda/	'arrive'

/s/

The voiceless alveolar fricative /s/, realized as [s], occurs in syllable onset and coda.

(11)	[sáɾɛg]	/sáreg/	'metal bracelet'
	[osɛ́ɾ̥]	/osér(a)/	'faint'
	[ɛ́msa]	/emsa/	'sniff'
	[ɛséki]	/eséki/	'fix'
	[ɛsísok]	/esísok/	'EXPRN'
	[ɛ́ska]	/éska/	'sting'
	[t͡ʃɛɾgɛ́s]	/cergés/	'once'

/h/

The voiceless velar fricative /h/ is realized as the voiceless velar fricative [x] alternating with the voiceless glottal fricative [h] in all positions. However, [x] is observed more frequently. It occurs in syllable onset and coda.

(12)	[ax] ~ [ah]	/ah/	'lie (down)'
	[xad] ~ [had]	/had/	'toward'
	[xun] ~ [hun]	/hun/	'camoflaged'
	[oɾusóxta] ~ [oɾusóhta]	/orusóxta/	'think'
	[áxda] ~ [áhda]	/áhda/	'itch' / 'irritated'
	[bixa] ~ [biha]	/biha/	'you.SG-pay'
	[óxta] ~ [óhta]	/óhta/	'suck out'

Nasals

/m/
The voiced bilabial nasal, realized as [m], occurs in syllable onset and coda.

(13)   [mosú]   /mosú/   'mother'
           [mówos]   /mówos/   'village'
           [nóma]   /nóma/   'that (one)'
           [ósum]   /ósum/   'nose'/'face'
           [ɛ́mba]   /émba/   'rotten'
           [ɔ́xum]   /óhma/   'tear loose'
           [otúmba]   /otúmba/   'hollow'

/n/
The voiced alveolar nasal /n/ occurs in syllable onset and coda. In syllable coda preceding a velar plosive /k/ or /g/, it is realized as a voiced velar nasal [ŋ] and as [n] in all other environments.

(14)   [nɛ́sa]   /nésa/   'quickly'
           [noméd͡ʒ]   /noméj]   '(place) yonder'
           [ɛbdína]   /ebdína/   'press down on'
           [ɛn]   /en/   'come'
           [enɛ́gnɛg]   /eynégneg/   'rock (to & fro)'
           [ógnunuí]   /ógnunuí/   'many'
           [modɛ́ŋka]   /modénka/   'citrus'
           [moŋgák]   /mongák/   'small parrot'
           [ójɲga]   /óynga/   'fold'

Flap

/r/

The voiced alveolar flap /r/, which occurs in onset and coda positions, is realized as voiceless alveolar flap [ɾ̥] contiguous to voiceless consonants and word finally and as the voiced alveolar flap [ɾ] in all other environments. The voiced lateral approximant [l] has been observed to occur in variation with [ɾ] intervocalically, but only rarely, and so is not included as an allophone of /r/.

(15)	[ɾud]	/rud/	'against'
	[ɾáxu]	/ráhu/	'long time'
	[ɛ́ɾa]	/éra/	'NEG'
	[ɛ́bɾi]	/ébri/	'crack'
	[ɛsétɛɾ̥]	/eséter/	'much more'
	[ɛɸɛ́mbɾa]	/efémbra/	'flank'
	[ɛ́tʂɛt]	/étret/	'annoy'
	[amókɛɾa]	/amókera/	'friend-PL'
	[ɛbiɾóɾ̥xa] ~ [ɛβiɾóɾ̥xa]	/ebirórha/	'skull'
	[igɛ́ɾ̥sa]	/igérsa/	'male (animal)'

Approximants

The distribution of the approximants /w/ and /y/ is limited to intervocalic and syllable-final positions, with the exception of /y/, occurring in the pronominal prefixes *y-* 'DU' and *yi-* '2PL' (§5.1.5). Unlike the pronominal prefix *i-* '3PL', the dual prefix *y-* does not undergo (vocalic) assimilation when attached to verbs or inalienable nouns, evidencing its function as a consonant rather than a vowel. The palatal approximant is also a conditioning factor for an allophone of the phoneme /u/ (§2.1.2.1).

/w/

The bilabial approximant /w/ is realized as the voiced bilabial approximant [w] alternating with the voiced bilabial fricative [β] between two unrounded mid vowels (i.e. /e/ and /ɛ/) and as [w] in all other environments. (The voiced bilabial fricative [β] functions as a shared allophone of the phoneme /b/ and the bilabial approximant /w/.)

$$/w/ \rightarrow \begin{array}{lll} [w] \sim [\beta] & / & V_{unrd} \underline{\quad} V_{unrd} \\ [w] & / & \text{elsewhere} \end{array}$$

(16) [ɛ́wɛk] ~ [ɛ́βɛk]   /éwek/   rounded'
      [ɛ́wɛs] ~ [ɛ́βɛs]   /éwes/   'cavity'
      [ówox]   /ówoh/   'webbed'
      [étɛw]   /étew/   'much'
      [mítow]   /mítow/   'machete'
      [ówot]   /ówot/   'secretion'
      [owóka]   /owóka/   'name'

/y/
The palatal approximant /y/ is realized as [j] in all environments.

(17) [jɛk]   /yek/   'DU-see'
      [ájɔk] ~ [ájok]   /áyok /   'mother (voc.)'
      [jit]   /yit/   '2PL-eat'
      [ótøj]   /ótuy /   'tight.packed'
      [ójɸa]   /óyfa/   'good'

(18) [eóɾga]   /eyórga/   'lower'
      [éd͡ʒa]   /éyja /   'go (to)'

The phone [e], interpreted as a coalescence of [ɛ] and [j], is represented phonemically as
/ey/, as in [eóɾga] /eyórga/ '(to) lower', and [éd͡ʒa] /éyja / 'go (to)' in (18).

Loan phoneme /p/

The voiceless bilabial stop, realized as [p], occurs in a few loan words from Eastern
Indonesian Malay, used by speakers with frequent contact with Malay. Monolingual
speakers use /b/ or /f/.

(19) Moskona   E.I. Malay   Gloss
      [pát͡ʃuɾ̥]   /pácur/   pacul   'hoe'
      [paóga]   /paóga/   paku   'nail'
      [pɛ́nsiɾ̥]   /pensir/   pensil   'pencil'
      [pas]   /pas/   beras   'rice'

2.1.1.2 Consonantal oppositions

Consonants which are phonetically similar are presented in the following lists in
contrastive pairs. Phonemes are given in identical environments where possible,
otherwise in analogous environments. Some examples exhibit syllable patterns found in
running speech rather than citation forms, but nevertheless demonstrate clear contrast.

(20)   /b/ vs /w/

	ow	'dig (hole)'
	ob	'pluck'
	ówra	'cross through'
	óbra	'bark (at)'

(21)   /t/ vs /d/

	orót	'accompany'
	oród	'meet accidently'
	tin	'also'
	din	'1SG-do'
	aháda	'dismantle'
	ahátu	'surrender'

(22)   /t/ vs /r/

	or	'hold'
	ot	'wash'
	róga	'first'
	tóga	'different(ly)'
	oróh	'CAUS-sink down'
	ótoh	'wide'
	mésta	'moon'
	mésra	'walnut tree'

(23)   /d/ vs /r/

	erá	'THM'
	edá	'then'
	eséd	'grab'
	esér	'pass by'

dudú	'1SG-tell'
rúdud	'by'
ófra	'lift'
ófda	'arrive'

(24)   /t/ vs /c/

éti	'suffer (pain)'
éciy	'penis'
cúmjog	'three days ago'
tum	'onto'
éfta	'attach to'
éfca	'hub'
et	'eat'
ec	'buy'
mótga	'buttress root'
mócga	'mortar'

(25)   /d/ vs /j/

od	'strike accidently'
oj	'descend into'
ej	'open (mouth)'
ed	'join'
ódgak	'torso'
ójga	'origin(ate)'
jig	'LOC'
dig	'1SG-hear'
óduy	'front (of person)'
ójuy	'shove away'

(26)   /c/ vs /j/

          ocúja   'sixth day from now'
          ojúj(a)   'hire' / 'compensate'

          cîyja   'five'
          jijéma   'concealed'

          ókuc   'point out'
          ókuj   'fetch (inan. obj)'

          ec   'buy'
          ej   'female'

(27)   /j/ vs /y/

          ey   'weave'
          ej   'open (mouth)'

          ójok   'hit'
          óyok   'insult'

          ójga   'originated (from)'
          óyka   'dance'

(28)   /k/ vs /g/

          gug   'to'
          kug   'tick'

          eg   'hear'
          ek   'see'

          ógun   'add (on)'
          ókun   '(out)side'

          ófga   'bleed'
          ófka   'cut and stack'

(29)   /h/ vs /k/

        oh   'emit' / 'give out'
        ok   'flee'/ 'run off'

        huna   'camoflaged'
        kuk   'along(side)'

        ohás   'hop'
        okás   'entire'

        (o)mómka   'woman's breast'
        mómha   'insanity'

(30)   /b/ vs /f/

        obúy   'beat'
        ofúy   'function'

        óbra   'bark (at)'
        ófra   'lift'

        fen   'from'
        bin   '2SG-come'

        ófod   'surplus'
        obáda   'carry under arm'

(31)   /s/ vs /c/

        es   'male'
        ec   'buy'

        decîr   'correct'
        tesi   'below'

        déci   'slowly'
        tesi   'below'

2.1.2 Vowels

The vowel system of Moskona, which consists of five vowels with limited allophony, is consistent with vowel systems typical of Papuan languages (cf. Foley 1998:506). An inventory of the vowel phonemes and their allophones is given in Table 2.2. with allophones of each phoneme given in brackets. There are few limitations on where vowels may occur in a word, but the position of mid vowels in roots is limited. The mid vowels /e/ and /o/ occur in root-initial and medial position, but rarely occur in root-final position, which is occupied most frequently by the low vowel /a/. In the following discussion descriptions and phonetic realizations along with environments will be given with each vowel phoneme.

Table 2.2 Vowel inventory

	Front	Central	Back
High	i [i] [ɪ]		u [u] [ø]
Mid	e [ɛ]		o [o] [ɔ]
Low		a	

2.1.2.1 Vowels in all relevant environments

/i/

In closed syllables preceding a flap /ɾ/, /i/ is realized as [ɪ]. In all other environments [i] occurs. The close front vowel /i/ occurs in all syllable types.

(32) [eɾɪ̥]   /eyɾír(a)/   'vibrate'
      [ɛd͡ʒid͡ʒ]   /ejíj(a)/   'twist'
      [ída]   /ída/   'who'
      [ɛ́ɾi]   /éri/   'they.PL'
      [ɛsíwkd͡ʒig]   /esíwkjig/   'allow'
      [ɛβɛkɪ̥́ka]   /ebekírka/   'stubborn'
      [tin]   /tin/   'also'

/e/

The mid front vowel /e/ has the phonetic realization [ɛ]. The open mid front vowel [e], which occurs infrequently and has limited distribution, is interpreted as a coalescence of

the sequence [ɛ] plus [j]. Words such as [éta] 'take' and [éd͡ʒa] 'go (to)' will be written as /éyta/ and /éyja/ respectively. The phoneme /e/ occurs in the syllable nuclei of all syllable types.

(33) [ɛ́ɸɛɾ̥]   /éfer/   'child'

      [ɛ́kɛ]   /éke/   'collide'

      [ɛ́gɛ] ~ [ɛ́ɣɛ]   /ége/   'scoop'

      [mɛ́ɾga]   /mérga/   'wood'

      [ésaxa]   <   [ɛ́jsaxa]   /éysaha/   'reach'

      [exa]   <   [ɛjxa]   /éyha/   'pay'

/u/
The close back vowel /u/, when immediately preceding the palatal approximant /y/, is realized phonetically as [ø] and in all other environments as [u]. It occurs in all syllable nuclei.

(34) [ódøj]   /óduy/   'front'

      [ótøj]   /ótuy/   'dense'

      [múwga]   /múwga/   'porch'

      [xúna]   /húna/   'camoflaged'

      [úsra]   /usra/   '3PL-enter'

      [ɾáxu]   /ráhu/   'long time'

      [mɛ́ɾu]   /méru/   'handle'

      [motúɾka]   /motúrka/   'bower bird'

/o/
The close mid vowel /o/ occurs in all syllable types. Contiguous to velar consonants /k, g/ and /h/, /o/ is realized as [o] alternating with [ɔ]. In all other environments, it is realized as [o].

(35) [ójsa]   /óysa/   'finish'

      [óko] ~ [ɔ́ko] ~ [ɔ́kɔ]   /óko/   'thatch a roof'

      [osótka]   /osótka/   'marry (male word)'

      [máɾɔg] ~ [máɾog]   /márog/   'arrow'

      [óɸoga] ~ [óɸɔga]   /ofóga/   'cloud'

      [ɔ́xot] ~ [óxot]   /óhot/   'say'

      [ɛkɔ́k] ~ [ɛkók]   /ekók/   'father (voc)'

/a/

The low central vowel /a/ is realized phonetically as [a] and occurs in all syllable types with no allophonic variation.

(36) [ɛ́sta]   /ɛ́sta/   'suck'/ 'smoke'

      [mɛɾɛ́gax]   /merégah/   'mid-way'

      [ɛ́gak]   /égak/   'leg'

      [áxa͡t͡ʃ]   /áhac/   'tie'

      [tiná]   /tiná/   'but'

      [áxda]   /áhda/   'itch'

2.1.2.2 Vocalic oppositions

The following sets of words illustrate the phonemic contrast of similar vowel phonemes in identical and analogous environments.

(37)   /i/ vs /e/

              en   'come'
              in   'they.PL-come'

              éki   'weave bamboo'
              éke   'almost'

              éker   'sit'
              ékir   'empty'

              etkétka   'very near'
              etkítka   'cracking (sound)'

(38)   /u/ vs /o/

              uhóbta   '3PL-stare'
              ohóbta   'stare'

              óhur   'lie'
              óhor   'urinate'

              jug   'against'
              jog   'already'

	móruj	'wasp'
	morója	'path'

(39)   /a/ vs /e/

	ámsa	'still'
	émsa	'sniff'
	ári	'week'
	éri	'they.PL'
	mar	'thing'
	mer	'room'

(40)   /e/ vs /o/

	éker	'sit'
	óker	'peel off (in strips)'
	ok	'bear'
	ek	'see'
	yeg	'you.DU-hear'
	yog	'you.DU-bend'

(41)   /a/ vs /i/

	édi	'push back'
	edá	'then'
	ah	'lie'
	ih(a)	'they.PL-pay'
	-mi	'far-GIV'
	-ma	'far'

(42)   /a/ vs /o/

	ah	'hack'
	oh	'emit'
	mos	'fish'
	mas	'rain'

áhac	'tie'
óhac	'spit out'

2.1.2.3 Vowel sequences and syllable nuclei

In vowel plus high vowel sequences, the high vowels are interpreted as approximants, that is, the sequence is a vowel plus an approximant. This interpretation is supported by the nonsyllablic function of the high vowels in the sequence. Interpretation of high vowels as approximants also fits well with the canonical syllable patterns, especially as CVC is a most unambiguous structure.

Within a syllable only vocoid sequences of vowel plus high vowel are attested. All other vowel sequences constitute separate syllables. The vocoid sequences which occur in syllables are presented in Table 2.3. The first vocoid in the sequence is positioned by row, second vocoid in the sequence by column.

Table 2.3 Vocoid sequences

	i	e	a	o	u
i	ii				iu
e	ei				eu
a	ai				au
o	oi				ou
u	ui				uu

These sequences occur only in open syllables, that is, assignment of consonantal status to the high vowels does not produce a syllable with a consonant cluster in the coda. The sequence [ɛi] has not been observed to occur, but the phone [e], interpreted as the coalescence of the sequence [ɛi] as in (44), completes the configuration. The vowel plus high vowel sequences are illustrated by examples (43 – (52).

(43)	ii	[míi]	/miy/	'cloth'
		[t͡ʃíid͡ʒa]	/cíyja/	'five'
(44)	ei	[ésaxa]	/éysaha/	'reach'
		[éta]	/éyta/	'take'
(45)	ai	[áinun]	/áynun/	'enduring'
		[máina]	/máyna/	'loincloth'

(46)	oi	[oiɾéga]	/oyréga/	'tail'
		[óika]	/óyka/	'dance'

(47)	ui	[osusǿi]	/osusúy/	'shudder'
		[oɸǿiga]	/ofúyga/	'upper portion'

(48)	iu	[ɛtíu]	/etíw/	'elbow'
		[misíu]	/misíw/	'rat'

(49)	eu	[étɛu]	/étew/	'much'
		[mékɛu]	/mékew/	'father'

(50)	au	[éŋgau]	/éngaw/	'crooked'
		[áxau]	/áhaw/	'descend'

(51)	ou	[mítou]	/mítow/	'machete'
		[oɸóua]	/ofówa/	'beak'

(52)	uu	[múuga]	/múwga/	'porch'
		[úuos]	/úwos/	'3PL-skin '

In the sequence vowel plus high vowel, such as [ui], the first vowel functions as the nucleus, as in *ófuy* 'egg', illustrated in Figure 2.1.

In instances of high vowel plus high vowel, such as /ui/, in which the second high vowel of the sequence carries an accent, two syllables are formed. No words have been observed with the vowel sequence /iu/ in which /u/ carries the accent.

(53)	*másu.îr*	'sandfly'
(54)	*mocú.îr*	'mother-PL'

Figure 2.1 Graph of *ófuy* 'egg'
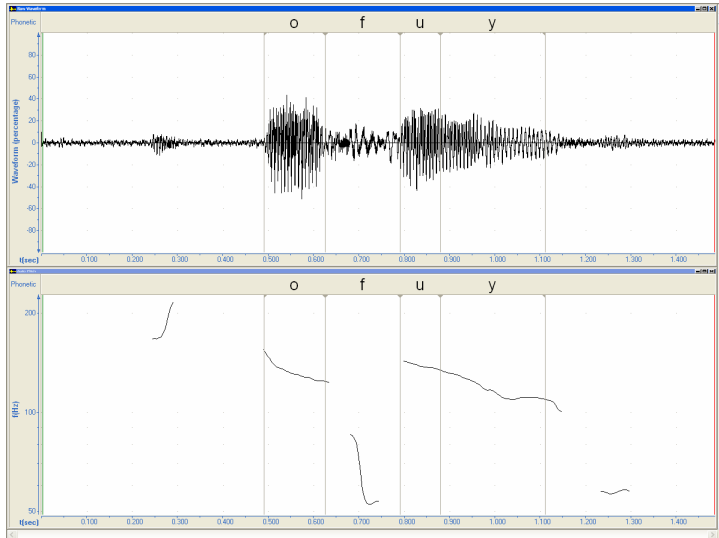
2.2 Phonotactics

This section describes the sequential arrangement of syllable types within monomorphemic roots. A root may consist of a single syllable with the structure (C)VC. The discussion will begin with the canonical syllable types and a presentation of their distribution in roots, followed by a discussion of the phenomenon of running speech and the paragog *–a*. A presentation of those consonant and vowel sequences which may occur across syllable boundaries will conclude the section.

2.2.1 Syllable structure

Canonical syllable patterns found in monomorphemic roots are the open syllables: V and CV and the closed syllables: VC and CVC[5]. The nucleus of a syllable is a single vowel. There are no sequences of two non-high vowels functioning as the nucleus of a syllable, as all vowel sequences occur across syllable boundaries.

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[5] There are four single syllable roots which have been observed to have a consonant cluster with the syllable type CCVC. Two of them are the adapted loan words, *srad* 'document' or 'writings' from the Malay word *surat* 'letter' and *skor* 'school' from Malay *sekolah* 'school'. The other two words, *skod* 'to (someone's location)' and *smen* 'perhaps', appear to be forms resulting from collapsed phrases. CCVC is not included in the canonical syllable types.

Monomorphemic roots are typically no longer than three syllables. Although there are a few nominal forms which have four syllables, these are interpretable as fused forms whose individual parts are no longer identifiable.

2.2.1.1 Syllable shapes and root structures

(i) Monosyllabic morphemes

There are no roots composed of a single vowel. All single vowel morphemes are either enclitics or affixes. All five vowels occur as a type of affix or enclitic.

(55)	V	*-i*	'GIV'
		i-	'3PL'
		-o	'EMP'
		-a	'PGE'
		-i	'PROT'
		e-	'FOC'
		u-	'NONVIS'

In roots with the shape VC in which the consonant is an approximant /w/ or /y/, only /e/ and /o/ occur as syllable nuclei. (High vowels are excluded due to the fact that all inalienable nouns and verbs have a non-high vowel as the root-initial segment (§3.1.2 and §3.2). Roots with the structure VC, which have a consonant which is not an approximant, have the non-high vowels /e, o, a/ as nuclei, but /a/ in this word type is extremely rare.

(56)	VC	*ey*	'weave'
		ew	'pass (into)'
		oy	'tie on (body)'
		ow	'fry'

(57)	VC	*eg*	'hear'
		ek	'inject'
		ok	'flee'
		of	'fell (tree)'
		od	'strike accidently'
		ah	'lie'

There are very few lexical forms in which the root has the syllable structure CV. All other morphemes with CV shape are prefixes.

(58)	CV	*se*	'definite'
		ni	'for'
		di-	'1SG'
		bi-	'2SG'

mi-	'1PL'
yi-	'2PL'
no-	'DNR'

The most common root structure in monosyllabic morphemes is CVC, with all five vowels occurring in the nucleus.

(59)   CVC   *mek*   'pig'
        fen   'from'
        tas   'again'
        mas   'rain'
        jig   'LOC'
        sis   'past'
        kog   'ahead'
        ros   'still'
        kus   'short span'
        gug   'to'

(ii) Two syllable roots

Roots with the structure CV.V are uncommon, found only in a few words.

(60)   CV.V   *bú.a*   'you.SG'
        yú.a   'you.PL'
        kú.a   'tea' / 'infusion'

Roots with the structure CV.CV are common with all vowels occurring in all nuclei.

(61)   CV.CV   *dé.ke*   'may'
        dá.ka   'avert'
        dé.ci   'slowly'
        dú.du   'incrementally'
        jé.na   'precisely'
        jí.da   'until'
        ká.ju   'bean' / 'peanut'
        mó.hu   'broad cloth'
        rá.hu   'long time'
        tí.ma   'tin (metal)'
        bú.si   'k.o. spear'

Roots with the structure V.CV and V.CVC have all vowels occurring in the nuclei of the second syllable, but the first syllable of V.CV and V.CVC roots is limited to the non-high

vowels /e/ and /o/, illustrating a morphophonological characteristic of verbs (§3.2) and inalienable nouns (§3.1.2). The only instances of /a/ in the initial syllable are recent loans, such as *á.ri* 'week' and *á.ra* 'God'.

(62)	V.CV	*é.di*	'push against'
		é.ba	'refuse'
		é.bi	'defecate'
		é.fi	'used'
		é.cu	'warn'
		é.ke	'collide'
		ó.ko	'(to) roof'
		ódu	'tell'
		o.gá	'speech'
		ó.gu	'plop'

(63)	V.CVC	*a.háh*	'etched'
		é.bah	'raw'
		é.fíf	'arrange'
		é.bir	'head'
		é.fem	'nest'
		ó.ked	'sole of foot'
		o.góh	'base'
		ó.gun	'add'

Roots with the structure VC.CV have nonhigh vowels in the initial syllable. With few exceptions, only /a/ occurs as the nucleus of the second syllable. Instances of /i/ or /o/ in the second syllable are arguably separate morphemes which have fused to the root (e.g. *i-(ef)* 'near' or *–i* 'GIV')

(64)	VC.CV	*óh.ka*	'chin'
		ój.ga	'originated'
		ód.ra	'dangling'
		áh.da	'itch'
		óh.ma	'go hunting'
		ék.sa	'shoulder'
		éc.ka	'perforated'
		éf.sa	'white'
		éf.na	'flat'

	éf.ta	'attach to'
	ób.ra	'bark at'
	eb.rí	'crack'
	éc.ki	'two days ago'
	og.rí	'straight'
	óc.ko	'daily'

The root structure CV.CVC is the predominant structure for alienable nouns. Many words with *ma(r)* 'thing' as the first syllable are earlier forms with *m-* 'NR' fused to the root.

(65)	CV.CVC	*dá.kin*	'vigorously'
		má.hat	'tongs'
		má.tah	'shade'
		má.ken	'hook'
		ma.móm	'overcast sky'
		má.nir	'leader'
		má.rog	'arrow'
		mé.def	'sago'
		mé.deg	'bamboo'

The initial syllable of roots with VC.CVC structure is filled by /e/ or /o/ only. The final syllable may be any vowel.

(66)	VC.CVC	*éj.meg*	'spine'
		én.git	'make'
		ób.rer	'(be) sunken'
		óf.jig	'help'
		ók.rok	'grate (sound)'
		ós.kur	'bad'
		óc.ruk	'match up'
		ód.gak	'torso'

In CVC.CV syllables, the final syllable may be filled by /a/ only, with the exception of a very few forms like *máh.ti* 'legend', which is likely a collapsed phrase.

(67)   CVC.CV   *mós.ta*   'prey'
                          máh.ga   'sm. roof poles'
                          már.sa   'game (meat)'
                          méb.ka   'mango'
                          mám.ga   'pestle'

The first syllable of a CVC.CVC structure may be filled by a mid vowel only, /e/ or /o/, the final syllable by any vowel.

(68)   CVC.CVC   *meb.jéf*   'red biting ant'
                          meb.gíf   'fan palm'
                          már.gir   'small parrot'
                          méb.dah   'landslide'
                          méf.nef   'crow'
                          més.kid   'elephant grass'
                          més.nom   'corn'
                          més.ter   'plate'
                          móc.mir   'earthquake'
                          móc.kur   'thick stick'

(iii) Three syllable roots

Many of the three syllable roots are phrases or compounds which have collapsed, and although many of the individual morphemes are no longer identifiable, a few morphemes still have a meaning which may be inferred.[6]

Three syllable roots with a single vowel as initial syllable, having the structure V.CVC.CV or V.CV.CVC are restricted in the vowels which occur in the initial and final syllables. The initial syllable must be either /e/ or /o/. In V.CVC.CV the final syllable must have /a/ as its nucleus.

(69)   V.CV.CVC   *e.ge.díd*   'obstruct'
                          o.gú.gar   'cooled down'
                          e.gé.rag   'weak' / 'soft'
                          o.có.hun   'enveloped'

---

[6] For example, the morpheme *mes-*, whose origin is untraceable, appears to be a base form used in the names of many types of plant life, such as *meska* 'breadfruit', *meskereg* 'wild pandanus', *meskid* 'elephant grass', *mesnom* 'corn', *mesra* 'walnut tree', and *mesren* 'short coarse grass'. The plant names also appear to have transferred over to items which were made from that plant, as may be observed in words such as *mesiew* 'comb', *mesrahu* 'platform', *mesiga* 'ladder' and *mesigebra* 'bow'.

		o.fó.gun	'old (outdated)'
		o.fo.jók	'poor (person)'
		o.gú.gen	'pacify'
(70)	V.CVC.CV	e.sís.ga	'ask (a question)'
		e.fír.na	'(feel) chilled'
		e.fíf.ra	'leveled'
		e.géb.ja	'cuss out'
		o.dóc.ka	'reply'
		o.dúr.na	'unaware'
		e.sîr.na	'(be) sick'
		o.gór.na	'thirst
		o.sór.na	'hunger'
		o.fóm.sa	'energy' / 'effort'
(71)	V.CV.CV	a.há.tu	'surrender'
		a.mó.ka	'friend'
		e.jé.ka	'call out'
		e.bá.ha	'drag (with force)'
		e.cí.ra	'walk'
		e.sé.ka	'poke'
		e.dé.ga	'remove'
		o.cí.ga	'affect'
		o.cú.ga	'fifth day hence'

Various other three syllable word structures have been observed, but seem to have only a few words with each structure. A few examples of other structures are given below.

(72)	CV.CV.CV	ma.sí.na	'rainy season'
		me.ge.sí	'leech'

(73)	V.CVC.CVC	o.fór.dor	'liver'

(74)	VC.CV.CV	or.sí.ki	'slippery'

(75)	CV.CV.VC	me.si.éw	'comb'

(76)	CVC.CV.CV	mah.te.réw	'lattice'

(77)   CV.CVC.CV   *mo.túr.ka*   'bower bird'
                           ke.rén.ga   'upon'

(78)   CV.CVC.CVC   *mo.dóc.kor*   'pinworms'
                           mi.tów.mat   'metal spear'

(79)   VC.CV.CVC   *em.bi.sîf*   'stink'

Four syllable roots are rare and are interpretable as collapsed phrases, such as *edegéjga* from *edága jig* (enough LOC).

(80)   V.CV.CVC.CV   *e.de.géj.ga*   'match up'

The unusual word structure VCC.C*a* has been observed in three numerals which are composed of a numeral classifier, *ers-* 'NUM:6 ', *ors-* 'NUM:10' or *ort-* 'NUM:9' and the bound numeral root *–ak* 'two', which has been reduced to *-k*.

(81)   *érs.ka*   [ɛɾsk] ~ [ɛ́ɾska]   'NUM:6-two'
                  órs.ka   [oɾsk] ~ [óɾska]   'NUM:10-two'
                  órt.ka   [oɾtk] ~ [óɾtka]   'NUM:9-two'

A few unusual word structures which contain word-initial syllables with consonant clusters in the coda position have been observed. These are possibly fused phrases, parsed as *m-ebs(a)-(o)t-a* (NR-white-stand-PGE) 'white stuff is' and *ebs/efs(a)-ka –ir* (hub-near-PL) 'central near ones'.

(82)   CVCC.CV   *mébs.ta*   'sand'
        VCC.CVC   *ebs.kîr*   '(close) relatives'

2.2.1.2 Running speech forms

An extremely common phenomenon in regular running speech is the elision of an unaccented root-final /a/. These truncated forms occur when connected to other forms (i.e. rarely in isolation), similar to the elision phenomenon also observed in the process of reduplication (§2.4.2), cliticization (§2.5.1.3) and the attachment of the suffixal part of the reciprocal circumfix (§2.5.1.4).

In roots with the structure VC.C*a*, in which the coda of the first syllable is filled by an approximant, the final /a/ may be elided to yield the running speech syllable (C)VCC, as illustrated in (83).

(83) *éy.ja*   [ɛ́jd͡ʒa]   >   [ɛ́jd͡ʒ]   'go (to)'
      óy.ka   [ójka]   >   [ójk]   'dance'
      ów.ra   [ówɾa]   >   [ówᵏ]   'cross through'

In roots which have the structure VC.C*a,* the unaccented /a/ may be deleted in running speech if a voiceless consonant occurs in the onset of the second syllable, resulting in the running speech structure VCC, as in:

(84) *of.ca*   [óɸt͡ʃa]   >   [óɸt͡ʃ]   'to puff'
      ob.sa   [óbsa]   >   [óbs]   'wipe off'
      om.ha   [ómxa]   >   [ómx]   'snore'
      ok.sa   [óksa]   >   [óks]   'turn over s.t.'
      ah.ta   [áxta]   >   [áxt]   'black(ness)'

Those roots with the shape VC.C*a* which have a consonant which is not an approximant in the coda slot of the first syllable and have a voiced consonant occurring in the onset of the second syllable may not be reduced to VCC. An elision would result in forms which are unacceptable, marked with '*' in (85).

(85) *áh.da*   *ahd   'itch' / 'irritate'
      ój.ga   *ojg   'originated'
      és.ba   *esb   'uncover' / 'reveal'
      ér.ma   *erm   'stir'

Monomorphemic roots which have the internal structure (V).CVC.C*a,* are unaffected by the restrictions placed on roots which have a root-initial VC syllable type. The root-final /a/ may be elided, yielding a form with the structure (V).CVCC.

(86) *mer.ga*   [mɛ́ɾga]   >   [mɛ́ɾg]   'wood'
      máy.na   [májna]   >   [majn]   'loincloth'
      mah.ta   [máxta]   >   [maxt]   'ink' (black stuff)
      e.fem.ja   [ɛɸɛ́md͡ʒa] >   [ɛɸɛ́md͡ʒ]   'root hair'

Root-final vowels, such as /e/, /o/, or /i/, or roots where the final /a/ carries the accent, do not undergo final-vowel elision, as in:

(87) *ámsi*   'silently'   *ófri*   'spicy'
      ébri   'crack'   *está*   'fork (in branch)'
      eckî   'two days ago'   *éke*   'collide'

Roots which have the internal structure CV. *a*, such as the free pronouns *bú.a* 'you.SG' and *yú.a* 'you.PL', do not undergo elision of the final /a/ in running speech.

2.2.1.2.1 Elision of /w/

In running speech, an intervocalic voiced labial /w/ (or sometimes /b/) is frequently elided, reducing the root by a syllable, (i.e. a two syllable root is reduced to a single syllable or a three syllable root to two syllables). This occurs in roots with the root-initial structure (C)V*w*.VC or (C)V.*b*VC, in which identical vowels, such as /e/ or /o/, or more rarely /u/, occur as nuclei in each syllable. The resulting vowel sequence is articulated as a long vowel, which functions as the nucleus of the syllable.

(88)   *buwún*   [buwún] reduces to [buˑn]
          'you.SG'

(89)   *mebét(a)*   [mɛβɛt] ~ [mɛwɛ́t] reduces to [mɛˑt]
          'squash'

(90)   *owókca*   [owókt͡ʃa] ~ [óˑkt͡ʃa]
          'subunit'

2.2.1.2.2 Paragoge -*a*

All words which do not have a root-final /a/, when given in citation form and occasionally in running speech, may have the paragoge vowel /a/, or more rarely /e/, added to the end of the word, noted as –*a* 'PGE' in examples. However, the addition of a paragoge /a/ does not change accent placement or meaning, and the paragoge –*a* never carries an accent. It is distinctive, in that, no other vowel (i, o or u) may be added to roots in a manner which does not convey meaning change. These other vowels function as grammatical markers: such as -*i* 'PROT' and –*o* 'EMP' indicating speaker attitude, or -*ey* [e] 'Q', an enclitic marking polar questions.

2.2.2 Consonant sequences

There are no consonant clusters which occur in the canonical syllables of Moskona. All consonant sequences occur across syllable boundaries.

2.2.2.1 Consonant sequences across syllable boundaries

Table 2.4 gives a summary in chart form of the consonant sequences which have been observed to occur across syllable boundaries. Geminate sequences do not occur, but homorganic sequences may. Examples of all types of sequences are given, meaning that those sequences which are rare, such as those found only in one or two words, are included along with those occurring more frequently. Examples of the types of consonant

sequences which occur across syllable boundaries may be seen in the data given in (91 – 105).

Table 2.4 Consonant sequences across syllable boundaries

C2→ / C1↓	t	k	b	d	g	c	j	f	s	h	m	n	r
t		tk	-	-	tg	-	-	tf	-	th	tm	tn	tr
k	kt	-	-	-	-	kc	-	-	ks	-	km	-	kr
b	-	bk	-	bd	bg	bc	bj	-	bs	-	-	bn	br
d	-	-	-	-	dg	-	-	-	-	-	dm	dn	dr
g	-	-	-	gd	-	-	-	-	-	-	-	gn	gr
c	-	ck	-	-	cg	-	-	-	-	ch	cm	-	cr
j	-	-	-	-	jg	-	-	-	-	-	jm	jn	jr
f	ft	fk	-	fd	fg	fc	fj	-	fs	-	fm	fn	fr
s	st	sk	sb	-	sg	-	-	sf	-	sh	sm	sn	sr
h	ht	hk	-	hd	hg	hc	-	-	hs	-	hm	hn	hr
m	mt	mk	mb	md	mg	mc	mj	-	ms	mh	-	mn	mr
n	-	-	-	nd	ng	-	-	-	-	nh	-	-	-
r	rt	rk	-	rd	rg	rc	rj	rf	rs	rh	rm	rn	-

Consonant sequences

(91)	/t.k/	*et.kéb.ra*	'short'
	/t.g/	*mót.gus*	'middle of night'
	/t.f/	*e.te.fa*	'wet'
	/t.h/	*ét.ha*	'join (a bridge)'
	/t.m/	*ét.ma*	'arm'
	/t.n/	*e.tît.na*	'pilfer'
	/t.r/	*ót.ra*	'flip forward'
(92)	/k.t/	*ók.ter*	'encircle'
	/k.c/	*o.fók.ca*	'gather'
	/k.s/	*ék.sa*	'shoulder'
	/k.m/	*úk.mor*	'k.o. poisonous snake'
	/k.r/	*ék.ris*	'exceed'
(93)	/b.k/	*eb.ké.rek*	'crack open'
	/b.d/	*éb.da*	'knead'
	/b.g/	*éb.ga*	'torn'

	/b.c/	*mib.ca*	'gourd'
	/b.j/	*e.géb.ja*	'curse at'
	/b.s/	*eb.sî.ta*	'infertile'
	/b.n/	*a.hab.nîna*	'few'
	/b.r/	*éb.ra*	'spread over'

(94)	/d.g/	*ód.gak*	'torso'
	/d.m/	*éd.ma*	'light up'
	/d.n/	*éd.nem*	'healthy'
	/d.r/	*o.fód.reg*	'framework'

(95)	/g.d/	*móg.der*	'parakeet'
	/g.n/	*óg.nunui*	'many'
	/g.r/	*óg.ri*	'straight'

(96)	/c.k/	*éc.kef*	'escape'
	/c.g/	*móc.ga*	'mortar'
	/c.h/	*móc.ha*	'k.o. tree'
	/c.m/	*móc.mir*	'earthquake'
	/c.r/	*móc.ra*	'hunger'

(97)	/j.g/	*éj.gen*	'know'
	/j.m/	*éj.meg*	'spine'
	/j.n/	*ój.nif*	'outer limit'
	/j.r/	*méj.red*	'kapak'

(98)	/f.t/	*óf.tet*	'scenic'
	/f.k/	*ófka*	'urge'
	/f.d/	*éf.dec*	'spread'
	/f.g/	*yéf.gah*	'you.DU innocent'
	/f.c/	*óf.ca*	'puff'
	/f.j/	*méf.jef*	'k.o. biting ant'
	/f.s/	*éf.sa*	'white'
	/f.m/	*móf.meg*	'k.o. cloth'
	/f.n/	*méf.nef*	'crow'
	/f.r/	*of.rá.ha*	'green'

(99)   /s.t/   *és.tak*   'butt'
              /s.k/   *és.ka*   'sting'
              /s.b/   *e.sés.ba*   'carve'
              /s.g/   *es.gén.ga*   'sour'
              /s.f/   *ós.fa*   'leap'
              /s.h/   *mós.hu*   'frog'
              /s.m/   *és.ma*   'take by force'
              /s.n/   *ós.nok*   'person'
              /s.r/   *es.ró.gu*   'fall by itself'

(100)   /h.t/   *áh.ta*   'black'
              /h.k/   *áh.ka*   'scrape'
              /h.d/   *áh.da*   'itch'
              /h.g/   *táh.gur*   'four'
              /h.c/   *móh.ca*   'man-made hole'
              /h.s/   *óh.sa*   'emerge'
              /h.m/   *óh.mef*   'tear loose'
              /h.r/   *óh.rom*   'be quick'

(101)   /m.t/   *óm.ta*   'demand publicly'
              /m.k/   *óm.ka*   'sleep deeply'
              /m.b/   *ém.ba*   'rotten'
              /m.d/   *óm.da*   'mate (of set)'
              /m.g/   *óm.ga*   'blurry'
              /m.c/   *mogóm.ca*   'rocky'

(102)   /m.j/   *mîm.jah*   'rainbow'

(103)   /m.s/   *ám.sa*   'silent'
              /m.h/   *óm.ha*   'snore'
              /m.n/   *óm.nin*   'aim at'
              /m.r/   *tóm.rer*   'exposedly'

(104)   /n.d/   *e.fén.da*   'dense'
              /n.g/   *én.git*   'make'
              /n.h/   *me.rén.ha*   'storm'

(105)   /r.t/   *mór.toh*   'island'

           /r.k/   *or.késa*   'joint'

           /r.d/   *o.fór.dor*   'liver'

           /r.g/   *ér.ga*   'left (side)'

           /r.c/   *fér.cin*   'spices'

           /r.j/   *ár.ja*   'female fish'

           /r.f/   *e.jér.fa*   'splash out'

           /r.s/   *ér.sa*   'slice'

           /r.h/   *or.húsa*   'drag s.t.'

           /r.m/   *kár.mom*   'thick metal'

           /r.n/   *ór.na*   'man'

2.2.2.2 The mbr sequence

Although the consonant sequence /mbr/ occurs in normal speech, it appears that the voiced bilabial stop /b/ has evolved as the voiced transition between the bilabial nasal /m/ and the flap /r/. Native speakers perceive the presence of a voiced bilabial stop in the sequence and consider it to be integral to the root. But to consider mbr as a licit consonant sequence would produce the syllable type CVCC, which has been observed to occur word-finally in running speech forms, but not word-medially. Therefore, although the /b/ of the /mbr/ sequence will be written in this grammar, syllable structures containing the sequence are not included in possible word structures. The sequence /mbr/ may be observed in only a few words, such as:

(106)   *me.rémb.rah*   'rainforest'

           e.fémb.ra   'flank'

           o.fómb.ra   'lung(s)'

2.2.3 Vowel Sequences

There are no phonemic vowel sequences within syllables. All vowel sequences occur across syllable boundaries.

2.2.3.1 Vowel sequences across syllable boundaries

All instances of vowel sequences across syllable boundaries involve accent placement on the second vowel of the sequence, indicating separate syllables. There is only one type of geminate vowel sequence /e.e/. Examples of these vowel sequences are given in Table2.5.

Table 2.5 Vowel sequences across syllable boundaries

V₂ / V₁	i	e	a	o	u
i	-	ie	ia	io	ue
e	-	ee	-		-
a	-	-	-	-	-
o	-	-	-	-	-
u	ui	ue	ua	uo	-

Vowel sequences

(107)   /i.e/   *me.si.éw*   'comb'
        e.fi.éyja   'ready-to-eat'

(108)   /i.a/   *e.fi.áh(ta)*   'very sharp'

(109)   /i.o/   *mes.ki.óm.ka*   'scorpion'
        o.si.ó.ma   'play'

(110)   /u.e/   *e.du.éc*   'trade a child'
        me.ju.én   'crocodile'

(111)   /e.e/   *né.esa*   'not yet'
        mé.esa   'enemy'

(112)   /u.i/   *e.fé.yu.i*   'immature-DIM'
        mó.ku.is   'k.o. mushroom'

(113)   /u.a/   *bu.ás.ra*   'your.companions'

(114)   /u.o/   *e.jú.o*   'flicker'
        e.su.ója   'navel' / 'umbilical cord'

2.3 Pitch accent system

Pitch accent systems have a position somewhere between tone systems and stress systems. In tone languages, the tones (pitches) are linked to the segmental structure of a word lexically or by rules. In stress systems, the intonation (pitch pattern) is lined up with certain accented syllables in a sentence (Hendriks 1996:202). Pitch accent systems have tones which are lined up with the segmental structure of a word, but affect only the accented structures in a word.

Pitch accent systems have been well documented in New Guinea languages (Hendriks 1996:201). Foley (1986:63) states that the vast majority of Papuan languages have a contrast between a high and a low tone, suggesting a contrast between accented and unaccented syllables, rather than a tonal contrast. The languages within the eastern Bird's Head area are a range of suprasegmental systems. At one end of the suprasegmental spectrum, Abun (Berry and Berry 1999) and Mpur (Odé 1996) have lexical tone. At the opposite end, Hatam has metrical stress (Reesink 1999) and Maybrat lexical stress (Dol 1999). Moskona, Meyah (Gravelle 2004:44) and Sougb (Reesink 2002b:194) have pitch accent systems.

There are two types of pitch accent systems. Spreading systems in which one of the tones in a melody is linked to an accented syllable with the melody spreading out over the word. The other type is a culminative system in which a high tone is linked to an accented syllable, while other syllables of the word have low or neutral tone, the accent functioning like the main stress in a stress system (Hendriks 1996:203). The type of pitch accent system employed in Moskona is the 'culminative' system, in which accented syllables are contrasted with unaccented syllables by their higher pitch. There is a single tonal contrast, with high tone occurring on every accented syllable. If the pitch on the accented syllable is always high, the pitch on other syllables tones is more or less predictable once the location of the accent is specified.

Accented syllables will be indicated by an acute accent mark, as in *edá* 'then'. The absence of an acute accent mark indicates a non-accented syllable. In subsequent chapters, only those roots in which accent is not predictable will be marked.

2.3.1 Acoustic and perceptual correlates of accented syllables

The acoustic graphs given in this section are photographs of the waveform or sound wave graphs generated by the acoustic program.[7] Horizontal dimension indicates time, measured in milliseconds (ms). Amplitude in the sound wave graphs correlates with loudness. The frequency range, displayed along the vertical axis, is between 50 to 240 Hz, although the range of the speaker is between 100 to 240 Hz.

In the lower graphs in each figure, pitch is measured on a logarithmic scale in semitones (st), which are musical intervals, (i.e. 12 semitones to an octave), roughly corresponding

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[7] The figures are photographs of the output of the software Speech Analyzer 2.7 developed by JAARS ITS, Waxhaw, NC and copyrighted by SIL International.

to human pitch perception. Semitones are used for comparison, as the absolute values of fundamental frequencies for individual speakers are not as relevant to analysis of tone as is the difference between pitches. Thus, semitones yield a more valuable measurement. Graphs of utterances are divided into syllables, with boundaries indicated with vertical lines. On the top of each graph is a phonemic representation of that syllable.

A change of pitch is the main component of accent, giving it relative perceptual prominence, although an accented syllable may be considered a composite of differences, that is, it is typically produced with more intensity or physiological effort than an unaccented syllable, with a higher pitch and usually greater duration than an unaccented syllable. In Figure 2.2 in the utterance *buhsud(a)* '2SG-search', the accented syllable *–sud* has higher pitch, longer duration and greater amplitude (loudness) than the unaccented syllable *buh-* with the lower pitch, shorter duration and lower intensity (amplitude).

Figure 2.2 Graph of *buhsúd(a)* '2SG-search'
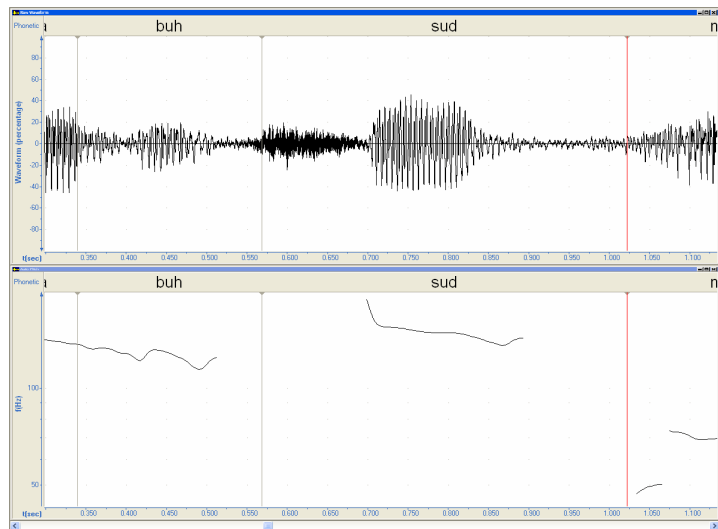
Figure 2.3. Graph of *bua bita* 'you.SG 2SG-take'
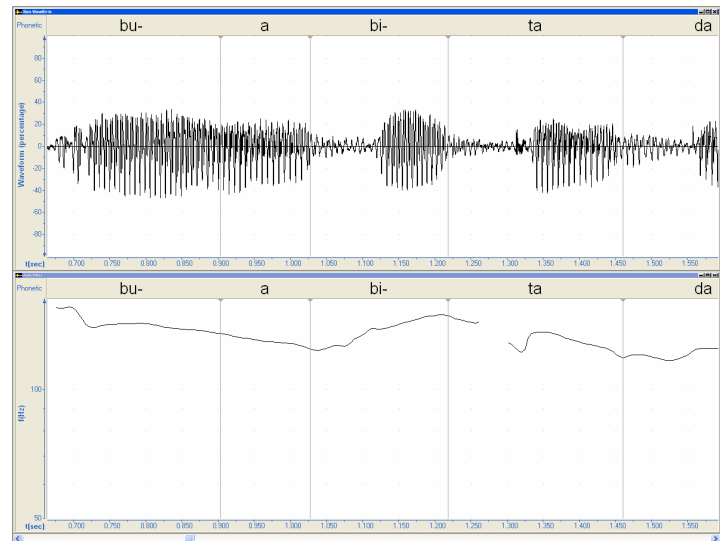
The degree of change in pitch may be great or only slight, such that amplitude may be a stronger indicator of accent. In Figure 2.3 the phrase *búa bíta* 'you.SG 2SG-take', the accented syllable *bu-* and the unaccented syllable *–a*, comprising of the pronoun *búa* 'you.SG', differ only by .6 semitones, but by a marked degree of amplitude. The accented syllable, *bi-* is shorter than the unaccented syllable *–ta*, in *bíta* '2SG-take'. Thus, duration does not always correlate with accent.

2.3.2 Accent placement

Moskona is a mixture of quantity-sensitive accent placement, that is, predictable placement, and lexical accent placement, meaning contrastive placement. For those roots on which placement of accent is predictable, the accent typically occurs on the penultimate syllable of the root with only one fixed accent per polysyllabic word. (Running speech forms retain accent placement.)

Accent on single syllable roots:

(115) *már*   'thing'   *míy*   'cloth'
       ég   'hear'   *óf*   'bite'
       óf   'fell (tree)'   *ók*   'flee'
       ní   'for'

Accent placement in two syllable roots:

(116) *óko*   'puncture'   *édi*   'push against'
       éra   'NEG'   *éke*   'collide'
       ébi   'defecate'   *éri*   'they.PL'

(117) *yú.a*   'you.PL'   *kú.a*   'tea'
       bú.a   'you.SG'

(118) *déci*   'slowly'   *mécu*   'nettleleaf'
       méru   'handle'

(119) *éyrir* 'vibrate'   *éfer*   'child'
       éfej   'hair'   *áhin*   'calm down'

(120) *óduy*   'crowded'   *ómuy*   'dull'
       ótuy   'tightly packed' *ónuy*   'gums'

Accent placement in three syllable roots:

(121) *edíder*   'level'   *mahîna*   'husband'
       egédid   'obstruct'   *ednórur* 'enervated'
       oysúra   'youngest child' *ofóga* 'cloud'

Many nominal forms which have lexical accent are fused forms of former phrases or compounds. Some of the morphemes are identifiable, but many others are not.

(122) *merém*   'forest'   *mesemók*   'water-spirit'
       meyméc   'barkcloth skirt'   *mítowmat* 'metal spear'
       mágamer   'metal griddle'   *márkien*   'small parrot

Frequently words which have lexical accent have a grammatical function, such as:

(123)   *edá* 'then'   *tiná* 'but'   *erá* 'THM'   *midá*   'what'
         ogurá 'no'   *erogá* 'hence' *tínefa* 'how'

2.3.2.1 Unaccented roots

There are roots which do not receive an accent, such as the preposition *rot* 'about' in Figure 2.4 and the verb *ek* 'see' in Figure 2.5.

Figure 2.4. Graph of *dif duduy osos rot-ey* '(if) I want (it)'
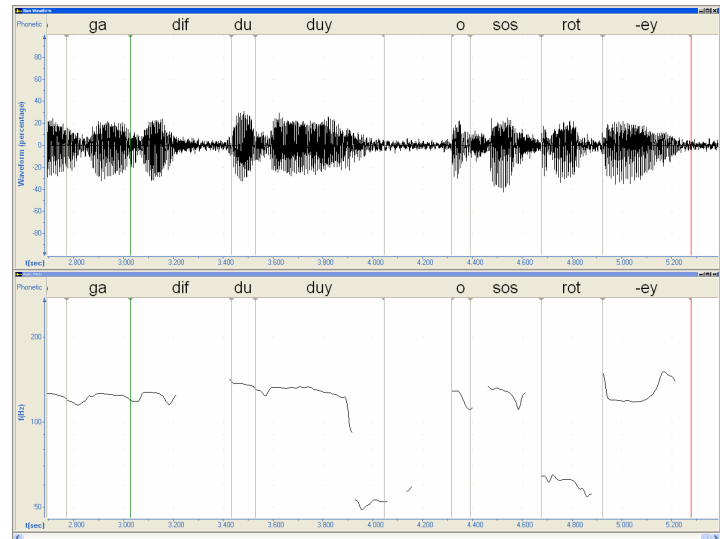
Figure 2.5. Graph of *dif dimek eri* 'I will see them'
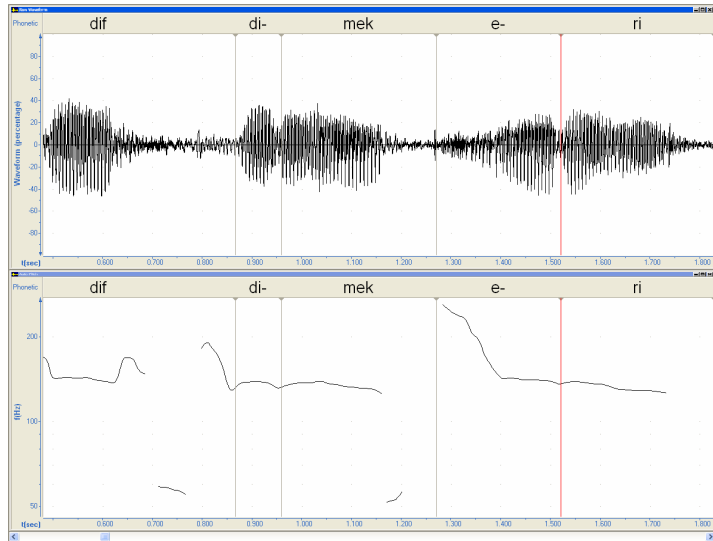
2.3.2.2 Accent placement in affixed forms

Verbal prefixes, including the circumfix, are unaccented and thus have low or neutral pitch, such as *y-* 'DU', *em-* 'IRR' in (124), and *i-* '3PL' and *em- -ima* 'RECIP' in (125).

(124)   *y-em-ókum-a*   [jomókuma]
         DU-IRR-heavy-PGE
         'they.DU would be serious'

(125)   *i-em-ogów-ima*   [umogówma]
         3PL-RECIP-chop
         'they.PL chopped each other'

In Figure 2.6, the attitude enclitic *–i* 'PROT', attached to the question word *tínefa* 'how', as the nucleus of the syllable /ti/, carries an accent and raises the pitch of the penultimate syllable. The enclitic *–o* 'EMP' does not carry an accent.

Figure 2.6. Graph of *(mar) tinefio* 'thing how?!'
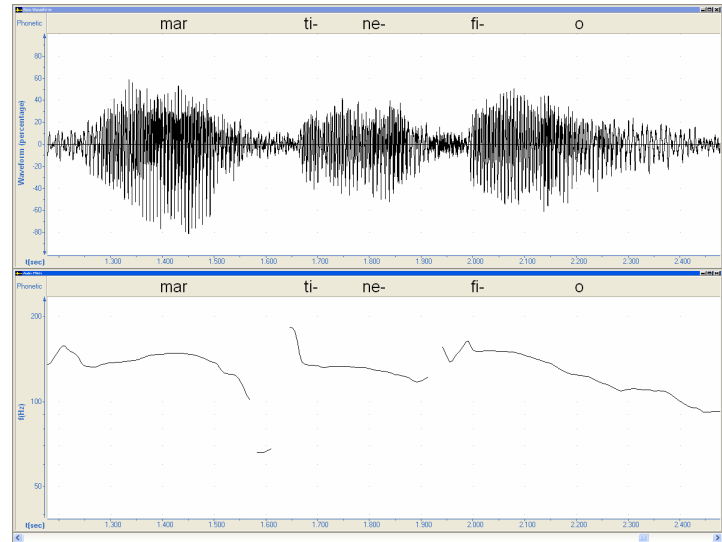
2.3.2.3 Accent in reduplicated forms

The reduplicants take an accent if the copied segment of the root carries an accent.

(126)   VC.CV   VC.CVC.CV   Gloss
         áhta   *áht-áhta*   'very blackened'
         óska   *ósk-óska*   'very small'
         ébga   *ébg-ébga*   'very torn'
         ómta   *ómt-ómta*   'very weary'

(127)   (V).CVC
         egés-gés(a)   'scrape'
         égu-égu   'drop intermittently.'
         éju-éju   'stalk repeatedly'
         tók-tók(a)   'all in one place'
         tóg-tóg(a)   'various'

(128)   V.CV.CV
         orówi-ówi   'endeavor repeatedly'
         (*er*)*egéj-géj(a)*   'wrap repeatedly'
         eféyu-éyu   'be many colored'

2.4 Reduplication

This section discusses the reduplication process, that is, the way that the reduplicative templates interact with the bases and some of the constraints on the process. This section is organized according to the syllable structure of the roots and the ways in which the various internal structures are affected by reduplication process. Single syllable roots will be presented in §2.4.1, followed by two syllable roots in §2.4.2, then three syllable roots in §2.4.3. Those reduplicants with a pre-specified feature will be presented in §2.4.4, followed a brief discussion of the few instances of multiple reduplication.

Reduplication is a morphophonological process in which a meaning change is made when a reiterated form or repetitive construction is added to a root (Moravcsik 1978:301). The reiterated (reduplicated) form or construction is itself an affix which carries grammatical meaning (Marantz 1982), but is distinct in form and function from other bound forms. The reduplication process may be characterized as the attachment of a template to a base. The base is a root. The template is a patterned sequence of consonants and vowels, which is independent of the syllabic patterns of the base to which the template attaches.

In Moskona, the roots which undergo reduplication may be composed of one, two, or three syllables and are usually verbal, although more rarely a noun may undergo reduplication. The reduplicated affixes, designated reduplicants, primarily express iterativity, duration and intensity of degree or quantity, and may be viewed as the operation of a single component, meaning something like multiplicity, as related to the features of quantity and intensity. Quantity and intensity are themselves related, in that the quantity of energy used may indicate the size of the effect (Moravcsik 1978:321). Discussion of the grammatical functions of reduplicants is presented in §3.2.3.

The template "associates" or copies phonemic segments from the base to fill the slots of the template (pattern sequence), such that the phonemic material which composes the reduplicant is identical in part to the phonemic material found in the base. It is the template, not the base structure, which determines what segments of the base are included. If a slot of the template has no segment to copy, (i.e. a consonant or vowel is not found in the base for that position), that position is null. Conversely, the root limits what the template may copy by the availability of its phonemes.

In Moskona, the VCVCV template copies phonemic segments from the base, beginning at the right-most segment and moving to the left. The reduplicated form, the reduplicant, attaches on the right, as reduplicative affixation in Moskona is suffixing. Reduplicated forms are indicated by the abbreviation 'RED' in interlinear glosses.

There are two general constraints which restrict the occurrence of consonant and vowel sequences. The first is a co-occurrence constraint regarding normal word formation and rules. All positions of the template have a pre-attached feature which disallows consonant and vowel sequences which do not occur naturally in the language, such as double consonants or other sequences not occurring across syllable boundaries in non-reduplicated roots. Phonological constraints force the omission of illicit segments until valid sequences are achieved. The second constraint restricts the possible structure of the resulting word. A reduplicant may not increase the number of syllables in a word by more

than one syllable. For example, a single syllable root may become a two syllable word, a two syllable root may become a three syllable form. Greater increases produce ungrammatical forms.

2.4.1 Monosyllabic bases

VC roots

The minimal reduplicative base is a one syllable root, which is always a closed syllable. Only single syllable roots with the structure VC undergo reduplication. The base is completely reduplicated as no violations of sequencing constraints occur. Three positions of the template are unfilled.

(129)   om   +   V   C   V   C   V   >   V.CVC
                        Ø   Ø   o   m   Ø   o.mom

(130)   *ec-ec*   [ɛ́t͡ʃɛ̀t͡ʃ]   'press on continuously'
              ef-ef   [ɛ́ɸéɸ]   'wrap up repeatedly'
              er-er   [ɛ́ɾɛ́ɾ̥]   'stir repeatedly'

              om-om   [ómóm]   'enclose continuously'
              or-or   [óɾóɾ̥]   'hold continuously'
              os-os   [ósós]   'move horizontally repeatedly'

2.4.2 Disyllabic bases

The disyllabic bases which are monomorphemic may have an open syllable root-finally, such as V.CV, CV.CV and VC.CV, or a closed syllable root-finally, as in V.CVC or VC.CVC.

V.CV roots

In roots which have the structure V.CV, reduplication of the root yields a three syllable word. No illicit sequences prohibit the complete reduplication of the base. Two positions of the template are unfilled. When the reduplicant attaches, the root-final /u/ functions consonantally in the vowel sequence /u/ plus non-high vowel to form a single syllable, such as /we/ or /wo/.

(131)   é g u   +   V   C   V   C   V   >   V C. CV.CV
                          Ø   Ø   e   g   u   e g. w e.g u

(132)   *egu-egu*   [ɛ́gwɛ́gu]   'drop intermittently'
              ogu-ogu   [ógwógu]   'plop intermittently'
              etu-etu   [étwétu]   'drip intermittently'

eju-eju	[ɛd͡ʒwɛ́d͡ʒu]	'stalk repeatedly'
eru-eru	[ɛ́ɾwɛ́ɾu]	'peel in strips repeatedly'

V.CVC roots

In two syllable roots with the syllable structure V.CVC, the left-most vowel position of the template is not filled, as copying it would increase the affixed form to four syllables V.CV.CV.CVC, such as *egeseges. The licit word has the three syllable structure V.CVC.CVC. Accent occurs on the root and the reduplicant.

(133)   e   g   e   s   +   V   C   V   C   V   >   V.CVC.CVC
                                       Ø   g   e   s   Ø   e. g e s. g e s

(134)   *eges-ges*   [ɛgɛ́sgɛ́s]   'very high'
         eref-ref   [ɛɾɛ́ɸɾɛ́ɸ]   'wind around repeatedly'
         etef-tef   [ɛtɛ́ɸtɛ́ɸ]   'waterlogged'
         ohas-has   [oxásxás]   'hop repeatedly'
         ogur-gur   [ogúɾgúɾ̥]   'repeatedly cry in pain'
         eweg-weg   [ɛwɛ́gwɛ́g]   'dribble'
         ewer-wer   [ɛwɛ́ɾwɛ́ɾ̥]   'repeated crossing'

Some roots with a V.CVC pattern which have a labial consonant as the second segment allow only the final two segments of the root to be copied. Possibly due to co-occurrence constraints on consonant sequences, such as /f.f/, /jf/, /gf/, /t.w/, /r.r/, or /s.s/ which do not occur across syllable boundaries, as in (136a), or the initial VC segments are possibly a fused prefix, as in (136b).

(135)   e   f   e   r   +   V   C   V   C   V   >   V.CV.CVC
                                       Ø   Ø   e   r   Ø   e. fe. r e r

(136)   a.   *ofof-of*   [oɸóɸóɸ]   'run repeatedly'
             ofoj-oj   [óɸod͡ʒod͡ʒ]   'very blunted'
             ofog-og   [óɸogog]   'very sharp/evil'

        b.   *efej-ej*   [ɛ́ɸɛd͡ʒɛd͡ʒ]   'many dried (things)'
             efer-er   [ɛ́ɸɛɾɛɾ̥]   'many sores'
             ewek-ek   [ɛ́wɛkɛk]   'many bumpy (things)'
             owot-ot   [ówotot]   'many overflowing (things)'
             ofor-or   [óɸoɾoɾ̥]   'many dehyrated (things)'

CV.CV roots

In two syllable roots with the structure CV.C*a*, the entire base is copied, but the final /a/ segment of the base undergoes syncope before the reduplicant is attached. For purposes of clarity, the final /a/ of the reduplicant is retained in examples, but is rarely uttered in running speech.

(137)   t   o   k   a   +   V   C   V   C   V   >   CVC.CV.CV
                                        Ø   t   o   k   a   t o k. t o. k a

(138)   *toka-toka*   [tóktóka]   'bit by bit'
            toga-toga   [tógtóga]   'various'
            roga-roga   [ɾógɾóga]   'right away'

The two syllable root *deci* with the structure CV.CV does not have /a/ as the final segment and does not lose the final vowel. Three positions of the template are unfilled, as the structural constraint disallows the addition of more than one syllable. Thus four syllable forms, such as **de.ci.e.ci* or **de.ci.de.ci*, do not occur.

(139)   C   V   C   V   +   V   C   V   C   V   >   CV.CV.CV
         d   e   c   i   Ø   Ø   Ø   c   i   d e. c i. c i

            deci-ci   [dečĩtʃĩ]   'very slowly'

VC.CV roots

In bases which have the structure VC.C*a*, the entire base is copied, but one position of the template is unfilled as the base has no vowel for that position. The root-final /a/ undergoes syncope before the reduplicant is attached. The final consonant of the base combines with the initial two segments of the reduplicant to produce a closed syllable, that is, a CVC syllable. The resulting word has three syllables.

(140)   a   h   t   a   +   V   C   V   C   V   >   VC.CVC.CV
                                        a   h   Ø   t   a   a h. t a h. t a

(141)   *ahta-ahta*   [áxtáxta]   'very blackened'
            etka-etka   [étkétka]   'very near'
            omha-omha   [ómxómxa]   'snore repeatedly'
            omta-omta   [ómtómta]   'very weary'
            ebga-ebga   [ébgébga]   'very torn'
            oska-oska   [óskóska]   'very small'
            ofga-ofga   [óɸgóɸga]   'bloody'

| | *okra-okra* | [ókɾókɾa] | 'grating sound' |

Roots with the structure VC.C*a* which do not have /a/ as the word-final segment, do not undergo syncope of the final segment, nor does the complete VCVCV template copy, as it would produce a word form which would increase the word by more than one syllable, such as *oskioski.

(142)   *oski-ki*   [oskíkí]   'very bitter'

VC.CVC words

The reduplication process in VC.CVC words produces geminate sequences which are illicit, such as /rr/. Thus, those positions on the VCVCV template are not filled, nor does the template copy the entire base, as it would produce ungrammatical forms, such as those marked with (*).

(143)   e   f   r   i   r   +   V   C   V   C   V   >   VC.CV.CVC
                                 Ø   Ø   i   r   Ø   e f. ri. rir

(144)   *efrir-ir*   /ɛɸɾiɾíɾ̥/   'broken in many pieces'
         odror-or   /odɾóɾóɾ̥]   'many dangling (things)'

         efrir-rir
         odror-ror

2.4.3 Tri-syllabic bases

Tri-syllable bases have an open syllable in word-final position. Those roots which have an /a/ in word-final position undergo syncope of the final /a/ before the reduplicant is attached.

V.CV.N*a* roots

In bases which have the structure V.CV.C(*a)* in which a nasal occurs in the onset of the final syllable of the root, that is, V.CV.N*a*, such as *e.ke.na* 'red', the nasal and the root-final /a/, undergo syncope before a reduplicant is attached.

(145)   o   k   u   m   +   V   C   V   C   V   >   V.C V.C V C
                             Ø   k   u   m   Ø   o. k u. k u m

(146)   *eke-kena*   [ɛkɛ́kɛ́na]   'many red (things)'
         esi-sim   [ɛsɪ́sɪ́m]   'fall over repeatedly'
         oku-kum   [okúkúm]   'many heavy (things)'

ofu-funa	[oɸúɸúna]	'twist back and forth'
osu-sum	[osúsúm]	'very small face (child)'
ofogu-gun	[oɸogúgún]	'many useless (things)'

V.CVC.C*a* roots

In bases with the structure V.CVC.C*a*, one position in the template is unfilled. The root-final /a/ undergoes syncope before the reduplicant is attached.

(147) o t u m b a + V C V C V > V.CVC. CVC. CV
                              o m Ø b a   o. t u m. b o m. b a

(148)
otumb-omba	[otúmbómba]	'very hollow'
erirk-irka	[ɛrírkírka]	'many yellow (things)'
ohosh-osha	[oxósxósxa]	'shake repeatedly'
mork-orka	[mórkórka]	'steeply inclined'

2.4.4 Templates with pre-specified features

Some templates may have pre-specified or pre-attached features which override the phoneme of the base in copying for the V or C slot.

2.4.4.1 Pre-specified high (front) vowel

For a very small group of roots, the template has the pre-associated feature [+hi] on the first vowel position. The reduplicant retains the frontness or backness of the vowel of the base, changing only its height. Only part of the template is used because the resultant reduplicant may not add more than one syllable to the root.

(149) a k s a + V[+hi] C V C V > V C.CVC.CV
                              i k Ø s a > a k. s i k. s a

(150)
ohes-is(a)	[oxésísa]	'agitate repeatedly'
okec-ic(a)	[okétʃítʃa]	'point out repeatedly'
aks-iksa	[áksíksa]	'many tall (things)'

2.4.4.2 Pre-specified consonant /m/

There is a special template for a reduplicant functioning as an intensifier, meaning something like 'most' or 'extremely', which typically occurs on adjectival roots. This template, -VCmV[-hi]CV, pre-specifies that the left-most consonant will be /m/ and the

vowels must be non-high.[8] These are what McCarthy and Prince (1995) call "fixed default segments", or what Marantz (1982:449) calls pre-specified phonemes. When the template associates with the base, the consonant of the base is preempted by the segment /m/, such as /k/ is pre-empted by /m/ in *oskukmok* in (151). The copied vowel retains the features of backness or frontness as in the base, but loses the feature of [+high], as /u/ in *oskuk* is copied as /o/ in the reduplicant *-moka*. This template is an exception to the size constraint imposed on other reduplicants, in that it allows two syllables to be added to the resulting form. The word-final /a/ of the base elides before the reduplicant is attached. The accent placement remains on the root.

If the left-most vowel position is unfilled, the reduplicant has the structure CVC(a).

(151)   o   s   k   u   k   a   +   V   C   V   C   V   >   VC.CVC.CV. CV
                                                   Ø   m   o   k   a   o s. k u k. m o. k a

(152)   *oskúk-mok(a)*   'very stiff'   *ahtúk-mok(a)*   'very dirty'
         rúd-mod(a)   'very ultimate'   *okorék-mek(a)*   'very sunken'
         sergés-mes(a)   'all at once'   *erîk-mek(a)*   'very yellow'
         aháys-mes(a)   'very hard'   *esén-men(a)*   'very distant'

The initial vowel of the reduplicant may undergo assimilation to agree with the closest root vowel, such as /o/ assimilates to /e/ as in *oftet-emet*.

(153)   o   r   j   u   m   a   +   V   C   V   C   V   >   VC.CV.CV.CV.CV
                                              o   j   u   m   a   o r. j u. m o. j u. ma

(154)   *ergés-emes(a)*   'only one'   *ejgég-emeg(a)*   'very quiet'
         ekés-emes(a)   'very clear (sky)'   *egerág-amag(a)*   'very weak'
         oftét-emet(a)   'very scenic'   *ofráh-amah(a)*   'bright green'
         orjúm-ojum(a)   'many slender (things) *osáh-amah(a)*   'very lonely'

         eskéyr-amer(a)   'very clear (water)'   *kósk-amok(a)*   'very well'
         enîr-amer(a)   'bright blue'   *ohúrk-amok(a)*   'very perfect'

In some words, /a/ alternates with /o/, perhaps indicating that the form is regularizing.

(155)   *óys-amos(a) ~ óys-omos(a)*   'very finished'
                 ótk-amok(a) ~ ótk-omok(a)   'very tasty'

---

[8] In the word *ohas-mes* 'hop fast', it appears the reduplicant for this form has regularized with the *–mes* suffixes found on many other roots ending in /es/. The other reduplicated form *ohas-has* 'hop repeatedly' conforms to the pattern of other words of similar root structure.

> *óyf-amof(a) ~ óyf-omof(a)*   'very good'
> *kósk-amok(a) ~ kósk-omok(a)*   'very well'

This group of words closely resembles the Meyah words which have undergone a nasal epenthesis (Gravelle 2004:64). They differ in that the Meyah forms involve a complete reduplication of the root, filling all positions in the template with the nasal *–m-* inserted, whereas the Moskona words have a consonant pre-associated with a slot in the template.

Meyah:

> *áhah-m-áhah*   'to pant'
> *aksa-m-aksa*   'very tall'

2.4.5 Multiple Reduplicants

The morpheme *ok,* one of the possible contractions of *oskayt*[9] 'small', may undergo reduplication multiple times, as in *etkebrokok*. Infrequently other adjectival verbs may undergo multiple reduplication, such as *osmomsumsa*.

(156)   *etkébr-ók-ók*   'many short (items)'
          eferi-ók-ók   'many small children'
          oskáyt-ók-ók(a)   'many small (things)'
          osm-óms-úmsa   'many strange (things)'

Once a base is reduplicated to signal plurality, it may be also reduplicated to signal intensity. Moravcsik (1978:312) notes that there are two possible kinds of meaning that may be reinforced by additional reduplication: emphasis and continuity. In its abbreviated form, *ok* is attached to the reduplicated base *oska* 'small (item)' multiple times.

(157)   *osk-ósk(a)*   'many small (things)'
          osk-osk-ok-ok(a) 'very many small (things)'

2.4.6 Verb stems

Verb stems composed of root plus reduplicant may attach inflections or clitics, such as the circumfix *em- -im* 'RECIP' in (158), attached to the complex verb *edis-is* 'mismatch-RED', then cliticized by the distal enclitic *-ma* 'far' and its suffix *–i* 'GIV'.

(158)   *Midá noga em-edis-is-im(a)=ma-i?*
          what REL   RECIP-mismatch-RED=far-GIV
          'What is it which is different there?'

---

[9] The word *oskayt* 'small', a collapsed phrase composed of *oskay* 'small' and *tok* 'spot' or 'exact location', has many variant forms with multiple reduplicants.: *oskok ~ osk-osk ~ ok-ok ~ osk-ok-ok.*

The reduplication process occasionally may be used to derive a member of one grammatical category from another. A few adjectival verbs are derived from nouns, as in:

(159)   *éwek*   'bump'   *éwek-ek*   'bumpy' (many bumps)

       eféja   'dried'   *eféj-éj*   'grainy' or 'many dried things'

       ofókca 'gather'   *ofókc-ókca* 'gathered things'

       ofúga   'blood'   *ofg-ófga*   'bloody' (much blood)

There are words in which the basic form of the root is reduplicated, expressing continual or repetitive activity. A few examples are listed below:

(160)   *ofóf(a)*   (*of-óf*)   'run'

            ekíkif   (*ekí-kif*)   'turn away from' / 'avoid'

            okwókwa   (*okw-ókwa*)   'flap' / 'flutter'

            orúruy   (*orú-ruy*)   'unrestricted'

            eréwréw   (*eréw-réw*)   'sweat'

2.5 Morphophonemic processes

Morphophonemic processes involve the phonological changes which occur when morphemes are put together. For Moskona these processes primarily involve interaction between vowels at morpheme boundaries and may be subdivided into those processes which occur at morpheme boundaries when a bound form is attached to a free form, such as the attachment of prefixes and clitics, and those which occur at morpheme boundaries when free lexical forms are joined (e.g. compound formation). Those processes concerning the changes occurring with the attachment of bound forms will be presented first, followed by a discussion of the changes occurring in the joining of free forms.

2.5.1 Morphophonemic processes and bound forms

There are three morphophonemic processes which occur at the boundaries of roots and affixes. The first process is assimilation and concerns the attachment of three affixes to verbs. The second process is coalescence, and concerns the person-number prefixes which occur on verbs and inalienable nouns and the plural marker which occurs on nouns denoting humans along with some kinship terms. The third process is elision and involves some clitics and suffixes found in deictic morphology.

The reciprocal circumfix does not fall neatly into any one category of morphophonemic processes, and due to its phonological shape as a split morpheme, undergoes all three processes involving bound forms. However, in order to give a more cohesive presentation of the phonological changes which this morpheme undergoes, it will be discussed separately.

Phonetic forms will be given in brackets. Charts will be given at the close of each topic to show the phonetic realization of the various types of change which occur in verb words.

2.5.1.1 Assimilation

Assimilation is concerned with the influence of one sound on another and may be total, that is, complete assumption of phonological characteristics, or partial, such as one or two features of the influencing sound are adopted. Assimilation may also be categorized in terms of the location the influencing sound, that is, a change occurs because of the influence of a sound which follows (regressive or anticipatory assimilation) or a change occurs because of the influence of a sound which precedes it (progressive assimilation). A further factor involves proximity, whether the influencing sound is contiguous or not contiguous to the sound undergoing assimilation. All three of these distinctions are involved in describing the assimilation process in Moskona morphophonemics.

Prefixal assimilation

The vowel /e/ in the verbal prefixes *er-* 'CAUS', *em-* 'IRR' and *en-* 'DUR' undergoes non-contiguous regressive (anticipatory) assimilation, that is, the vowel /e/ in the prefixes partially assimilates to agree in backness with the initial vowel of the root. As all verbs in Moskona have the morphophonological characteristic of a root-initial non-high vowel: /e, o, a/, the assimilated prefixal vowel retains its height as a mid vowel. The vowel /e/ assimilates to /o/ when attached to roots with an /o/ initial segment, such as *ofjig* 'help' in (161). It remains /e/ when attached to roots with /a/ or /e/ root-initially, as in (162) and (163).

(161)   *er-ofjig*   [oróɸd͡ʒig]
         CAUS-help
         's/he (using s.t.) helps'

(162)   *en-ahada*   [ɛnaxáda]
         DUR-dismantle
         's/he is dismantling (something)'

(163)   *em-etaha*   [ɛmɛtáxa]
         IRR-yell
         's/he will yell'

If the verb root attaches more than one verbal prefix, such as the irrealis and causative prefixes, as in (164), or the durative and causative prefixes, as in (165), the vowel of each prefix will regressively assimilate to agree in backness with the initial vowel of the root, such as /e/ in *em-* and *er-* assimilates to /o/ as in (164). When attaching to a root with a root-initial front vowel, it remains /e/ , as in (165).

(164)   *em-er-oɟig*   [omoɾóɸd͡ʒig]
         IRR-CAUS-help
         's/he will help (using s.t.)'

(165)   *en-er-et*   [ɛnɛɾét]
         DUR-CAUS-eat
         s/he is eating (with s.t.)

Verb roots, such as *orsîki* 'slippery', *eyúk* 'crack open', *óɟig* 'help' and *óhas* 'hop', which have both front and back vowels, as well as, high and nonhigh vowels in the root, demonstrate that no set of (root) vowels (i.e. class of vowels) is involved in the assimilation of the affixes, thus the operation cannot be considered vowel harmony.

2.5.1.2 Coalescence

Coalescence is a fusion or merger of two phonemes into a single unit. In Moskona this involves pronominal prefixes and the plural suffix.

2.5.1.2.1 Pronominal prefixes

The pronominal prefixes (§5.1.5) which indicate subject on verbs and possessor on inalienable nouns contain the high vowel /i/ (with the exception of the dual prefix *y-*). The prefix vowel /i/ and the initial vowel of the root coalesce to form a vowel which has the height of the prefix vowel and the frontness or backness of the root vowel. Thus, the prefix vowel /i/, as in *di-* '1SG' or *mi-* '1PL', coalesces with the root-initial vowel /e/, as in *ek* 'see', illustrated in Table 2.6, or the root-initial vowel /a/, as in *ah* 'hack', illustrated in Table 2.8, to form /i/. The prefix vowel /i/ in *i-* '3PL' coalesces with the root-initial vowel /o/, as in *ok* 'carry', to form /u/, illustrated in Table 2.7.

When a pronominal prefix is attached to a verb root which has attached a causative, durative or irrealis prefix, the initial vowel of the affixed form coalesces with the prefix vowel. The paradigm in Table 2.6 illustrates assimilation and coalescence of the prefixes on the verb *ek* 'see'.

Table 2.6 The verb *ek* 'see' with irrealis and causative prefixes

Pers-Num	pron. prefix	phonetic realization	IRR *em-*	phonetic realization	CAUS *er-*	phonetic realization
1SG	di-ek	[dik]	di-em-ek	[dimɛ́k]	di-er-ek	[dɪɾɛ́k]
2SG	bi-ek	[bik]	bi-em-ek	[bimɛ́k]	bi-er-ek	[bɪɾɛ́k]
3SG	ø-ek	[ɛk]	ø-em-ek	[ɛmɛ́k]	ø-er-ek	[ɛɾɛ́k]
DU	y-ek	[jɛk]	y-em-ek	[jɛmɛ́k]	y-er-ek	[jɛɾɛ́k]
1PL	mi-ek	[mik]	mi-em-ek	[mimɛ́k]	mi-er-ek	[mɪɾɛ́k]
2PL	yi-ek	[jik]	yi-em-ek	[jimɛ́k]	yi-er-ek	[jɪɾɛ́k]
3PL	i-ek	[ik]	i- im-ek	[imɛ́k]	i-er-ek	[ɪɾɛ́k]

The paradigm in Table 2.7 illustrates the assimilation and coalescence of the irrealis and causative prefixes for the verb *ok* 'bear'.

Table 2.7 The verb *ok* 'bear' with irrealis and causative prefixes

Pers-Num	pron. prefix	phonetic realization	IRR em-	phonetic realization	CAUS er-	phonetic realization
1SG	di-ok	[duk]	di-em-ok	[dumók]	di-er-ok	[duɾók]
2SG	bi-ok	[buk]	bi-em-ok	[bumók]	bi-er-ok	[buɾók]
3SG	øok	[ok]	ø-em-ok	[omók]	ø-er-ok	[oɾók]
DU	y-ok	[jok]	y-em-ok	[jomók]	y-er-ok	[joɾók]
1PL	mi-ok	[muk]	mi-em-ok	[mumók]	mi-er-ok	[muɾók]
2PL	yi-ok	[juk]	yi-em-ok	[jumók]]	yi-er-ok	[juɾók]
3PL	i-ok	[uk]	i-em-ok	[umók]	i-er-ok	[uɾók]

Table 2.8 shows the assimilation and coalescence of prefixes on the verb *ah* 'hack', a root which has a vowel as its initial segment which is neither front or back.

Table 2.8 The verb *ah* 'hack' with irrealis and causative prefixes

Pers-Num	pron. prefix	phonetic realization	IRR em-	phonetic realization	CAUS er-	phonetic realization
1SG	di-ah	[díx]	di-em-ah	[dimáx]	di-er-ah	[dɪɾáx]
2SG	bi-ah	[bíx]	bi-em-ah	[bimáx]	bi-er-ah	[bɪɾáx]
3SG	ø-ah	[áx]	ø-em-ah	[emáx]	ø-er-ah	[eɾáx]
DU	y-ah	[jax]	y-em-ah	[jemáx]	y-er-ah	[jeɾáx]
1PL	mi-ah	[míx]	mi-em-ah	[mimáx]	mi-er-ah	[mɪɾáx]
2PL	yi-ah	[jíx]	yi-em-ah	[jimáx]	yi-er-ah	[jɪɾáx]
3PL	i-ah	[íx]	i-em-ah	[imáx]	i-er-ah	[ɪɾáx]

2.5.1.2.2 Plural marker

When the suffix –*ir* 'PL' attaches to nouns denoting humans, such as *ejewjena* or *amoka*, or to kinship terms, such as *ekoka*, *eduera*, or *mokesa*, the high front vowel /i/ coalesces with the final /a/ of the root to form /e/. The plural marker does not coalesce with the root-final vowels which are high, as in *mosu*, which has /u/ as a final segment.

(166)   *ekók(a)-ir*   [ɛkokéɾ̥]   *mosú-ir*   [mosuíɾ̥]
         father-PL   mother-PL
         'fathers (VOC)'   'mothers'

         amóka-ir   [amókɛɾ̥]   *i-ejéwjena-ir*   [id͡ʒɛ́wd͡ʒɛnéɾ̥]
         friend-PL   3PL-yg.woman-PL
         'friends'   'young women'

         m-ok-ésa-ir   [mokésɛɾ̥]   *ed-u-éra-ir*   [ɛduéɾɛɾ̥]
         NR-sib.s.s.-yg-PL   1SG-sib.op.s.-old.-PL
         'younger siblings of same sex'   'older siblings of the opposite sex'

2.5.1.3 Elision

Elision is the omission of sounds in connected speech. The attachment of an enclitic, whether deictic enclitics or attitudinal enclitics used in speech acts, brings about the elision of a root-final /a/, such as the suffix -*i* 'GIV' attached to the spatial deictic -*ma* 'far' in (167) or to the demonstrative pronoun *noma* 'that' in (168).

(167)   *mowos=ma-i*   [mowósmi]
         village=far-GIV
         'the village'

(168)   *no-ma-i*   [nómi]
         DNR-far-GIV
         'that (one)'

When the polar question marker *-ey* 'Q' is attached to the final element in a sentence, the root-final /a/ is elided, as in (168) and (169). Final segments of sentence-final elements which are not /a/, such as *enomi* in (170), are not elided.

(168)   *no-ma=ey*   [nómé]
         DNR-far=Q
         'that (one)?'

(169)   *Bua   bi-owha   éra   ogur(a)=ey?*   [oguɾé]
         you.SG   2SG-leave DSJ   no=Q
         'Are you leaving or no?'

(170)   *Eri   i-owha   e-no-ma-i=ey?*   [ɛnómié]
         they.PL 3PL-leave   FOC-DNR-far-GIV=Q
         'They left then (at that time)?'

When explicit attitude markers *–i* 'PROT' or *-o* 'EMP' are attached to a sentence-final element, the root-final /a/ is elided.

(171)   *gur(a)=i*   [guɾí]
         NEG=PROT
         'not (!)'

(172)   *m-eyj(a)=o*   [médʒo]
         NR-THITHER=EMP
         'there (far away)'

When the deictic prefixes *i-* 'VIS' and *u-* 'NONVIS' are attached to the directional enclitics *en* 'HITHER' and *eyja* 'THITHER' (§5.2.4), the initial /e/ [ɛ] or /ey/ [e] of the enclitic is elided.

(173)   *u-en*   'HITHER (nonvis)'   [un]
         i-eyj(a)   'THITHER (vis)'   [idʒ]

When the directional enclitics *en* 'HITHER' and *eyja* 'THITHER' are cliticized to elevational deictics *–ba* and *–da*, the root-final /a/ of the elevational deictic is elided.

(174) *i-ba=eyja*   'across away (vis)'   [ibéd͡ʒa]

      i-ba=en   'across toward (vis)'   [ibɛ́n]

The final /a/ of the relativizer *noga* is elided when the directional enclitics *en* 'HITHER' and *eyja* 'THITHER' (prefixed for visibility) are attached.

(175) *noga=u-eyj(a)*   '(the one) which is thither (nonvis)' [nogúd͡ʒ]

      noga=i-da=eyj(a) '(the one) which is up thither (vis)' [nogidéd͡ʒ]

2.5.1.4 Reciprocal circumfix *em- -ima*

The vowel /e/ in *em-* the prefixal part of the reciprocal circumfix *em- -ima* 'RECIP' undergoes non-contiguous regressive (anticipatory) assimilation exactly like the causative, durative and irrealis prefixes, that is, the vowel /e/ in the prefixes partially assimilates to agree in backness with the initial vowel of the root, as in (176) and (177). The vowel /i/ of *–ima* the suffixal part of the reciprocal may undergo assimilation, elision, or coalescence, depending on the syllable structure of the root, as well as the quality of the last vowel in the root.

Assimilation

The vowel /i/ in *–ima*, the suffixal part of the reciprocal marker *em- –ima*, assimilates to agree in backness with the last vowel of the verb in roots which have a consonant as the final segment. If the last vowel of the root is a front vowel, such as *oʄig* (176), the suffixal vowel will be /i/; if the last vowel of the root is a back vowel, as in *odoc* 'meet' (177), the suffixal vowel is realized as /u/.

(176) *i-em-oʄig-im(a)*   [umoɸd͡ʒígim]
      3PL-RECIP-help
      'they help each other'

(177) *i-er-em-odoc-ima*   [uɾomodót͡ʃuma]
      3PL-CAUS-IRR-meet
      'they met with each other'

Elision

If the final segment of the root is an approximant /w/ or /y/, such as *ogow* 'chop' in (178), the approximant plus /i/ sequence is reduced to the approximant, that is, the high vowel /i/ is elided. If the verb has a high vowel, /i/ or /u/, as the final segment, such as in *edi* 'push against' in (179), the /i/ of the reciprocal is elided.

(178)   *i-em-ogow-(i)ma*   [umogówma]
         3PL-RECIP-chop
         'they chopped (killed) each other'

(179)   *y-em-edi-(i)ma*   [jɛmɛ́dima]
         DU-RECIP-push.against
         'they (two) pushed against each other'

A verb root which ends in the vowel /a/ and has a voiceless consonant in the onset of the syllable, such as *efta* 'attach (to)' (180), the root-final /a/ will be elided and the reciprocal vowel /i/ remains.

(180)   *y-em-éfta-im(a)*   [jɛmɛ́ɸtim]
         DU-RECIP-attach.to
         'they (two) touch each other'

Coalescence

A verb root which ends in /a/ and has a voiced consonant in the onset position of the final syllable, such as *ega* 'exchange' in (181), the root-final /a/ coalesces with the /i/ of the suffix to form /e/.

(181)   *i-er-em-ega-im(a)*   [ɪɾɛmɛgɛ́m]
         3PL-CAUS-RECIP-trade
         'they exchanged with each other'

Table 2.9 and Table 2.10 illustrate the morphophonemic processes for the verbs *ek* 'see' and *oyok* 'swear at' when inflected for subject and reciprocal object.

Table 2.9 The verb *ek* 'see' with pronominal prefixes and circumfix

Pers-Num	RECIP *em- -im*	phonetic realization
1DU	y-em-ek-ima	[jɛmékima]
1PL	mi-em-ek-ima	[mimékima]
2PL	yi-em-ek-ima	[jimékima]
3PL	i-em-ek-ima	[imékima]

Table 2.10 The verb *oyok* 'swear (at)' with pronominal prefixes and circumfix

Pers-Num	RECIP *em- -im*	phonetic realization
1DU	y-em-oyok-ima	[jomojókuma]
1PL	mi-em-oyok-ima	[mumojókuma]
2PL	yi-em-oyok-ima	[jumojókuma]
3PL	i-em-ek-ima	[umojókuma]

2.5.2 Morphophonemic processes between free forms

This section concerns those phonological changes which occur when free lexical forms interact, including some fusional morphology which can be seen in compounds which fuse to form a new lexical entry.

2.5.2.1 Morphophonological reduction

A noun compound, composed of two unbound roots, a generic noun plus some type of modifier, may be reduced, producing a single phonological word which is a new lexical item. One or both roots may be reduced, depending on their phonological shape. The root-final /a/ (if present) on the first component is typically elided, such as *merga* in (182). The modifier component has the characteristic phonological shape V.CVC, such as *ewes* in (183) or *ewek* in (185). The root-initial vowels are always non-high and the consonants are always labial. The labial segment may be elided, such that the root-initial vowel and the second vowel (identical vowels) form a long vowel. Thus, in the second root the sequence V*w,* V*f,* or V*b* plus V is reduced to V·, a long vowel. In running speech, the resulting long vowel is frequently reduced further to a short vowel.

(182)   *merga   efej*   [mɛɾgɛ́·d͡ʒ]   'firewood'
        tree   dried

(183)   *miy   éwes*   [mijɛ́·s]   'clothes'
        cloth cavity

(184)   *miy   éwes*   [mijɛ́s]   'dugout'
        water cavity

(185)   *merga   éwek*   [mɛɾgɛ́k]   'seedpod'
        tree   globe

(186)   *mérga   ówos*   [mɛɾgɔ́s]   'bark'
        tree   skin

(187)   *miy   éwet*   [mijɛ́ˑt]   'riverbank'
        water semi-solid

(188)   *mar   ebáh(a)*   [maɾáˑx]   'insect'
        thing (a)live

Roots that end in the high vowel /i/ retain the vowel when another morpheme is attached, as in:

(189)   *eri-ej*   [ɛ́ɾid͡ʒ]   'they-female'
        they.PL-female

(190)   *meni   ówoh*   [mɛniɔ́x]   'banana flesh'
        banana   solid.interior

(191)   *efi-ah(ta)*   [ɛɸiáx]   'lush'
        leaf-black

(192)   *efi-etka*   [ɛɸiɛ́tka]   'sharp'
        leaf-split

2.5.2.2 Minor morphophonological processes

There are several minor morphophonological processes which are extremely limited, in that they apply to only a few words in a particular category. These processes are the alternation of a glided vowel with a simple vowel and metathesis of syllables.

Word-initially in a few verbs or inalienable noun roots, the sequence /ey/, realized phonetically as [e], has been observed to alternate with /e/ realized as [ɛ]. The alternation process has also been extended to roots with an /o/ initial segment, alternating /o/ and /oy/.

(193) *eycîra ~ ecîra*   'walk'   *osótka ~ oysótka* 'marry'

esírna ~ eysírna '(be) sick'   *ósut ~ óysut*   'imitate'

éytma ~ étma   'arm'

Metathesis

Metathesis is the alteration of the normal sequence of elements. There are a number of words which have been observed to undergo metathesis while retaining their original meaning. Two contiguous segments may be reversed or a sequence may be reordered. In all instances, only internal sequences are affected, that is, the initial and final segments of the root are not included in any metathesis. The first word in each set is the more frequently observed one.

Metathesis of segments

(194)   *é<u>ng</u>it ~ é<u>gn</u>it*   'make'

me<u>br</u>îsa ~ me<u>rb</u>îsa   'carpet of dried leaves'

Metathesis of sequences of segments

(195)   *e<u>bs</u>îta ~ e<u>sîb</u>ta*   'infertile'

a<u>kéb</u>ra ~ a<u>bké</u>ra   'startled'

o<u>fús</u>i ~ o<u>súf</u>i   'easy' / 'lightweight'

2.5.3 Loan words and adaptations

The verbalizer prefix *ebe-*, used to adapt words from Eastern Indonesian Malay into Moskona, yield stems as in (196). These verbs take most of the same verbal affixation as non-loan verbs.

(196) **stems**   **Malay**
       ebe-skóŕ   'attend school'/ 'study'   *sekolah* 'school'
       ebe-bîsa   '(be) able to'   *bisa*   '(be) able to'
       ebe-júar   'sell'   *jual*   'sell'

There are a very few verbs, such as *eráwan* 'rebel' in (197) from the Malay word *lawan* 'oppose', which are adapted with only the initial vowel /e/ of the verbalizer prefix.

(197) *Eri   i-em-**eráwan**.*
       they.PL   3PL-IRR-rebel
       'They would rebel.'   [D]

Nouns which are borrowed from Malay are usually adapted phonologically, then used without affixation as illustrated in Table 2.11.

Table 2.11 Adapted nouns

Moskona		**Malay**	
dáwr(a)	'cookhouse'	*dapur*	'cookhouse'
béti	'box or coffin'	*peti*	'crate'
god (és)	'ditch'	*got*	'gutter'
gúsin	'key'	*kunci*	'key'
héri	'helicopter'	*heli*	'helicopter'
jénder (éwes)	'window'	*jendela*	'window'
káju	'bean', 'peanut'	*kacang*	'bean'
(*mitów) kráwan*	'sword'	*kelawan(an)*	'opposition'
kasîna	'glass'	*kaca*	'glass'
sám (ofog)	'soap'	*sabun*	'soap'

2.6 Practical orthography

In describing the Moskona language, this grammatical description uses a phonemic orthography. It differs from the practical orthography in current use which employs some allophones in order to make a more seamless transition to the orthography of the national language, which is Bahasa Indonesia, a dialect of Malay. A few of the differences in the practical orthography are presented below.

The mid front vowel /e/ [ɛ] is written as <u>e</u>, consistent with the predominant use of the symbol in Indonesian.[10]

	phonemic	orthographic	
(198)	*emba*	emba	'rotten'
	eke	eke	'almost'

The velar nasal allophone [ŋ] is written as the digraph <u>ng,</u> as in (199), to conform to the presence of the phoneme /ŋ/, written as <u>ng</u> in Indonesian.

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[10] The Indonesian orthography uses 'e' for [ɛ] (as in *ekor* 'tail'), [e] (as in *besok* 'tomorrow'), and [ə] (as in *teman* 'friend').

(199)   *kerenga*   kerengga   'upon'
        modenka   modengka   'citrus'
        engaw   enggau   'crooked'

The approximants /w/ and /y/ are symbolized as <u>w</u> and <u>y</u> in word-initial and intervocalic positions, but as high vowels in syllable final position, conforming to the Indonesian orthography which symbolizes non-high vowel plus high vowel sequences as vowels only.

(200)   *yes*   yes   'two males'
        yet   yet   'they (DU) eat'
        eyorga   eyorga   'lower'
        éysaha   eisaha   'reach'
        mayna   maina   'loincloth'

        ewes   ewes   'cavity'
        etew   eteu   'much'
        owra   oura   'cross through'

In Table 2.12, the practical orthography as it is currently used in the Moskona language is shown.

Table 2.12 Moskona practical orthography

Phonemic representation	Allophonic representation	Orthographic representation

Consonants

/t/	[t]	t
/k/	[k]	k
/b/	[b,β, p]	b
/d/	[d]	d
/g/	[g, ɣ]	g
/c/	[t͡ʃ]	c
/j/	[d͡ʒ, t͡ʃ, ʃ]	j
/f/	[ɸ]	f
/s/	[s]	s
/x/	[x, h]	h
/m/	[m]	m
/n/	[n, ŋ]	n, ng
/r/	[ɾ, ɽ]	r
/w/	[w, β]	u/w
/y/	[j]	i/y

Vowels

/i/	[i, ɪ]	i
/e/	[ɛ]	e
/a/	[a]	a
/u/	[u, ø]	u
/o/	[o, ɔ]	o

Chapter 3
Major word classes

3.0 Introduction

Moskona noun and verb classes exhibit a number of the features which are also found in noun and verb classes in other East Bird's Head languages. Moskona verbs are characterized by the non-high vowels /e, o, a/ occurring root-initially, including adjectives which are a subclass of verbs, features which verbs in East Bird's Head languages share. Moskona alienable and inalienable noun classes are distinguished by possession strategy coupled with a distinctive morphological shape, as are alienable and inalienable nouns in other East Bird's Head languages (cf. Reesink 2002a:9) and some languages of the South Bird's Head family, such as Inanwatan (de Vries 2004:33).

This chapter provides a description of the two major word classes: nouns and verbs. The first section discusses nouns, which are presented in three subsections, common and proper nouns (§3.1.1), alienable and inalienable nouns (§3.1.1.1) and nouns denoting humans (§3.1.1.3). In §3.1.3, a survey of the various types of compound nouns completes the presentation of the noun class. The second half of the chapter presents the verb word (§3.2), starting with the verbal prefixes (§3.2.1) and continues through the subclasses of verbs: transitive (§3.2.2.1), ambitransitive (§3.2.2.2) and intransitive (§3.2.2.3). Functions of verbal reduplication are discussed in §3.2.3. The few verb compounds which have been observed are mentioned in §3.2.4.

3.1 Nouns

Nouns can be divided into five subclasses: common nouns, proper nouns, alienable nouns, inalienable nouns and nouns which refer to humans. There is some overlapping of the subclasses, as the criteria for the divisions involve two independent ways of categorizing nouns. One set of criteria involves syntactic properties, which form the basis for distinguishing common nouns and proper nouns. The second set involves possession strategy and morphological shape as the means for distinguishing alienable and inalienable nouns and for categorizing nouns which refer to humans.

3.1.1 Common and proper nouns

Common nouns may be categorized syntactically as those nouns which may be modified and possessed, that is, they may be the head of a noun phrase. Proper nouns are distinguished from common nouns as they are not possessed, nor may they be modified, but have the same distributional properties as noun phrases (e.g. as subject).

3.1.1.1 Common nouns

Common nouns may refer to any member of a class of entities (e.g. any dog, any tree or any house) and as mentioned above may be modified, such as the common noun *mod* 'house' is modified by the adjectival verb *eges* 'high' in (1), *mitow* 'machete' is modified by the numeral *orjis* 'one' in (2), *egak* 'leg' is modified by *éra* 'throbbing' in (3) and the common noun *eferiok* 'small child', which also denotes a human, is modified by the numeral *yergak* 'two' in (4). Possession for common nouns which are inalienable is marked by a prefix, such as the prefix *i-* '3PL' on *egak* 'leg' in (3). Possession for common nouns which are not inalienable is indicated by a possessive pronoun, such as *ofon* '3SGPOS' signaling the possessor of *yeferiok* 'small children' in (4), a common noun which refers to a human.

(1)   *Dif,   sis,   di-ebah* **mod** *eges...*
        I   past   1SG-live house high
        '[As for] me, long ago, I lived in a high house..'   [T14]

(2)   **mitow** *orj-i-es   i-er-oh   gug-a   mekew-eri*
        machete NUM:8-?-one 3PL-CAUS-give.out to-PGE   father-PL
        'a machete was given to our fathers (village elders)'   [T22]

(3)   (*mif*)   *mi-er-ojuj   i-**egak** éra*
        we.PL   1PL-CAUS-hire 3PL-leg throbbing
        'we paid them off [for] their aching feet'   [T14]

(4)   *of(a) erg-es   jera   ofon   y-**eferiok**   y-erg-ak*.
        s/he   NUM:1-one with   3SGPOS DU-sm.child DU-NUM:1-two
        'she with her two small children.'   [T19]

3.1.1.2 Proper nouns

Proper nouns are used to identify specific persons, landforms or geographical locations. Proper nouns are polymorphemic and are frequently phrasal, describing some identifying aspect of the referent. A child is named for some characteristic of his father or some event which occurred in his father's lifetime, in order that the person be easily identified with regard to his/her parent, also providing a way for the father to be remembered. Thus, all names identifying humans are phrasal, although they are usually shortened in conversation. Phrasal names, such as *Ikomejij* (5), *Ejiwarsa* (6) or *Itmokuah* (7) are restricted to use within the culture. Moskonas have adopted Malay Christian names (e.g. *Petrus*, *Yonas*, *Yohanas* or *Yahya*) for use with outsiders.

(5)   *I-oko-em-ejij*   (6)   *Ej-(e)i-wars(a)*
        3PL-foot-IRR-twist   female-3PL-slick
        'Their feet would twist'   'Women are bold'

(7)   *I-et-moku-(eb)ah*
       3PL-eat-mushroom-raw
       'They eat raw mushrooms'

Proper nouns which are names referring to groups of people are morphologically complex, the outcome of collapsed phrases. The noun *mos* 'people (group)', which has taken on the additional connotation of 'outsider'[11], is composed of the nominalizer *m-* fused to the inalienable noun *owos* 'skin', the initial VC segments of the noun having been elided in a process similar to that which forms nominal compounds (cf. §2.5.2.1). The inalienable noun *owos* 'skin', which frequently has the extended meaning 'body', has been extended further to mean 'people', similar in usage to the Sougb word *us* 'skin', which has the extended meaning 'relative' (Reesink 2002b:222). The name Moskona [moskóna], used primarily as a designation for the language group, may be composed of *mos* 'people', plus the spatial deictic *-ka* 'near' and the noun *o(r)na* 'man' or a metathesis of the consonants /n/ and /k/ in *no-ka* (DNR-near) 'this'. To designate other people groups, the noun *mos* has been cliticized to a few roots, the meanings and semantic associations of which are no longer identifiable. The accent falls on the root, rather than on *mos*. Three other groups designated through the cliticization of *mos* are:

Mos=mir	'Maybrat'	[mosmíɾ̥]
Mos=ui	'Sougb'	[mosuí]
Mos=ursa	'Hatam'	[mosúɾ̥sa]

The proper noun which denotes the Mpur people *Mo(s)=rum* [moɾúm] also appears to be a fused form of the noun *mos* 'people' with the segment /s/ elided, plus a root of indeterminate meaning. The noun *mos* is also used to identify other "outsider" groups, as in *mos macog* (people gun) 'soldiers' or 'police', *mos orna* (people man) 'outsider person' (e.g. Indonesian nationals) and *mos ogá* (people speech) 'outsider's language' (i.e. the Indonesian national language).

The proper noun referring to the people group immediately to the south of the Moskona area is *Marusum* 'South Coast People' [maɾúsum], a collapsed phrase *mar i-osum* (thing 3PL-nose) meaning 'mute ones', and is based on the phrase *osum ofoj ohra* (face blunted bare) meaning 'mute'. The inalienable noun *osum* 'nose' extends to mean 'face'. The *Marusum* were so called because in contact with the Moskona, they rarely spoke. The Meyah, immediately to the north, are called *Miyahir* [mijáxɪɾ̥], which is a collapsed form of the phrase *miy ah* (water lie) '[there] is water', pluralized with *–ir* 'PL'. *Miyah* 'Meyah' is the only name for a people group which attaches the plural marker.

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[11] The connotation of 'outsider' for the noun *mos* 'people group' has been extended to objects which are foreign or introduced, in which case the term *mos* functions attributively, occurring post-nominally. The adjectival verb *osmos* 'strange' or 'foreign' is a reduced form of *osum mos* 'face outsider', the phrase having weakened phonologically in the elision of the /u/ and /m/.

A noun referring to a people group may occur in the same position as a noun phrase, as does *Mosuí* 'Sougb' the object of *fen* 'from' in (8), or it may function attributively, such as *Mosursa*, the name for the Hatam people group, modifies *eri* 'they' in (9).

(8)   *Ofa   erá   en   fen   **Mosuí**.*
       s/he   THM   come from   Sougb
       'He came from the Sougb (people).'   [D]

(9)   *Osnok   no-ma-i   erá   eri   **Mosurs(a)**.*
       person   DNR-far-GIV   THM   they.PL Hatam
       'The person is a Hatam.'   [D]

Names of geographic locations or landforms are also phrasal, describing some aspect of the location, as is the name *Memeg(a) Iwari Ejmeg* 'Iwari's Spine Mountain' (10), named as the place of origin of the legendary cultural character, *Iwari*, (also known as *Ibori* in surrounding languages (Pouwer 1997:163)), or *Memeg(a) Armoda* 'Armoda Mountain', named for *Armoda*, another legendary ancestor of the Moskona. In the legend of *Isudga*, a mythic ancestor of the Moskona, the son of *Isudga* searches for him on the various river systems, traveling up tributaries of the *Isudga* River, which is named after this ancestor. These include *Miy Of-mer* '(He) fells ironwood River', *Miy En-inda* 'He-works-up-there River' (11), *Miy Otka* 'Pleasant River', *Miy Eninma* 'Shining River' and *Miy Eyja* 'Going River'.

(10)   *Memeg(a) Iwari Ejmeg*   (11)   *Miy   En-i-n-da*
        mountain Iwari spine   water do-VIS-?-up
        'Iwari's Ridge Mountain'   'He works up there River'

3.1.2 Alienable and inalienable nouns

Alienable and inalienable nouns are distinguished by their possession strategy and morphological shape. Possession of alienable nouns is expressed syntactically in a possession construction; possession of inalienable nouns is expressed morphologically by a pronominal prefix.

3.1.2.1 Alienable nouns

Those nouns which are canonical alienable nouns are not considered to be inherently part of a living entity (e.g. human, animal, or plant). As a result, possession of an alienable noun is an expression of the transitory nature of ownership, a temporary or non-essential dependence, and as such possession may be transferred. Possessive pronouns (§5.1.2) are required for the expression of possession of alienable nouns, such as the alienable noun *miy* 'water' preceded by the possessive pronoun *erin* '3PLPOS' in the possessive phrase *Erij erin miy* '(the) females' water' in (12), or the alienable noun *miyes* 'clothes' is

preceded by the possessive pronoun *buwun* '2SGPOS' in the possession phrase *buwun miyes* 'your clothes' in (13).

(12) *eri-ej   erin   **miy**   erá   ekenga.*
       they.PL-female   3PLPOS water   THM   restricted
       'the females' (drinking) water is prohibited.'   [D]

(13) *Merga   owot   em-er-ec   buwun   **miyes**.*
       tree   secretion   IRR-CAUS-press.on   2SGPOS clothes
       'The tree sap will press on (stain) your clothes.'   [D]

Alienable nouns, whether indigenous words or loan words, are not inflected. But those alienable nouns which are not recent loans are characterized by the segment /m/ fused to the root. This segment may be an old nominalizing prefix *m-*, a fossilized alienable noun class marker or as Reesink (2002a:9) has suggested for Meyah, a fossilized possessive prefix. A few examples of indigenous alienable nouns are given in the list below:

merah	'fire'	*mes*	'dog'
memega	'mountain'	*metrem*	'corn'
maw	'sun'	*muy*	'sweet potato'
mow	'land'	*merga*[12]	'wood'
miy	'water'	*mogosa*	'snake'
mogom	'stone'	*mitow*	'machete'
mot	'night'	*mudag*	'fly'
mosuna	'covered porch'	*mosnah*	'evening star' (planet)

A nominalizing process using *m-* as a prefix is not currently productive, but evidence for earlier use exists in the correspondence of a few verbs and alienable nouns. Adjectival verbs, such as *otgonog* '(be) dark', *aharga* '(be) dry' and *efsa* '(be) white' have corresponding nominal forms: *m-otgonog* 'darkness', *m-aharga* 'dry season' and *m-efsa* 'white stuff' or 'salt'. Regular intransitive verbs, *osorna* 'hunger' and *ogorna* 'thirst' correspond to the abstract nouns *m-osorna* 'hunger' and *m-ogorna* 'thirst' and the transitive verb *esesba* 'carve' corresponds to the alienable noun *m-esesba* 'carved thing' or 'sculpture'. The inalienable noun *ofuga* 'blood' may attach the prefix *m-* yielding the alienable noun *m-ofuga* 'bloodiness'. The contrastive specifier *erg-em* (NUM:1-CST) '(an)other' may also be seen to attach the prefix to yield the nominal form *m-ergem* 'the other one'.

Alienable nouns which do not have a fused *m-* prefix are generally recent loan words describing introduced items or concepts. Loan words, whether from Malay or acquired through contact with surrounding language groups, typically have a root-initial consonant, such as /b/, /d/, /g/, as in the loan words from Malay given in Table 3.1.

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[12] Nouns referring to plant life are holistic, indicating the plant itself, its produce, as well as subsequent use of its parts as a raw material.

Table 3.1 Loan words from Malay

Moskona   **Malay**

ban	'belt'	*ban*	'sash' / 'belt'
dawr	'cookhouse'	*dapur*	'cookhouse'
gam	'candy'	*kemanisan*	'sweets'
gusin	'key'	*kunci*	'key'
jender	'window'	*jendela*	'window'
kaju	'bean'/ 'peanut'	*kacang*	'bean'
karon	'sack'	*karung*	'sack'
kasina	'glass (material)'	*kaca*	'glass'
manir	'headman'	*mandur*	'overseer'
paoga	'nail'	*pacu*	'nail'
pacur	'hoe'	*pacul*	'hoe'
pasa	'rice'	*beras*	'rice'

A number of other loan words have likely come from contact with nearby Austronesian languages, possibly through Biak-Numfor contact:

kembis	'malaria'	*karmom*	'thick metal'
sáreg	'metal bracelet'	*itkitka*	'rubber (band)'
ariáwun[13]	'medicinal treatment'	*mayna*[14]	'loincloth'

Alienable nouns are of indeterminate number unless specified by a quantifier. The alienable nouns *memega* 'mountain' in (14) and *mes* 'dog' in (15) may be interpreted as either singular or plural.

(14)   ***Memeg(a)*** *ot   ah   aynun.*
        mountain stand lie   enduring
        'The mountain(s) are eternal.'   [D]

(15)   ***Mes*** *ogda   mow   ofor.*
        dog   scoop.w.hand   land   dehydrated
        'The dog(s) dug [in] the dirt.'   [D]

3.1.2.2 Inalienable nouns

Those nouns which may be considered canonical inalienable nouns are chiefly composed of nouns referring to body-parts, but also include the spatial relator nouns, some of which

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[13] A similar form meaning 'medicine' was noted in Hatam by Reesink (1998:613) as a loan from Biak.

[14] Reesink (1998:611) notes a wide distribution throughout the Bird's Head of similar forms meaning 'loincloth'.

overlap with the body-part nouns, and another group of nouns with some form of the fused prefix *ef-*. All inalienable nouns have a root-initial non-high vowel, either /e/ or /o/, making them morphologically similar to verbs and the generic nouns which denote humans. However, no inalienable nouns with a root-initial /a/ have been observed.

Inalienable noun possession requires a pronominal prefix which indexes the person and number of the possessor. As the noun is inherently and obligatorily possessed (by some entity), all inalienable nouns are marked for possession. These pronominal prefixes are identical to the prefixes which inflect verbs for subject person and number (cf. §5.1.5). Table 3.2 illustrates the morphological possession of the inalienable nouns *egak* 'leg' and *osum* 'nose' with morphemic and phonetic realizations.

Table 3.2 Possessed inalienable nouns

Possessor	Possessed Item			
	egak 'leg'		*osum* 'nose'	
1SG	*di-egak*	[dígak]	*di-osum*	[dúsum]
2SG	*bi-egak*	[bígak]	*bi-osum*	[búsum]
3SG	*ø-egak*	[ɛ́gak]	*ø-osum*	[ósum]
DU	*y-egak*	[jégak]	*y-osum*	[jósum]
1PL	*mi-egak*	[mígak]	*mi-osum*	[músum]
2PL	*yi-egak*	[jígak]	*yi-osum*	[júsum]
3PL	*i-egak*	[ígak]	*i-osum*	[úsum]

In the possession of inalienable nouns by nonhuman entities, such as *mek* 'pig' (16), *miy* 'water' (17) and *memega* 'mountain' (18), the possessor is indicated by the third person singular prefix *ø*, a null morpheme, which marks possession for all third person possessors.

(16)   *mek   ofon*
        dog   tooth
        'the pig's tooth'   [T27]

(17)   *miy   ejmeg*
        water   spine
        'the water's spine (current)'   [T23]

(18)   *memega   ebrosurs(a)*
        mountain   crown
        'the mountain's peak'   [D]

Although inalienable nouns are obligatorily inflected for possessor, a possessive phrase may also be used which optionally contains a possessive pronoun, such as *ofon* '3SGPOS' in (19) or *erin* '3PLPOS' in (20), a personal pronoun, such as *dif* 'I' in (21), or both, as in the possessive phrase *dif dadin digak* in (22) composed of the personal pronoun *dif* 'I', the possessive pronoun *dadin* '1SGPOS' and the prefix *di-* '1SG' attached to *egak* 'leg'.

(19)   *Meyja* **ofon**   **egak** *efrir*   *jog.*
         table   3SGPOS leg   broken.in.two   already
         'The table's leg is already broken.'   [D]

(20)   *Dif di-ek*   *i-osnok*   **erin**   **i-ebirorh(a)** *ah jig   mow*
         I   1SG-see 3PL-person 3PLPOS   3PL-skull   lie LOC   land
         'I saw human skulls [and] (they) lay on the ground.'   [D]

(21)   **Dif di-ebir**   *eke*   *jig*   *meyja*
         I   1SG-head   collide   LOC   table
         'My head collided with the table.'   [D]

(22)   **Dif dadin**   **di-egak** *ecitat.*
         I   1SGPOS   1SG-leg   numb
         'I my leg is numb.'   [D]

3.1.2.2.1 Body-part nouns

Body-part nouns in Moskona are nouns which typically refer to a part of a living entity; the majority refer to body-parts of humans or animals, such as:

ebir	'head'	*ejmeg*	'spine'	*oduy*	'front (of torso)
ebrot	'horn'	*etma*	'arm'	*ofon*	'tooth'
eksa	'shoulder'	*eteyja*	'eye'	*okua*	'knee'
orkos	'neck front'	*oko*	'foot'	*osorojga*	'rib'
egak	'leg'	*osuy*	'ear'	*osum*	'nose'

There are also body-part nouns which are associated specifically with plants, such as *ofonga* 'tendrils' or *ofom* 'root'. In addition to humans, animals or plants, body parts may also be attributed to inanimate objects, such as water having a spine, as in (17), tables having legs, as in (19), or a mountain having a crown, as in (18). Body-part nouns also include things considered inextricably linked to their possessors, like things produced by the body, such as *eytoh* 'tears' or *efer* 'sore' or 'wound', intangible properties of the body, such as *ofomsa* 'energy' or 'effort', or abstractions, such as *owoka* 'name' and *ofuy* 'function'.

3.1.2.2.2 Spatial relator nouns

Spatial relator nouns or relational nouns are a group of inalienable nouns which function relationally to express location, that is, they convey a meaning similar to prepositions. They are reference points which are inherent to the reference object, not subject to the viewpoint of the speaker (cf. Frawley 1992:263). Spatial relator nouns occur postpositionally in relation to the (anchor) noun referring to an object. The juxtaposition of the spatial noun and the anchor noun reflects a genitive relationship, similar to that of inalienable possession. In Moskona, spatial relator nouns include a group of body-part nouns and a second group of nouns which are not body-part nouns. Spatial relator nouns have been attested in Oceanic languages (Bowden 1992), in Papuan languages in general and most of languages of the Bird's Head (Reesink 1998:624).

Spatial relator nouns which are body-part nouns:

Spatial noun	Gloss	Location
oduy	'front (of torso)'	front/surface
ejmeg	'spine'	behind/top
efembra	'flank'	edge/side
oko	'foot'	base
okun	'chest'	(out)side
osum	'nose'	point
estak	'butt'	bottom
oskuj	'hindparts'	behind/bottom
odog(eg)	'belly'	surface
ofon	'tooth'	tip

Spatial relator nouns which are not body-part nouns:

ogoh	'base'	foundation/base
sidga	'upperside'	top
ofuyga	'upper extremity'	top
ofomkuy	'center'	center
ewekesa	'midst'	middle
ewes	'cavity'	interior

When a spatial relator noun occurs with a noun referring to a human, it is marked for person and number to agree with the head noun. In the prepositional phrase *jig i-osnok i-ewekesa* 'in the people's midst' in (23), the spatial relator noun *ewekesa* 'midst' is inflected with *i-* '3PL' to agree with the human referents. Spatial relator nouns which occur with non-human objects are always marked with third person singular, a null morpheme, as is *ogoh* 'base' in (24).

(23)   *jig   i-osnok   **i-ewekesa***
    LOC   3PL-person   3PL-midst
    'in the people's midst'   [TT]

(24)   *Yua   yi-ahrir   kuk   memeg(a) **ogoh**.*
    you.PL   2PL-skirt   along   mountain   base
    'You (PL) skirted along the mountain's base.'   [D]

Spatial relator nouns may also occur with noun compounds, reflecting parts of a whole. In (25) the spatial relator noun *osum* 'nose' is possessed by the noun compound *mod mobga* 'roof ridge'. In (26) the spatial relator noun *ewekesa* 'midst' refers to a location inherent to the noun compound *merga eferu* 'boards'. Noun compounds are bracketed for clarity.

(25)   *Ofa   eker   jig* [*mod   mobga*]   **osum**
    s/he   sit   LOC house   roof.ridge   nose
    'He sat on the point of the house's roof ridge.'   [D]

(26)   *Ofa edem miyefen jig* [*merga   eferu*]   **ewekesa**.
    s/he hide   money   LOC wood   segment midst
    'She hid the money in between the boards.' (wood segment = board)   [D]

The notion '(at) the side' is expressed by two separate spatial relator nouns. For broad or flat areas, the spatial relator noun *okun* 'side', as in (27), is used. For narrow or linear areas, *efembra* 'flank', as in (28), is used.

(27)   *No-ma-i   en-ah   had   mod **okun**.*
    DNR-far-GIV   DUR-lie   toward   house side
    'That is toward the side of the house.'   [D]

(28)   *Ofa   éysaha jig   Miy   Mas   **efembra***
    s/he   reach   LOC   water rain   flank
    'she reached the Rain River's edge'   [T7]

The spatial relator noun *ewes* 'cavity' is not a body-part noun, but occurs as the generic component in many body-part terms, such as *osum ewes* (nose cavity) 'nostril', *oska ewes* (crotch cavity) 'vagina' and *osuy ewes* (ear cavity) 'inner ear'. It also refers spatially to the hollow interior of various inanimate objects, such as *mod* 'house' in (29) or *merga* 'wood' in (30).

(29)   *Dif di-ebe-skor   jig   **mod   ewes**.*
    I   1SG-LOAN-study   LOC   house   cavity
    'I studied in the house.'   [D]

(30)   *ergog   y-eg   i-ogá   jig   merga   **ewes**   no-ma-i*
        they.DU DU-hear 3PL-speech LOC   wood   cavity   DNR-far-GIV
        'They heard their voices in the tree hollow'   [T7]

There are two spatial relator nouns which express the notion 'middle' or 'mid-point' of an indeterminate area. The spatial relator nouns *tahaysa* 'middle' and *ofomkuy* 'center' are used with things of indeterminate quantity or mass, such as *ofomkuy* refers to a location in water, as in (31), *tahaysa* 'middle' refers to a location in the sky area (to indicate time of day) as in (32) or to a location in a town area, as in (33).

(31)   *merga   ofoj   edeses jig   miy   **ofomkuy**.*
        wood   blunted many   LOC   water center
        'there are many logs in the center of the river.'   [D]

(32)   *Mif   mi-et   mar-mosorn(a)   ni   maw   **tahays(a)**.*
        we.PL 1PL-eat thing-hunger   on   sun   middle
        'We ate food at mid-day.' (hunger thing(s) = food)   [D]

(33)   *Dif di-ek   mesesba jig   mow kota   **tahays(a)**.*
        I   1SG-see carving LOC   land town middle
        'I saw the carving in the middle of the town area.'   [D]

A spatial relator noun, such as *ofomkuy* 'center' in (34), may also occur as the object of a preposition, although it refers to a part of the whole.

(34)   *Miy   efen(a) ewes   aksa erá   ah jig   **ofomkuy**.*
        water spirit cavity tall THM lie LOC   center
        'The river's spirit (deep part) is in its center.'   [TT]

3.1.2.2.3 Inalienable nouns with *ef-*

There is a small group of nouns, included in the subclass of inalienable nouns by reason of morphological shape, whose present forms have the sequence non-high vowel plus labial consonant, /ef/ or /ow/, fused to a verbal element.[15] The origins of some verbal roots are easily identifiable, such as the transitive verb *eru* 'peel in strips' in *ef-eru* 'a segment (of s.t.)', the transitive verb *ef* 'wrap (up)' in *ef-ef* 'flap'(of tree) or 'lid', or the transitive verb *ed* 'strike' in *ef-ed* 'medicinal treatment' or 'drug'. (Striking with strips of bark is considered a type of medicinal treatment.) In words such as *ef-em* 'nest' or 'pouch' (of a marsupial) which are based on the transitive verb *om* 'enclose', the vowel of the root has harmonized with the front vowel of the prefix. Evidence from Meyah

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[15] The sequence non-high vowel plus labial is possibly a reflex of an old 3SG possessive prefix *ef-* (cf. Reesink 2002a:9). The reduction process observed by some noun compounds (§3.1.3.3), in which a vowel plus labial sequence is elided, may give support to the proposal that the sequence was once a prefix.

cognate *ofók* 'bud' suggests the inalienable noun *owok* '(out)growth' (meaning 'sprouted or 'budded thing') also is a form fused with the old prefix *ef-*. In these latter cases, the consonant of the prefix has changed to /w/ and the vowel has harmonized with the back vowel of the root, such as *ow-* as in *ow-ok*. A few of these nouns are laid out in table form in Table 3.3.

Table 3.3 Inalienable nouns with *ef-*

Noun	Gloss	Verb	Gloss
ef-eru	'segment of s.t.'	*eru*	'peel in strips'
ef-ef	'flap'	*ef*	'distrbute'
ef-ed	'drug'	*ed*	'strike'
ef-em	'pouch'	*om*	'enclose'
ow-ok	'outgrowth'	*ok*	'bear s.t.'

3.1.3 Nouns referring to humans

Nouns referring to humans include a group of generic nouns denoting humans and the kinship terms.

3.1.3.1 Generic nouns denoting humans

Generic nouns denoting humans combine a property which distinguishes alienable nouns with one which distinguishes inalienable nouns. They have a root-initial non-high vowel, like the inalienable nouns, but employ a syntactic possession strategy, like the alienable nouns. That is, generic nouns denoting humans are not inflected for possessor (e.g. **di-efer* 'my child' is unacceptable), but require a possessive pronoun in a possession construction (§6.3.1), such as the possessive pronoun *dadin* '1SGPOS' in the possession phrase *dadin isnok* 'my people' in (35), or the possessive pronoun *ergen* '3DUPOS' in the possession phrase *ergen yefer* in (36).

(35)   *Dif di-esejah   mar-mosorn(a) ni **dadin   i-osnok**.*
        I   1SG-prepare   thing-hunger   for 1SGPOS 3PL-person
        'I prepared food for my people (relatives).'   [D]

(36)   *y-ek   **ergen   y-efer**   no-ma-i*
        they.DU 3DUPOS DU-child   DNR-far-GIV
        '(they) saw their child'   [T10]

The generic nouns denoting humans: *osnok* 'person'[16], *orna* 'man', *ejena* 'woman', *efer* 'child', *es* 'male, *ej* 'female', as well as the more age-defined generic nouns *eferiok* 'small child' and *orenekena* 'elderly person' (from the collapsed phrase *orna ekena* (man

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[16] The generic noun *osnok* is likely a fused form of (*ow)os nok(a)* 'skin this'.

red)) are inflected for person and number of referent through a pronominal prefix, such as *di-* '1SG' attached to *eferiok* 'small child' in (37) or *i-* '3PL' attached to *ejena* 'woman' in (38). These are the same set of prefixes which indicate subject on verbs.

(37) *Kus   noga   di-eferiok..*
      short.span REL   1SG-small.child
      'When I was a small child....'   [T10]

(38) *Eri   i-ejen(a)   i-odog   jig..*
      they.PL 3PL-woman 3PL-pregnant   LOC
      '(If/when) they the women are pregnant...'   [T1]

Titles of position or office are also nouns which denote humans. These nouns, such as the loan word *manir* '(tribal) leader' (from Malay *mandur* 'overseer') and *ebreg* 'leader' or 'head person', are possessed through a possession phrase, such as *erin ebreg* 'their leader'. The noun *ebreg* 'leader' in the phrase *erin ebreg* is inflected with the prefix for third person singular, a null morpheme, indicating the person and number of the referent. Titles for non-traditional positions, such as *Guru* 'teacher' or *Pendeta* 'pastor', are borrowed from Malay and are possessed syntactically with a possessive pronoun, as in the phrase *erin Pendeta* (3PLPOS pastor) 'their pastor'.

3.1.3.2 Kinship terms

In Moskona, kinship terms are not a subcategory of inalienable nouns, as they are in a number of languages in the Bird's Head.[17] Moskona kinship terms have non-high vowel-initial roots like the inalienable nouns, but they are distinct from inalienable nouns in that they have their own unique set of prefixes. These prefixes bear some resemblance to the pronominal prefixes which index possessor on inalienable nouns, but in a process which is unique to this set of prefixes, the root undergoes syncope when attaching a prefix.

The possession strategy for kinship terms includes morphological and syntactic expressions. However, the morphological expression of possession is not symmetrical throughout kinship terms. That is, for some terms, the prefixes indicate only first or second person, but not number. For yet others, only number of possessor but not person is expressed. A few terms are inflected for both person and number. The reason for the retention of a distinctive first or second person possessor prefix may be that those forms are still used vocatively as well as referentially, and some prefixes are clearly conflated forms. The nominalizer prefix *m-* occurs on all kinship terms which are not distinguished for person or number, and possession for these terms is expressed syntactically through a possessive pronoun in a possession phrase.

Some kinship terms are classificatory in that they may refer to a number of different relationships. Moskona allows for the application of a kinship term to other relationships

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[17] In the East Bird's Head languages Meyah (Gravelle 2004:124) and Sougb (Reesink 2002b:217), but also in Hatam (Reesink 1999:48) and Maybrat (Dol 1999:92) kinship terms are inalienable nouns.

besides the basic one, for example a generational extension allows the term for Ego's siblings to extend to father's brother's children, which are therefore classificatory siblings of Ego. Another generational extension in Moskona involves the reciprocal expression for grandparental terms.

The kinship terms will be presented in the order: consanguineal kinship terms two generations above Ego, one generation above Ego, then one generation below, then Ego's generation, followed by two generations below. Lastly, affinal kinship terms are presented.

3.1.3.2.1 Consanguineal kinship terms

In earlier times, pronominal prefixes may have been used to mark possessor for all kinship terms, such as those which mark all kinship terms in Meyah (Gravelle 2004:124), but at present only vestigial prefixes remain for many of the consanguineal terms. This treatment of kinship nouns could be a consequence of a process in language change that transforms prefixed kinship nouns (like the inalienably possessed nouns) in the direction of non-prefixing kinship nouns (like the alienably possessed nouns).

Two generations above and below Ego

The consanguineal kinship term for two generations above and below Ego is a reciprocal term, composed of the bound root –*edina* 'grandparent' or 'grandchild' and a prefix. Gender of speaker or referent is irrelevant. Second person singular possession is marked by the prefix e*b*- '2SG', which is similar only in its bilabial consonant to the pronominal prefix *bi*- '2SG', which attaches to verbs and inalienable nouns. The root-initial vowel /e/ elides when the second person singular prefix is attached. In all other instances, including a first person possessor, the general term *m-edina* is used and possession is expressed through a possession phrase, such as *mifin medina* 'our grandparent/grandchild' or *dadin medina* 'my grandparent/grandchild', as in (39).

eb-edina	[ɛbdína]	'2SG-grandparent'/ 'grandchild'
m-edina	[mɛdína]	'grandparent'/ 'grandchild'

(39)　*Dif*　**dadin**　**m-edina**　*erá,*　*owok(a)*　*Samson*.
　　　I　　1SGPOS　NR-grandpar. THM　name　　Samson
　　　'I my grand parent, his name is Samson.'　　　　　　　　　[D]

Consanguineal terms for one generation above Ego

Vocative terms for parents are monomorphemic and no possessor affixes are identifiable. Although at one time the vocative terms were distinguished from referential terms, they now appear to be losing the distinction, as they may also be used referentially. When

functioning vocatively, they are not possessed; when functioning referentially, possession is expressed through a possessive phrase.

The terms of address for parents are:

> ekok   'father'
> ayok   'mother'

Referential terms for parents have a root-initial *m-* fused to the root, as do alienable nouns. Possession of a referential parent term is expressed through a possessive phrase, such as *mifin mosu-ir* (1PLPOS mother-PL) 'our mothers' or *dadin mekew* (1SGPOS father) 'my father'. Referential parent terms for are:

> mekew   'father'
> mosu   'mother'

Terms for Ego's father's brothers and sisters are expressed as noun phrases composed of the term for 'father' plus a qualifying noun which indicates age with respect to the biological father. The qualifying noun may be *orna* 'man' to indicate 'elder' or *oysura* 'youngest child' to indicate 'younger', as in the vocative term *ekok orna* 'father's older brother' or the referential term *mekew oysura* 'father's younger brother'. Ego's father's sisters are indicated similarly in a noun phrase composed of the term *mosu* 'mother' plus a qualifying noun which indicates age with respect to Ego's biological father. The qualifying noun may be *ejena* 'woman', meaning 'elder', or the noun *oysura* 'youngest child' meaning 'younger', as in the phrase *mosu ejena* 'father's older sister'.

Terms for Ego's mother's brothers are also expressed as noun phrases. The age qualifying noun indicating elder sibling is *orna* 'man', as in *mosu orna* 'mother's older brother', or for a younger sibling, the noun *oysura* is used, as in *mosu oysura* 'mother's younger brother'. Terms for Ego's mother's sisters are expressed as a word composed of the enclitics *–esa* 'younger' and *–era* 'older' used in sibling terms attached to the term *mosu* 'mother', as in *mosu-esa* 'mother's younger sister'.

One generation below Ego

The only kinship term one generation below Ego is the noun *efer* 'child', a generic noun which does not distinguish gender. To denote possession, a possessive phrase with a possessive pronoun is employed, such as *yefyen efer* 'our (DU) child'. To indicate dual or plural referents, the term may be prefixed with the pronominal prefixes *y-* 'DU' or *i-* 'PL', as in *y-efer* '(two) children' [jéɸɛ ̆ɡ] or *i-efer* 'children (PL)' [íɸɛ ̆ɡ].

Because the term *efer* 'child' is gender neutral, when necessary to specify the sex of the child a phrase is used. The nouns *es* 'male' or *ej* 'female', nouns which denote humans and indicate gender, are joined to *efer* (cf. §3.1.4.1.6), as in *efer es* (child male) 'son' and *efer ej* (child female) 'daughter'. The nouns in the phrase may each be prefixed for number and person, such as *y-* 'DU' attached to *efer* 'child' and *es* 'male' in (40).

(40)   *y-**efer**   y-**es**   y-erg-ak.*
       DU-child   DU-male   DU-NUM:1-two
       'two sons'   [T23]

Ego's generation

Consanguineal kinship terms for Ego's generation are polymorphemic nouns which are composed of a pronominal prefix, a bound root indicating the sex of the referent with respect to the sex of the possessor, plus a suffix -*esa* 'younger' or -*era* 'older', which specifies the age of the referent with regard to possessor. The prefixes distinguishing the person and number of the possessor for siblings of the same sex are not isomorphic with the prefixes which distinguish person and number of possessor for siblings of the opposite sex.

Sibling terms are applied to all children who are the offspring of father and father's brothers. Children of mother's siblings and children of father's sisters are not considered relatives, as they belong to a different clan, the clan of their biological father.

Same sex siblings

Terms for siblings of the same sex are composed of the bound root *otk-* 'sibling same sex' (glossed as 'sib.s.s' in examples) which attaches a suffix expressing age relative to the possessor –*esa* 'younger' (yg.) or –*era* 'older' (old.), which may then be prefixed for agreement with the possessor. Evidence from the prefix *ed-* '1SG' which attaches to forms denoting opposite sex siblings suggests that the phoneme /t/ in *otk-* is a vestigial morpheme which has been incorporated into the root, as first person singular possessor is not indicated on the word. The corresponding Meyah root –*oko* 'sibling same sex' may be marked for possessor with *ed-* '1SG' (Gravelle 2004:127), further supporting the hypothesis the /t/ in *otk-* was initially part of a prefix.

The patterns for marking possession for same sex sibling terms are mixed. Dual and plural possessors are marked morphologically, but singular possessors are indicated syntactically. The pronominal prefixes indicating possessor for dual and plural are identical to pronominal prefixes indicating possessor on inalienable nouns, as in:

y-otk-era	(DU-sib.s.s.-old)	[jotkéɾa]
y-otk-esa	(DU-sib.s.s.-yg)	[jotkésa]
mi-otk-era	(1PL-sib.s.s.-old)	[mutkéɾa]
mi-otk-esa	(1PL-sib.s.s.-yg)	[mutkésa]
yi-otk-era	(2PL-sib.s.s.-old)	[jutkéɾa]
yi-otk-esa	(2PL-sib.s.s.-yg)	[jutkésa]
i-otk-era	(3PL-sib.s.s.-old)	[utkéɾa]

i-otk-esa	(3PL-sib.s.s.-yg)	[utkɛ́sa]

Although the root *otk*- has an initial non-high vowel like inalienable nouns, possession for singular is expressed with a possession phrase. A male referring to his older brother would use the possession phrase, *dadin otk-era* (1SGPOS sib.s.s-old) 'my older brother' or referring to the younger brother of a male addressee, *buwun otk-esa* (2SGPOS sib.s.s.-yg) 'your younger brother'. Sibling terms which are inflected to agree with the person and number of the possessor may optionally co-occur with a possessive pronoun, such as *mifin mutkesa* 'our younger sibling same sex'.

Frequently in narrative texts, the alternative root *ok*- 'sibling same sex' occurs. This root plus a suffix specifying relative age *-esa* or *–era* may be prefixed with *m*- 'NR', as in the forms *m-ok-era* (NR-sib.s.s.-old) 'older one' [mokɛ́ɾa] and *m-ok-esa* (NR-sib.s.s.-yg) 'younger one' [mokɛ́sa]. This form reflects a more generic way of referring to the relationship between siblings, as the possessor is rarely given.

Opposite sex sibling

The terms for siblings of the opposite sex are composed of the root *ew*- 'sibling opposite sex' (glossed as 'sib.op.s.' in examples), which attaches a suffix reflecting age relative to the speaker *–esa* 'younger' or *–era* 'older'. First person singular possession is marked by the prefix *ed*- '1SG', the only prefix which distinguishes both person and number, attached to the opposite sex sibling form. It is similar only in its voiced alveolar consonant to the pronominal prefix *di*- '1SG' found on verbs and inalienable nouns. When the pronominal prefixes are attached, the initial vowel of the root /e/ elides, as in the forms:

ed-ew-era	(1SG-sib.op.s.-old)	[ɛduɛ́ɾa]
ed-ew-esa	(1SG-sib.op.s.-yg)	[ɛduɛ́sa]

Possession is marked both morphologically and syntactically on forms which are not first person singular. Second person singular and second person dual possession are marked by a single prefix *ey*- '2SG/2DU'. It is similar to the dual prefix *y*-, which marks possession on inalienable nouns, only by the presence of the approximant /y/. In order to distinguish between singular and dual possessors, a possession phrase is used, such as *buwun eywesa* 'your (SG) younger sibling opposite sex' or *yogyen eywesa* 'your (DU) younger sibling opposite sex'. These possessed terms are:

ey-ew-esa	(2SG/2DU-sib.op.s.-yg)	[ejuɛ́sa]
ey-ew-era	(2SG/2DU-sib.op.s.-old)	[ejuɛ́ɾa]

The prefix *mi*- marks the term for all other possessors and is synonymous with the first person plural prefix *mi*- which marks possessor on inalienable nouns. The vowel of the prefix and root-initial vowel coalesce to form /i/. These possessed terms are:

mi-ew-era	(1PL,3SG,3DU,3PL-sib.op.s.-old)	[miwέɾa]
mi-ew-esa	(1PL,3SG,3DU,3PL-sib.op.s.-yg)	[miwέsa]

To distinguish person and number with this prefix, a possession phrase is used consisting of a possessive pronoun plus the kinship term, such as *mifin miwesa* 'our (PL) younger sibling opposite sex' or *ergen miwera* 'their (DU) older sibling opposite sex'.

There is an additional kinship term *efedes* 'classificatory sibling' used for those of Ego's generation whose fathers are brothers. The term does not distinguish sex or relative age. It is based on the numeral *ed-es* 'NUM:2-one', which categorizes extended surfaces, such as clearings or village areas. (Villages are typically made up of brothers who live together in one locale.) This term has the old prefix *ef-* '3SG' fused to the root, as do a few inalienable nouns (§3.1.2.2.3). For the kinship term *efedes* 'classificatory sibling' possession is expressed morphologically with the same set of prefixes which indicate possessor on inalienable nouns, such as *y-* 'DU' attached to *efedes* in (41).

(41)   *Erewesha   no-ma-i   dokun   ejewjena   no-ma-i   **y-efedes**.*
          young.man   DNR-far-GIV and   young.woman   DNR-far-GIV DU-c.sibling
          'The young man and the young woman are (classificatory) siblings.'   [D]

Generic consanguineal kinship nouns

There are two other general terms relating to kinship, *ebskir* 'relatives', (referring to father, his brother and his brother's children), composed of the noun *efsa ~ ebsa* 'hub', the proximal deictic *–ka*, plus the plural marker *–ir,* as in (42) and *ofuy* 'ancestral line' or 'lineage' as in (43). Possession for these terms is expressed syntactically with a possessive pronoun, as is also the word *fam* 'clan', borrowed from the Malay word *fam* 'family name', as in *erin fam Orocomna* 'their (PL) Orocomna clan'.

(42)   *Ofa ofon   **ebskir**, eri   i-ot   i-eregejg(a)   ofa.*
          s/he 3SGPOS relatives they.PL 3PL-stand 3PL-surround   s/he
          'He his relatives, they were standing around him.'   (T29)

(43)   ***ofuy**   er-esha   raja   Daud*
          lineage   CAUS-from   king   David
          'King David's ancestral line'   (TT)

3.1.3.2.2 Affinal kinship terms

Spouse terms

There is no generic term for spouse. The noun roots *-ahina* 'male spouse' and *-ohena* 'female spouse' are prefixed with the nominalizer *m-* to form terms which are used referentially:

m-ahina	'husband'
m-ohena	'wife'

Possession of referential affinal kinship terms for spouse is expressed through a possession phrase, utilizing a possessive pronoun, as in the phrase *dadin mahina* 'my husband'. Since the Moskona are polygamous, they have phrasal terms indicating the order of multiple wives, such as *mohena ejena* 'first (older) wife' and *mohena oysura* 'second (younger) wife', using *ejena* '(adult) woman' and *oysura* 'youngest child' as qualifying nouns in noun phrases.

The vocative spouse terms appear to be fading from use, and currently may also be used referentially, as in the possession phrase *buwun ethina* 'your husband'. When used vocatively, possession is expressed morphologically, by attaching the prefix *ed-* '1SG' to the root. The initial vowel of the root elides when the prefix is added.

ed-ahina	[ɛtxína]	'my husband (vocative)'
ed-ohena	[ɛtxéna]	'my wife (vocative)'

Ego's parents-in-law

Affinal kinship terms for the parents of Ego's spouse specify sex of the referent with respect to the sex of the speaker. If the parent-in-law is the same sex as the speaker, he/she calls the in-laws: *mogen* 'parent in-law', a reciprocal term; if the parent-in-law is the opposite sex, he/she calls his/her in-laws: *mosu-esa* [mosuésa] 'parent-in-law', a form which is homophonous with Ego's mother's younger sister. Possession is expressed in a possession phrase with a possessive pronoun, such as *dadin mogen* 'my (same sex) parent-in-law' or *buwun mosu-esa* 'your SG (opposite sex) parent-in-law'.

Siblings of Ego's spouse

Terms for siblings of Ego's spouse specify sex with respect to the sex of the possessor. The root for sibling-in-law of the same sex is *–efina*. The root for sibling-in-law of the opposite sex is *–ewisa*. (The term *-ewisa* could be considered a composite of *ew-* 'sibling opposite sex' and *-isa* with a meaning like 'affinal', but there is little justification for this parsing, as the segment *–isa* occurs nowhere else.) Possession of terms for siblings of Ego's spouse is morphological for first person singular possessor, but syntactic for all other possessors. The prefix *ed-* '1SG' indicates possessor for first person singular on both same sex and opposite sex sibling-in-law roots. The initial vowel of the root /e/ elides when the prefix is attached. All other possession is expressed in a possession phrase, such as *buwun mefina* 'your (SG) sibling-in-law same sex', or *erin muisa* 'their (PL) sibling-in-law opposite sex'.

ed-efina	[ɛdɸína]	'1SG-sib-in-law same sex'
m-efina	[mɛɸína]	'sib-in-law same sex'

ed-ewisa	[ɛduísa]	'1SG sib-in-law opposite sex'
m-ewisa	[muísa]	'sib-in-law opposite sex'

3.1.3.2.3 Plural marker on kinship terms

Kinship terms may be inflected for plurality with the suffix *–ir* 'PL'.[18] The suffix-initial vowel /i/ coalesces with /a/, the final vowel of the root, to become /e/, as in *medina-ir* 'grandparents' in (44), or *m-efina-ir* 'siblings-in-law same sex' [mɛɸínɛɾ̥]. The root retains the accent when affixed. The kinship term *efer* 'child' may not be inflected for plurality, as it is also a generic noun which denotes a human and requires a pronominal prefix to indicate the person and number of the referent.

(44)   *Ofa   osot   mahti   gug   m-edina-ir.*   [mɛdínɛɾ̥]
        he/she count legend   to   NR-grandpar.-PL
        'He recounted the legend to his grandchildren.'   [D]

However, there are a few nouns denoting humans which may be inflected with the plural suffix *–ir,* such as: *amoka-ir* [amókɛɾ̥] 'friends' and *miyaht(a)-ir* [mijáxtɪɾ̥] 'wealthy (people)'. The nouns *ejewjena* 'young woman' and *erewesha* 'young man', which are marked with a pronominal prefix to indicate person and number of the referent, may also attach the plural marker *–ir* 'PL', as in:

i-ejewjena-ir	(3PL-young.woman-PL)	[id͡ʒɛwd͡ʒenɛɾ̥]	'young women'
i-erewesha-ir	(3PL-young.man-PL)	[ɪɾɛwésxɛɾ̥]	'young men'

All nouns which refer to non-humans, animals as well as inanimate objects, are indeterminate of number and thus not marked for plural. This treatment of animals is in contrast to Meyah, which marks plurality on nouns referring to dogs and pigs, grouping them with humans.

The plural marker is morphologically identical to the plural marker found in Sougb (Reesink 2002b:221) and Meyah (Gravelle 2004:130), two other East Bird's Head languages.

3.1.4 Noun compounds

A noun compound is a syntactic unit which is composed of free morphemes which function independently in other circumstances (Crystal 1997:78). In Moskona, noun compounding is an extremely productive process, allowing a few lexical items to

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[18] The plural marker *–ir* has an infrequent variant *–ri*, observed in these few words:

mocu-ir ~ mocu-ri	'mothers'
mekew-ir ~ mekew-ri	'fathers'
amok(a)-ir ~ amok(a)-ri	'friends'

combine so as to refer to objects or concepts for which there is no single morpheme. Noun compounds are distinguished semantically and syntactically. A compound noun is distinguished semantically as a single lexical unit, which identifies a single item or concept and tends to have meanings which are non-compositional or unpredictable. Almost all abstract notions in Moskona are expressed in compounds, such as *mar-okum* (thing-heavy) 'difficulty' or *mar-ofoj* (thing-blunted) 'complaint'. Syntactically, noun compounds are distinct from noun phrases (§6.1), in that it is not possible to insert a pause or parenthetical material between the components, nor may the second member of a compound be relativized (cf. Anderson and Keenan 1985:45). Morphophonologically, noun compounds which have an inalienable noun or adjectival verb as the second component may undergo a reduction process which is specific to noun compounds. Phonologically, both roots receive an accent and in running speech, a paragoge –*a* 'PGE' may not occur following the first component. The meaning of the compound is not predictable and may have a more specific meaning than one of its components or be entirely different than the combined meaning. The first component of a noun compound is always a noun. The second component may be either a noun or a verb. As members of the noun class, noun compounds may occur as the subject or object of a verb, or as the object of a preposition.

The majority of noun compounds are of three types and are distinguished by the semantic relationship of the components to each other. The relationships are modified-modifier, generic-specifier and whole-part. No compounds have been observed in which both components have equal status.

3.1.4.1 Noun plus noun compounds

In noun plus noun compounds, the second component N2 may modify the first component N1, as in a generic-specifier relationship, or N2 may be a part or portion of N1.

3.1.4.1.1 Generic-specifier noun compounds

Frequently, a noun from a generic semantic class is the first component of a generic-specifier noun compound, reflecting a lack of intraspecific distinction (i.e. lack of specific-level terms in the same domain, as between members of a species) (See Croft 1990:183). In Moskona, a generic noun, such as *mem* 'bird', as in (45) and (46), *mos* 'fish', as in (48), or *mes* 'dog', as in (47), serves as the head of the compound with the second member delimiting the first.

(45)	*mem-mojuy*	(46)	*mem-kokar*[19]
	bird-lowland		bird-crow
	'cassowary'		'chicken'

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[19] The form *kokar* is an adaptation of the Malay word *kokok* 'crow'.

(47)   *mes-naw*   (48)   *mos-i-osnok*
        dog-meow   fish-3PL-person
        'cat'   'k.o. (flesh-colored) fish'

To form a term for a large foreign animal, the specific noun *mek* 'pig', as the largest indigenous animal, has been substituted as a semantic class name for large mammals and used as the first component with a Malay word as second component, as in:

Moskona		Malay	
mek-sapi	'cow'	*sapi*	'cow'
mek-kuda	'horse'	*kuda*	'horse'
mek-rusa	'deer'	*rusa*	'deer'

***Mar* compounds with nominal specifier**

The generic noun *mar* 'thing' plus a noun forms a compound in which *mar* is delimited by a more specific noun, such as *osum* 'nose' in (49), *ogá* 'speech' in (50), or *efena* 'spirit' in (51).

(49)   *mar-osum*   'loaned item' (fronted item)
        thing-nose

(50)   *mar-ogá*   'voice' or 'message'
        thing-speech

(51)   *mar-efena*   'image' or 'picture'
        thing-spirit

3.1.4.1.2 Whole-part compounds

Whole-part compounds are those compounds in which the second component N2 is a part or portion of the first noun N1. Second components of a whole-part compound are in a genitive relationship to the first member, that is, N2, which is frequently an inalienable noun, is a part of N1, as in (52-55). In natural speech, N2 is typically reduced, resulting in a single phonological word (cf. §3.1.4.3).

(52)   *merah-ofoga*   'smoke'
        fire-cloud

(53)   *ohka-efej*   'beard'
        chin-hair

(54)   *egak-ofuy*   'toe'
        leg-extremity

(55)   *mow-ewes*   'hole (in ground)'
        land-cavity

3.1.4.1.3 Associative compounds

A much smaller group of noun compounds is based on associative semantic relationships. That is, they name the associative purpose, as in (56-59), or some characteristic perceived to be shared, as in (60-62). The nature of the compound is more unitary than compositional.

(56)   *miy-egak*
        cloth-leg
        'pants' (clothing which covers the legs)

(57)   *mod-mejga*
        house-fence
        'animal pen'

(58)   *medew-mesew*
        sago.pith-leaf.container
        'container for sago meal'

(59)   *macog-mem*
        gun-bird
        'bird gun'

(60)   *mod-miy*
        house-water
        'ground house' (house built on the ground near water)

(61)   *oko-m-ej*
        foot-NR-female
        'calf' (of leg) (lower/slimmer section of the leg)

(62)   *oko-o(r)na*
        foot-man
        'thigh' (upper/thicker section of the leg)

3.1.4.1.4 Compounds for introduced items

The noun *mos* 'people' which designates groups of people, has the extended meaning 'outsider' and extends further to yield the meaning 'foreigner thing', as in (63-65), occurring with common nouns to specify an introduced or foreign item. These compounds form a phonological unit, with the accent placement on the noun root.

(63)   *meserf(a)-mos*   [mɛsɛ́ɾɸmos]
        spoon-foreign
        'metal spoon'

(64)   *meresa-mos*   [mɛɾɛ́smos]
        sugarcane-foreign
        'sugar'

(65)   *mesina-mos*   [mesínamos]
        stringbag-foreign
        'tote bag'

3.1.4.1.5 Noun compounds with gender words

Compound nouns formed with the nouns *es* 'male' and *ej* 'female' joined with the noun *efer* 'child', as in (66) and (67), comprise a single phonological unit with the unitary meanings 'male child' or 'son' and 'female child' or 'daughter', and are used only when the sex of the child must be specified. (The nouns *es* and *ej* are not gender markers and may be inflected for person and number of referent, such as *y-es* (DU-male) 'two males' or *i-ej* (3PL-female) 'females (PL)'.)

(66)   *efer-ej*   [ɛɸɛɾɛ́d͡ʒ]
        child-female
        'daughter'

(67)   *efer-es*   [ɛɸɛɾɛ́s]
        child-male
        'son'

In compounds in which the words *es* 'male' and *ej* 'female' precede *efer* 'child', they form a different lexical item, the noun compounds:

(68)   *ej-efer*   [ɛ́d͡ʒɛɸɛɾ̥]
        female-child
        'young woman (marriageable age)'

(69)   *es-efer*   [ɛ́sɛɸɛ̥ɾ]
        male-child
        'young man (marriageable age)'

The nouns *es* 'male' and *ej* 'female' may also join with a few inanimate objects which are specifically associated with either men or women, such as *mosork(a)-ej* 'female toilet hole' or *mirg(a)-es* 'male sleeping area'.

3.1.4.1.6 Pronominal compounds with gender words

Pronominal compounds, composed of a third person pronoun plus a noun denoting gender, are always expressed as a single phonological word. The third person singular pronoun *ofa* 's/he', as in (70) and (71), or third person plural pronoun *eri* 'they (PL)', as in (72) and (73), are the first component with the nouns *es* 'male' and *ej* 'female' as second component. The second component delimits the pronoun, which is gender neutral, clarifying the referent. The third person dual pronoun *ergog* has not been observed to form pronominal compounds with the nouns *es* 'male' and *ej* 'female'. Instead, the pronominal prefix *y-* 'DU' attaches to *es* 'male' or *ej* 'female', as in *y-es* 'males (DU)'.

(70)   *ofa-es*   [oɸɛ́s]
        s/he-male
        'he'

(71)   *ofa-ej*   [oɸɛ́d͡ʒ]
        s/he-female
        'she'

(72)   *eri-es*   [ɛɾís]
        they..PL-male
        'they (PL) males'

(73)   *eri-ej*   [ɛɾíd͡ʒ]
        they.PL-female
        'they (PL) females'

The plural pronoun *eri* 'they..PL' may also attach a noun compound which has incorporated a noun denoting gender, such as *ej-efer* 'young woman' in (74), to further delimit those referred to by the pronoun.

(74)   *eri-ej-efer*   [ɛɾíd͡ʒéɸɛ̥ɾ]
        they..PL-female-child
        'they young women'

3.1.4.2 Noun plus verb compounds

Noun plus verb compounds are usually the modified-modifier type. The second component, the verb, carries no inflectional prefixes. Each compound expresses a single concept. Although the word order for noun plus verb compounds is the same as for subject-predicate constructions, these compounds may function as the subject or as the object of clause, as in *Ofa or meserfa-ofog.* (s/he hold spoon-pointed) 'He held/used a fork'. A few modified-modifier compounds are given in (75– 80).

(75)   *mow-ewet*
        land-semi-solid
        'clay'

(76)   *miy-efeyu*
        water-immature
        'pool'

(77)   *merg(a)-ofog*
        wood-pointed
        'splinter'

(78)   *merga-ofoj*
        wood-blunted
        'stump, log'

(79)   *miy-ofog*
        water-pointed
        'wave'

(80)   *eteyja-ebah*
        eye-live
        'life'

Mar compounds as modified-modifier

To express many concrete items, especially many introduced items, the generic noun *mar* 'thing' is employed as the first component in a modified-modifier compound, as in (81–84). The use of *mar* 'thing' as the first component provides a way to refer to generic or abstract concepts, as in (85–88).

(81)	*mar-ahta*	'ink'	(82)	*mar-efeyu*	'paper currency'
	thing-black			thing-patterned	
(83)	*mar-ebah*	'insect'	(84)	*mar-ofor*	'spices'
	thing-live			thing-dehydrated	

(85) *mar-okecic*   'sign'   (86) *mar-efsa*   'salt'
      thing-point.out   thing-white

(87) *mar-ofoj*   'complaint'   (88) *mar-okum*   'difficulty'
      thing-blunted   thing-heavy

A generic word with the meaning 'thing' is used extensively to form compounds in the other East Bird's Head languages, *mar* 'thing' in Meyah (Gravelle 2004:133) and *ar* 'thing' in Sougb (Reesink 2002b).

3.1.4.3 Morphological reduction in noun compounds

There are a number of compounds which undergo an optional morphophonological process which is specific to noun compounds. This process, which is based on the phonological shape of the second component, involves the optional elision of the first two segments of the second component. The second member of the compound, which may be either a noun or verb, characteristically has the nonhigh vowels /e/ or /o/ initially, plus a labial consonant /f/, /b/ or /w/, as in *efej* 'dried (out)', *owos* 'skin', or *ewes* 'cavity'. When a compound undergoes this process, the first two segments of N2 may coalesce into a long vowel, or may be elided. A compound, such as *mar-ebah* 'insect' [maɾ έβax], is reduced to [maɾá·x]. The compound *ebir-efej* 'head hair' [έβιɾ έɸεd͡ʒ] becomes [εβιɾéd͡ʒ]. The resulting word retains the accent of the second member, which becomes the new accented syllable of the word.

There are a number of former compounds which have been completely lexicalized following this pattern. The noun *mergéj* 'firewood' has been reduced from *merga-efej* (wood-dried), as in (89). The current word for 'goods' or 'possessions' is *marot* from the *mar* compound *mar-owot* (90). The compound *mac-ogá* (thunder-speech) has been reduced to *macog* 'gun' (91). When a phrase such as *merga efej* (wood dried) occurs, the meaning is 'dried wood', not 'firewood'. Lexicalized forms have a single accent and unique nominal meanings.

(89) *merga-efej*   >   *mergej*   [mέɾgεd͡ʒ]
      tree-dried.out   'firewood'

(90) *mar-owot*   >   *marot ~ marowot*   [máɾot]
      thing-secretion   'goods'

(91) *mac-ogá*   >   *macog*   [mát͡ʃog]
      thunder-speech   'gun'

3.2 Verbs

Verbs are a class of words in Moskona which express actions, processes and states. Verbs as a word class are distinguished from other classes of words by three morphological properties: 1) verbs have a root-initial non-high vowel *e*, *o*, or *a*, 2) verbs may host the verbal prefixes (subject, aspectual, modality and causative) and 3) verbs may attach the reduplicative suffixes. Adjectives (§3.2.2.3.3) are not distinguished from verbs, but are a subcategory of intransitive verbs, distinguished syntactically, as they may also serve as modifiers in a noun phrase. There are two morphological processes which occur in verbs. The first is prefixal, encompassing the inflectional categories, the second is reduplicative.

3.2.1 Inflectional and derivational categories

Moskona has a verbal morphology with seven categories of affixation marked on the root. Five categories are inflectional and two are derivational. The inflectional categories include subject (as pronominal prefix), mode (as irrealis marker), aspect (as durative marker), reciprocal object / peripheral argument (as pronominal circumfix) and iterative or continuous aspect (as reduplicative suffixes). The derivational categories are causative (as causative marker) and verbalizer (as loan prefix).

The order of morphemes within the transitive verb word is: pronominal prefix, mode or aspect prefix, causative prefix and circumfix. Reduplicants (RED) are suffixes. Due to its limited distribution (only on loan words) the loan prefix is not included in the order given below. Intransitive verbs do not allow the reciprocal circumfix, of course. Co-occurrence restrictions will be discussed below.

SubjP (IRR/DUR) (CAUS) (Cfx) Vrt (RED)

3.2.1.1 Pronominal prefixes

The pronominal prefixes indexing subject obligatorily occur on verbs and are identical to the prefixes which occur on inalienable nouns indicating the possessor (§3.1.2.2, §5.1.5). At morphological boundaries, the vowels of the prefixes and initial vowels of roots coalesce. The morphophonemic process which occurs at these boundaries is discussed in §2.5.1.2.1. The pronominal prefixes are:

SG	1	*di-*
	2	*bi-*
	3	ø
DU		*y-*
PL	1	*mi-*
	2	*yi-*
	3	*i-*

Pronominal prefixes indicate subject on transitive verbs, such as *i-* '3PL' attached to the transitive verb *ahac* 'tie (up)' in (92), on intransitive verbs, such as *mi-* '1PL' attached to the regular intransitive verb *oyka* 'dance' in (93), and on adjectival verbs functioning predicatively, such as *di-* '1SG' attached to the adjectival verb *aksa* 'tall' in (94).

(92)   *Edá, eri   **i**-ahac mogos(a) no-ma-i*   [íxat͡ʃ]
       then   they.PL 3PL-tie   snake   DNR-far-GIV
       'Then, they tied up the snake'   [T4]

(93)   *mif   **mi**-oyka*   [mújka]
       we.PL 1PL-dance
       'We danced'   [T14]

(94)   *Dif **di**-aksa.*   [díksa]
       I   1SG-tall
       'I am tall.'   [D]

The dual forms have undergone conflation, such that they no longer distinguish person in the prefixes, although all three persons are distinguished in the personal pronouns. Thus, a personal pronoun, such as *ergog* 'they.DU' in (95) or *yoga* 'you.DU' in (96), in addition to *y-* 'DU' is necessary to distinguish person for a dual subject.

(95)   *Ergog **y**-etka   merga   no-ma-i.*   [jétka]
       they.DU DU-split wood   DNR-far-GIV
       'They (two) split the wood.'   [T7]

(96)   *Yoga   **y**-er-oduy   ofa*   [joródøj]
       you.DU DU-CAUS-front s/he
       'You (two) bring him'   [TT]

Third person singular is marked with ø, a phonologically null morpheme. Thus, verb roots, such as *ok* 'flee' and *osok* 'climb up' in (97) and *ebisa* 'cry' in (98), are inflected for person (third) and number (singular).

(97)   *Yom **ok**   **osok**   tum   mohega*
       Yom   flee   climb.up   onto   mohega.tree
       'Yom fled [and] climbed up on the *mohega* tree'   [T6]

(98)   *ofa   **ebisa**   esebra*
       s/he   cry   continuously
       'he cried all the time'   [T10]

The third person singular prefix ø is used to index subjects which are inanimate or animate and nonhuman, regardless of number. The inanimate subject *ofom* 'root' is indicated on the verb *ah* 'lie' in (99) with third person singular ø. Verbs which have subjects which are larger animals (e.g. dogs, pigs, or deer) are also typically inflected with third person singular, such as the verb *osta* 'chase' in (100). But occasionally, such as when animals are treated as human in legends, verbs may be inflected with a different pronominal prefix, such as *i-* '3PL' marked on *eker* 'sit' in (101).

(99)   *Merga   no-ma-i,   ofon   ofom ah etkebra.*
        wood   DNR-far-GIV   3SGPOS root lie short
        'The tree, its roots are shallow.'   [D]

(100)   *Mes   osta   mekrus   esebra*
        dog   chase deer   continuous
        'The dogs chased the deer on and on'   [D]

(101)   *Misi   dokun   ofon   amok(a)-ir   noga i-en-eker....*
        bandicoot and   3SGPOS friend-PL   REL   3PL-DUR-sit
        'The bandicoot and his friends who were staying...'   [T9]

When adjectival verbs function as modifiers in a noun phrase, they are marked for person and number to agree with the head noun. These pronominal prefixes are identical to the pronominal prefixes which signal subject on verbal predicates. For example, in (102) the adjectival verb *ofojok* '(be) poor' is marked with third person plural prefix *i-* to agree with the person and number of the noun *i-osnok* '3PL-person', which denotes a human.

(102)   ***i**-osnok   **i**-ofojok*
        3PL-person   3PL-poor
        'poor people'   [TT]

3.2.1.2 Pronominal circumfix

The reciprocal marker 'RECIP' is a circumfix, composed of a prefixal part *em-* and a suffixal part *–im(a)* functioning together. (The morphophonemic processes which the circumfix undergoes are discussed in §2.5.1.4.) The circumfix is a morphological means of referring to reciprocal arguments which are peripheral, as in (103), or a reciprocal object functioning as undergoer, as in (104). The reciprocal marker replaces the pronoun *mogum* '(to/for/with) each other' (§5.1.1), which encodes an object or peripheral argument such as goal, source, or beneficiary. The reciprocal pronoun and the reciprocal circumfix are mutually exclusive, as an object or peripheral argument may only be indicated once in a clause.

(103)   *Eri   i-**em**-or-**ima**.*
   they.PL   3PL-RECIP-hold
   'They handed (the things) to each other.'   [D]

(104)   *Dif di-ek   i-osnok   i-**em**-ogow-**ima** jig   pasar.*
   I   1SG-see 3PL-person   3PL-RECIP-chop   LOC   market
   'I saw people killing each other in the market.'   [D]

Although the prefixal part of the reciprocal circumfix is homophonous with the irrealis marker *em-* 'IRR', it may be distinguished by morphological order, as its position in relation to the causative marker clarifies its identity. The prefixal part of the reciprocal marker occurs following the causative marker *er-* 'CAUS', as in (105), in contrast to the irrealis marker *em-* 'IRR' which occurs preceding the causative marker *er-*, as in (106). The reciprocal circumfix and the irrealis marker may co-occur, as in (107) and (108), with the order being: irrealis marker *em-* 'IRR', causative marker *er-* 'CAUS', followed by the prefixal part of the circumfix *em-*.

(105)   *Eri   i-er-**em**-ec-**ima**   jig   mowos   efca.*
   they.PL   3PL-CAUS-RECIP-press.on   LOC   village   hub
   'They gathered in the village center.' (cause to press e.o. = gather)   [T29]

(106)   *Owot   **em**-er-ec   buwun   miyes.*
   secretion   IRR-CAUS-press.on   2SGPOS   clothes
   'The [tree] secretion (sap) will press on (stain) your clothes.' [D]

(107)   *i-**em**-er-**em**-ogow-**ima***
   3PL-IRR-CAUS-RECIP-chop
   'they would chop each other (with s.t.).'   [D]

(108)   *Bua   bi-**em**-er-**em**-etejen(a)-**im(a)**   buaha   rot   i-erg-em*
   you.SG   2SG-IRR-CAUS-RECIP-compare   2SGRX   about 3PL-NUM:1-CST

   edak.
   NEG.DEON
   'You shouldn't compare yourself with others.'   [TT]

The circumfix may co-occur with the durative marker *en-* 'DUR', as in (109), and with the irrealis prefix *em-* 'IRR', as in (110).

(109)   *Eri-orna   i-**en**-**em**-ed-**ima**   rot   miy   okow.*
   they.PL-man   3PL-DUR-RECIP-strike   about cloth   debt
   'Men were attacking each other over cloth debt.' [T15]

(110)   *Eri   i-**em**-**em**-ef-**ima**.*
         they.PL   3PL-IRR-RECIP-shoot
         'They would shoot [arrows] (at) each other.'   [T15]

The prefixal part of the reciprocal marker *em-* has an abbreviated form: *m-*. This allomorph *m-* has been observed to occur only when affixed to the second verb in a serial verb construction (§9.1.2.7.1), such as *ejga* 'graze' in (111).

(111)   *Ergog   y-eke   **m**-ejga-**ima**..*
         they.DU DU-crash   RECIP-graze
         'The two crashed [and] grazed each other.'   [D]

3.2.1.3 Mode morpheme *em-* 'IRR'

The notion of irrealis is expressed grammatically as a mode morpheme, the irrealis prefix *em-* 'IRR', to express non-reality or possibility, such as future (e.g. intended) or hypothetical events. Verbs which are not marked for irrealis carry an inherent realis modality, indicating that the events of the proposition are factual and may be interpreted as either present or past.

The irrealis marker *em-* 'IRR', which may occur on transitive and regular intransitive verbs, follows a pronominal prefix and precedes the causative prefix *er-* 'CAUS', as on the transitive verb *etka* 'split' in (112) and on to the intransitive verb *owha* 'leave' in (113), but may not co-occur with the durative (aspect) marker *en-*.

(112)   *(mif) mi-**em**-er-etka   mergej*
         we.PL 1PL-IRR-CAUS-split   firewood
         'we will split firewood (with s.t.)'   [D]

(113)   *Ofa   **em**-owha fen   cumjog*
         s/he   IRR-leave from three.days.ago
         'He would have left three days ago.'   [T23]

The irrealis marker expresses the hypothetical when it occurs with a temporal adverb denoting a time past, such as the temporal adverbial *cumjog* 'three days ago' in (113), which eliminates the interpretation that the event is future.

As all negative clauses fall into the category of irrealis, the irrealis morpheme *em-* 'IRR' obligatorily occurs on verbs in all negated verbal clauses, such as the verb *efieyja* 'ready to eat' in the declarative clause negated with *éra* 'NEG' in (114), the verb *osotka* 'marry' in (115), a clause expressing negated possibility with *néesa* 'not yet' and the verb *oruskej* 'grasp' in the deontic clause negated with *edak* 'NEG.DEON' in (116).

(114)   *tiná* **em**-*efieyj(a)*   *nes-is*   *éra.*
        but   IRR-ready.to.eat   quickly-RED   NEG
        'but it wasnt ready to eat quickly.'   [T23]

(115)   *Dif di-**em**-osotka   m-ej*   *néesa.*
        I   1SG-IRR-marry   NR-female   not.yet
        'I (male) am not married yet.'   [T16]

(116)   *I-eferiok   i-**em**-oruskej   mioha   efej   edak.*
        3PL-sm.child 3PL-IRR-grasp   cinders   dried   NEG.DEON
        'Small children shouldn't handle (cold) cinders.'   [D]

It may be noted that in the East Bird's Head languages, Sougb also requires the irrealis marker on verbs in negated clauses (Reesink 2002b:204), but Meyah, although genetically closer than Sougb, requires the durative marker on negated clauses (Gravelle 2004:102).

An abbreviated form of the irrealis marker *m-* occurs in negative imperative clauses or prohibitives (§12.7.5) with *edak* 'NEG.DEON', when the subject is second person singular, as in (117–119).) The obligatory person-number subject marking on the verb is neutralized, the subject being expressed by the personal pronoun *bua* 'you.SG' only.

(117)   *Bua   **m**-ogá   edak!*
        you.SG   IRR-speech   NEG.DEON
        'Don't be noisy!'   [D]

(118)   *Bua   **m**-og   néesa   edak!*
        you.SG   IRR-write   not.yet   NEG.DEON
        'Don't write yet!'   [T29]

(119)   *Bua   **m**-or   edak!*
        you.SG   IRR-hold   NEG.DEON
        'Don't handle (it)!'   [D]

Those clauses negated with *edak* with second person dual or second person plural subjects have a pronominal prefix indicating subject and the full form of the irrealis marker *em-* marked on the verb, as in (120), and may be interpreted as expressing either negative imperative or mitigated negative imperative, as indicated by the two glosses.

(120)   *Yoga   y-**em**-ecira jig   maeken(a)   edak.*
        you.DU   DU-IRR-walk LOC   garden   NEG.DEON
        'You (two) should not walk to the garden.'
        'Don't you (two) walk to the garden.'   [D]

Clauses negated with *edak* which have the second person singular prefix marking subject on the verb have the full form of the irrealis marker *em-* 'IRR', as in (121), expressing a mitigated negative imperative.

(121)   *Bua   bi-**em**-ecira   tusus   edak.*
       you.SG   2SG-IRR-walk   to.and.fro   NEG.DEON
       'You shouldn't wander around.'   [D]

3.2.1.4 Durative aspect

The durative marker *en-* 'DUR' is quite possibly a grammaticalization of the verb *en* 'come', as cross-linguistic evidence suggests that verbs of movement undergo phonological reduction and semantic change to form aspect markers (C. Lehmann 1993:324, Aikhenvald 2006:30). In so doing, the grammaticalized form has taken on the aspectual meaning 'be in process'.

The durative marker *en-* occurs on transitive and regular intransitive verbs, such as the transitive verb *or* 'build' in (122) or the regular intransitive verb *ok* 'flee' in (123).

(122)   *eri   i-**en**-or   mod   jig ...*
       they.PL   3PL-DUR-build   house   LOC
       'they were building the house in ...'   [T7]

(123)   *y-efer   no-ma-i   y-**en**-ok   jig ...*
       DU-child   DNR-far-GIV   DU-DUR-flee   LOC
       'the two kids were fleeing to ...'   [T23]

The durative aspect marker may not occur with stative type verbs, such as adjectival verbs or quantifier verbs, since progressive aspect involves a dynamic event, one which inherently involves change (Bybee et al 1994:126, Croft 1991:82). Nor does the durative marker co-occur with the mode morpheme *em-* 'IRR', as durative or progressive events are expressions of factual modality and fall into realis mode. The durative marker has not been observed to co-occur with reduplicated transitive or intransitive verbs, which express iterative aspect.

Durative aspect, which relates a predicate to the time interval over which it occurs, has two possible internal structures regarding the time interval: telic, having an endpoint, and atelic, with no terminal point built into it (Comrie 1976:44). The durative aspect marker *en-* expresses both of these: the telic as progressive aspect and the atelic as habitual aspect.

Habitual aspect

The durative marker *en-* 'DUR' expressing habitual aspect, asserts that the event regularly takes place and lasts an extended period of time. When the durative marker expresses a habitual or normative state, it is usually independent or almost independent of time

reference. The durative marker attached to the verb *ot* 'stand' in (124) indicates that the state 'wearing clothes' is a habitual or normative state. In (125) the durative marker attached to the verb *et* 'eat' indicates that the eating of snake (meat) is a normative event for men. (The eating of snake is taboo for women and children.)

(124)   *Kus   no-kef,   mif   mi-**en**-ot   jig   miyes.*
         short.span DNR-here we.PL 1PL-DUR-stand LOC   clothes
         'Nowadays, we wear clothes.' (stand in clothes = wear clothes)   [T13]

(125)   *edá,   eri-orna   gijga erá   i-**en**-et.*
         then   they.PL-man just THM   3PL-DUR-eat
         'then, the (adult) men only eat it.'   [T4]

Progressive aspect

When the durative marker expresses progressive aspect, the action is on-going at the time of reference, whether only at the time of the speech event, or extended in time preceding and following the speech event. Attached to *ot* 'stand' in (126) and *ogos* 'die' in (127), the durative marker signals the (on-going) action of the time of reference, but in (128) attached to *ah* 'lie' and *engit* 'make', it signals a pre-existing condition which will have an extended effect.

(126)   *Mek   or-i-es   **en**-ot   tusus   jig   miskoh.*
         pig   NUM:7-?-one DUR-stand to.and.fro LOC   house.underside
         'A pig is roaming around under the house.'   [D]

(127)   *Ofa   esir   jig   merg(a) ofog   erogá   **en**-ogos.*
         s/he   fall   LOC   wood   pointed hence   DUR-die
         'He fell on the pointed stick, so he is dying.'   [D]

(128)   *Malaria no-ma-i   **en**-ah   jig   i-ofuga   erá   **en**-engit   i-osum*
         malaria DNR-far-GIV   DUR-lie LOC 3PL-blood THM   DUR-make 3PL-nose

         obrer.
         sunken.in
         'The malaria [which is] in their blood is making their faces sunken.'   [T29]

Motion verbs, such as *eyja* 'go' and *en* 'come', which have an inherent extended aspect may also attach the durative marker when the progressive nature of the event is in focus, such as *en-* attached to *eyja* 'go' in (129).

(129)   *Kus=kef   erá,   mif   mi-**en**-eyja jig   miy   mojum(a).*
         short.span=here THM   we.PL 1PL-DUR-go LOC   water ocean
         '[As for] now, we are going to the ocean.'   [D]

The classificatory verbs *ah* 'lie', *eker* 'sit', *ot* 'stand' and *ebah* 'live' require the durative marker to indicate habitual aspect, such as *en-* attached to *ot* 'stand' in (130), or progressive aspect, such as *en-* attached to *ot* 'stand' in (131).

(130)   *moduah-a   tin   **en**-ot=ma-i   ros.*
         k.o.tree-PGE also   DUR-stand=far-GIV still
         'The *moduah* tree also is still there.'   [T7]

(131)   *Buwun   miy   no-ma-i   **en**-ot   sesoj.*
         2SGPOS   water DNR-far-GIV DUR-stand last.in.order
         'Your [glass of] water is the last one.'   [D]

Continuous or progressive aspect may also expressed in an aspectual SVC (§9.1.2.5) with a posture verb occurring as the minor verb.

3.2.1.5 Causative marker

The causative marker *er-* 'CAUS' is quite possibly a grammaticalized form of the transitive verb *or* 'hold', which has extended meanings which include 'handle', 'touch', 'use', 'manipulate' or 'steer'.[20] The causative morpheme *er-* 'CAUS' has two functions: it derives causative verbs and it cross-references a manipulative object on the verb, a combination of functions which is not unknown cross-linguistically (Croft 1991:242). However, in the other languages of the East Bird's Head, only a single function has been observed for the grammatical marker, that of cross-referencing instrument on the verb (Reesink 2002a:28).

3.2.1.5.1 Morphological causative

As a productive morphological causative, the prefix *er-* may attach to both intransitive and transitive verbs, indicating that the agent is conceptually more directly tied to the event, that is, the agent is directly responsible for the effect of the event.

If the verb is an adjectival verb, that is stative, the prefix *er-* derives the inchoative meaning 'cause to become X', such as the adjectival verb *efna* '(be) flat' in (132) prefixed with *er-* derives the meanings 'become flat' or 'flatten', as in (133), the adjectival verb *ahaysa* '(be) hard', as in (134), takes on the meaning 'become hard' or, as in the SVC in (135), 'become strong'.

(132)   *Mow   no-ma-i   **efna**   jog.*
         land   DNR-far-GIV flat   already
         'The ground is already flat.'   [D]

---

[20] Meyah has a morphologically identical prefix for cross-referencing instrument and a corresponding manipulative verb *era* 'use' (Gravelle 2004:107).

(133)   *Dif di-**er-efna**   mow no-ma-i.*
        I   1SG-CAUS-flat land DNR-far-GIV
        'I flattened the ground.'   [D]

(134)   *Marefen   ofom **ahays(a)** jog.*
        grass   root   hard   already
        'The grass' roots are already hard (firmly set).'   [D]

(135)   *ofa et   mar **er-ahays(a)** roga*
        s/he eat thing CAUS-hard   first
        'she eats [so] (she) hardens (becomes strong) first'   [T23]

If the causative prefix attaches to a regular intransitive verb, the resulting form becomes transitive with a meaning like 'cause to X' or 'be made to X'. For example, the verb *ot* 'stand', as in (136), when prefixed with *er-* 'CAUS' takes on the meaning 'cause to stand with' or 'accompany', as in (137). The intransitive verb *oh* 'sink down', as in (138), when prefixed with the causative prefix *er-*, derives the meaning 'be made to sink down in' or 'mix with', as in (139). If the intransitive verb *ah* 'lie', as in (140), attaches the causative prefix, it derives the meaning 'cause to lie' or 'extend', as in (141).

(136)   *ofon   efer   oysur(a) no-mis-i   erá   en-ot   jig   Miy*
        3SGPOS   child last.child DNR-former-GIV THM DUR-stand LOC   water

        Mas   ewet
        rain   semi.solid
        'her youngest child was standing on the bank of the Rain River'   [T7]

(137)   *edá   bi-**er-ot**   dif jef*
        then 2SG-CAUS-stand   I   DEON
        'then (you) should accompany me'   [D]

(138)   *Merga **oh**.*
        wood   sink.down
        'The tree sunk down [slowly].'   [D]

(139)   *Bua   bi-em-esah mar **er-oh**-roh   dadin   edak.*
        you.SG 2SG-IRR-put thing CAUS-sink.in-RED 1SGPOS NEG.DEON
        'You shouldn't put it [so] it sinks down in (mixes with) my stuff.'   [D]

(140)   *Ejena esiwkjig miyes **ah** jig mofun esebra*
        woman allow   clothes lie LOC vine   continuous
        'The woman leaves the clothes [so] (they) lie on the vine (clothesline) all the time'   [D]

(141)   *Ofa* **er-ah**-*rah*   *mofun*   *rot*   *ember*[21]
         s/he   CAUS-lie-RED   vine   about   bucket
         'he extends the vine (rope) for the bucket'   [D]

The causative prefix attached to a transitive verb indicates that the subject/agent (Y) acts on the object/undergoer (Z), yielding the meaning 'Y causes Z to be X(ed)'. This can be seen in the transitive verbs, *egedid* 'obstruct', as in (142), compared with the causative form *er-egedid* meaning 'cause to be obstructed' or 'pinch', as in (143), *efta* 'attach to', as in (144), compared with *er-efta* 'cause to be attached to' or in this context 'landed', as in (145), *os* 'move horizontally (over)', as in (146), compared with *er-os* 'cause to move horizontally over' or 'spread', as in (147), and *enin* 'measure', as in (148), compared with *er-enin* 'cause to be measured', 'test', or 'try', as in (149). The causative prefix *er-* attached to a transitive verb does not cause the resulting form to change class.

(142)   *Mesina*   *orokec*   **egedid**   *midohes*   *jug*
         stringbag   large   obstruct   doorway   against
         'The big string bag obstructed the doorway [blocking him off]'   [D]

(143)   *Merga*   *eferu*   *no-ma-i*   **er-egedid**   *di-etma.*
         wood   segment   DNR-far-GIV   CAUS-obstruct   1SG-arm
         'The boards caused my hand to be obstructed.' or
         'The boards pinched my hand.'   [D]

(144)   *Perangko*   *no-ma-i*   **efta**   *enpelop*[22]   *gijga.*
         stamp   DNR-far-GIV   attach.to   envelope   only
         'The stamps attached to the envelope.'   [D]

(145)   *ergog*   *y-**er-eft(a)***   *jig*   *mowah*
         they.DU   DU-CAUS-attach.to   LOC   forest
         'they (two) caused [their dugout] to attach to [land] at the forest' or
         'they landed [their dugout] at the forest'   [T7]

(146)   *Merga*   *ofom*   **os**   *mow*   *kuk*   *modeg.*
         wood   root   move.horiz.   land   along   yard
         'The tree roots moved horizontally (crawled) over the ground along the yard.'
                                                         [D]

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[21] The word *ember* is a term borrowed from Malay.

[22] The word *enpelop* 'envelope' is an adapted loan from Malay'

(147) *Bua   bi-**er-os**   mebgif   efef   jig   mer.*
       you.SG 2SG-CAUS-move.horiz.   fan.palm flap   LOC   room
       '(You) cause the palm branches to move horizontally in the room.' or
       'Spread out the palm branches in the room.'   [D]

(148) *Ofa   **enin**   mowuj   rot   sokomow   roga*
       s/he   measure housepost about beginning first
       'First he measured the houseposts at the beginning'   [D]

(149) *Ofa   em-**er-enin**   néesa.*
       s/he   IRR-CAUS-measure   not.yet
       'He didn't cause it to be measured yet.' or
       'He didn't test it yet.'   [D]

The causative marker *er-* may attach to a few inalienable nouns to form transitive verbs, such as the inalienable noun *omna* 'cheek', deriving the verb *er-omna* 'accompany', as in (150), and the inalienable noun *oduy* 'front', deriving the verb *er-oduy* 'cause to front' meaning 'lead s.o.', as in (151).

(150) *Bua   bi-**er-omna**   dif.*
       you.SG 2SG-CAUS-cheek   I
       'Accompany me.'   [D]

(151) *Ofa   **er-oduy**   eferiok   no-ma-i   gug   dif.*
       s/he   CAUS-front   sm.child   DNR-far-GIV goal   I
       'He led the small child to me.'   [TT]

The causative prefix may be added to the verbs *en* 'do' (152) and *engit* 'make' (153) when they are expressing causation, increasing the responsibility of the agent for the event.

(152) *Ofa   erá   noga   **er-en**   mes   ogos.*
       s/he   THM   REL   CAUS-do   dog   die
       'he was [the one] who caused the dog [so] he died.'   [D]

(153) *I-osnok   meren   jig   mer   ewes   no-ma-i,   erogá   **er-engit***
       3PL-person   lake   LOC   room   cavity   DNR-far-GIV hence   CAUS-make

       dif   di-efenen.
       I   1SG-hot
       'Lots of people were in the room, so [the room] made me [so] I was hot.' [D]

3.2.1.5.2 Cross-referencing instrument

The manipulative object or instrument, an intermediate entity in the causative chain between the subject/agent and the object/undergoer, is cross-referenced on the verb by the causative prefix *er-* 'CAUS'. The instrument, in Moskona as well as other EBH languages (and Hatam), occurs as the object of a manipulative verb, such as *or* 'hold' in (154) and (155), in an instrument serial verb construction (§9.1.2.6). Thus, an instrument is not expressed as a peripheral argument introduced by a preposition and does not occur under the same simple predicate with the object acted upon.

In (154), *er-* attached to *ojok* 'hit' signals that *mamga* 'pestle', the object of the manipulative verb *or* 'hold', is the instrument. In (155), the prefix *er-* on the verb *ed* 'strike' in the first clause and *ogrer* 'threaten' in the second clause cross-references the instrument *mitowmat* 'metal spear'.

(154) *(ofa) or-a   mamga   **er**-ojok   memned   ebir*
       s/he   hold-PGE pestle   CAUS-hit   cockatoo head
       '(he) hit the cockatoo's head with a pestle'   [T24]

(155) *Ofa   or   mitowmat   ni   **er**-ed   dif,   tiná   **er**-ogrer*
       s/he   hold   metal.spear for   CAUS-strike   I   but   CAUS-threaten

       gijga.
       only
       'He held a metal spear to strike me with, but only threatened with it.'   [D]

The reference to an instrument is understood if the instrument has been made explicit in a previous clause, such as *merga* 'wood', object of the verb *og* 'bend' in the first clause in (156), is understood to be the instrument referenced on the verb *ob* 'break off' in the second clause.

(156) *Bua   bi-og   merga   ni   di-**er**-ob   mok.*
       you   2SG-bend   wood   for   1SG-CAUS-break.off   pandanus
       'Bend (to break off) a stick for me to pick pandanus with.'   [T5]

3.2.1.6 Verbalizer prefix

The verbalizer prefix *ebe-* 'LOAN' adapts loan words from Malay into the lexicon, enabling them to act as verb stems, which may then attach various inflectional prefixes, such as the pronominal prefix *di-* '1SG' in (157). The loan prefix does not co-occur with the causative marker, nor have forms attaching the loan prefix been observed to undergo reduplication. There is frequently a mismatch between the word categories or subcategories of borrowed words and the Moskona form. For example, the verbalizer prefix *ebe-* attached to the intransitive Malay verb *tempel* 'adhere' yields the transitive

stem *ebe-temper* 'paste (on)', or the verbalizer prefix *ebe-* attached to the Malay noun *sekolah* 'school' forms the verb stem *ebe-skor* 'teach, study, attend school'.

(157)   *Dif di-**ebe**-skor*   *jig*   *mod*   *i-**ebe**-skor*   *ewes.*
       I   1SG-LOAN-school   LOC   house 3PL-LOAN-school cavity
       'I study in the school house.'   [D]

Although *oh* 'emit' is frequently used to express the concept of 'selling', the form *ebejuar*, an adaptation of the Malay verb *jual* 'sell', has become common, as in (158).

(158)   *Ofa ecira ni mot **ebe**-juar efeg(a) ni   miyefen.*
       s/he walk on night LOAN-sell body   for   money
       'She [prostitute] walks at night to sell her body for money.'   [TT]

The verbalizer prefix corresponds to the form (e)bV which has been identified by Reesink (2002:16) as a verbalizer in the East Bird's Head languages of Meyah and Sougb, as well as Hatam and the nearby languages of Mpur and Abun.

3.2.2 Categories of verbs

Based on syntactic criteria, there are three categories of verbs distinguished in Moskona: transitive, intransitive and ambitransitive, paralleling the verb categories found in the East Bird's Head languages, Meyah (Gravelle 2004:84) and Sougb (Reesink 2002b:202).

3.2.2.1 Transitive verbs

Although transitive verbs may be distinguished from regular intransitive verbs syntactically, in that they take two core arguments: subject and object, they are also distinguished morphologically, as transitive verbs may attach the reciprocal circumfix *em- -ima* 'RECIP' to signal a reciprocal object, such as the circumfix attached to the transitive verb *eser* 'pass' in (159) which now may only take the peripheral argument *jig pasar*. Transitive verbs are further distinguished from adjectival verbs, an intransitive subcategory, in that they may not modify a noun.

(159)   *I-osnok*   *i-**em**-eser-**ima***   *jig*   *pasar.*
       3PL-person   3PL-RECIP-pass   LOC   market
       'People pass each other in the market.'   [D]

If the object of a transitive verb has been previously stated or can be easily inferred from the context, it may be omitted., such as *marsa ofoga* 'game meat', the object of the verb *ek* 'impale' in (160), is expressed lexically in the first clause, but is implicit as the object of the verb *ah* 'lie' in the final clause.

(160)   *Dif di-ek   mars(a) ofoga jig   merga, erogá   dif   di-oruskej*
       I   1SG-impale   game   flesh   LOC   wood   hence   I   1SG-grasp

       merga   ofoj   rot   ni   di-ah   jig   merah.
       wood   end   about   for   1SG-lie   LOC   fire
       'I skewer the game meat on the stick, so I grasp the end of the stick to roast it
       on the fire.'   [D]

However, if the object is unspecified, as when it is out of focus, then the word *mar*
'thing' is provided as a generic object, as in (161).

(161)   *erogá ofa   oyok   **mar**   rot*
       hence s/he   swear thing   about
       'so she swore (something) as a result'   [T7]

A small group of transitive verbs which can function as main predicates may also serve to
express a prepositional relationship, as minor or secondary verbs in a complex predicate
(§9.2), such as *esha* '(be) from' is the main predicate in (162), but expresses a
prepositional relationship in (163). The transitive verbs *esha* '(be) from', *etkebra* '(be)
short', *éysaha* 'reach', *osuj* '(be) upon' and *okuk* '(be) like' have prepositional functions.

(162)   *Bua   bi-esha   jida   ekir*.
       you.SG   2SG-from   until   empty
       'Take (it) until its gone.'   [D]

(163)   *Eri   i-ot   er-eyj(a)   esen   **esha** dif*.
       they.PL   3PL-stand   CAUS-go.to   far   from   I
       'they stood rather far from me.'   [T29]

In addition to taking a nominal object, some transitive verbs take a clausal object, that is,
they may function as complement-taking predicates (CTPs). CTPs which express speech
events, such as the transitive verb *ejeka* 'call out' in (164), take clausal complements
introduced by the complementizer *ohot* 'say'. CTPs which express mental or cognitive
events, such as *eskijig* 'agree' in (165), take complements introduced by *rot* 'about'.
Verbs of immediate perception and manipulation, such as *ek* 'see' in (166), take
paratactic complements, which are unmarked by a complementizer, but add a separate
proposition to the matrix clause.

(164)   *Edá, eri   i-ejeka   gug ofa   ohot,* [*bi-ofjig   mif*]
       then they.PL   3PL-call.out   to   s/he   say   2SG-help   we.PL
       'Then, they called to him, "help us"' (direct quote)   [T7]

(165)   *yi-**eskijig** rot* [*eri   i-en   skod dif gijga*]
       2PL-agree about they.PL 3PL-come to   I   only
       'you (two) agreed that they should come to me'   [TT]

(166)   *(ofa) **ek**   mogos* [*em-ogos   éra*]
       s/he   saw   snake   IRR-die NEG
       'he saw the snake; (it) wasn't dead'
       'he saw that the snake wasn't dead'   [D]

3.2.2.2 Ambitransitive verbs

There are a few hybrid verbs which do not fall into a single category. These are
ambitransitive verbs, which may function transitively, taking an object argument, or
intransitively, typically occurring with a peripheral argument. When functioning
intransitively, they have the morphological limitation that they may not be reduplicated to
express iterative aspect. Ambitransitive verbs tend to be more morphologically simple, as
very few of these verbs have inflectional affixes beyond the pronominal prefixes.

The posture verbs (*ah* 'lie', *eker* 'sit' and *ot* 'stand'), which primarily express a position
of physical orientation, fall into this group. The posture verb *ah* 'lie' most frequently
functions intransitively with a peripheral argument, as in (167), but may also function
transitively with a meaning like 'lay (s.t.)', as in (168).

(167)   *Bua   bi-**ah**   jig   mer   no-ma-i.*
       you.SG 2SG-lie LOC   room DNR-far-GIV
       'Lie (down) in that room.'   [D]

(168)   *Ofa   **ah**   mesnom   jig merah.*
       s/he   lie   corn   LOC fire
       'He lays (roasts) the corn on the fire.'   [D]

The posture verb *eker* 'sit' functions most commonly as an intransitive verb, with the
extended meaning 'reside', as in (169). When functioning transitively, *eker* takes on the
meaning 'await s.t.', but retains the lexical component of physical position, as in (170).

(169)   *Dadin ayok   erá   **eker** jig mowos ros.*
       1SGPOS mother THM   sit   LOC village still
       'My mother still resides in the village.'   [D]

(170)   *Ofa **eker** dekikir   dif jig mow no-kef.*
       s/he sit   anticipatingly I   LOC land DNR-here
       'He awaited me expectantly at this place.'   [D]

In addition to the posture verbs, there are a few other verbs which may function
intransitively or transitively. The ambitransitive verbs *eti* 'suffer (pain)' in (171), *er*

'hang' in (172), *ahisen* 'play' in (173), *ergerna* 'hail' in (174) and *ow* 'link' in (175) function as intransitive and transitive verbs, as illustrated in examples (a) and (b) for each verb.

	Intransitive		Transitive

(171) a. *Ofa* **eti** *esebra.*
s/he   suffer   continuous
'He suffers all the time.'

b. *Ofa* **eti** *ebir* *efef.*
s/he   suffer   head   ache
'He suffers [in his] head [so]
(his head) aches.' (has a headache)

(172) a. *Mod* *no-ma-i* **er** *jig* *mow.*
house   DNR-far-GIV   hang   LOC   land
'The house hangs to the ground.'(sags)

b. *Bua* *bi-**er*** *miyes* *tum* *baog*.
you.SG   2SG-hang   clothes   on   nail
'You hung the clothes on the nail.'

(173) a. *Eri* *i-**ahisen*** *rot* *bara.*
they.PL   3PL-play   about   ball
'They play with a ball.'

b. *Eri* *i-**ahisen*** *mokres.*
they.PL   3PL-play   guitar
'They play the guitar.'

(174) a. *Osnok* *erg-es* **egerna**-*mena.*
person   NUM:1-one   hail-RED
'Someone hails loudly.'

b. *Ofa* **egerna** *efer* *no-ma-i.*
s/he   hail   child   DNR-far-GIV
'She hails (welcomes) the child.'

(175) a. *Etma* *efer* *no-kef* **ow** *jog*.
arm   sore   DNR-here   link   already
'The sore on his hand has healed already.'

b. *Ofa* **ow** *mosga* *jig* *miy.*
s/he   link   bridge   LOC   water
'He linked the bridge on the river.'

In the other languages of the East Bird's Head, Meyah generally has a greater number of verbs functioning ambitransitively (Gravelle 2004:92), but for Sougb Reesink lists only three ambitransitive verbs (Reesink 2002b:202).

3.2.2.3 Intransitive verbs

Intransitive verbs are verbs which describe a property, state, or situation, involving only one participant. The intransitive category may be subdivided by syntactic and morphological criteria into three types: regular intransitive verbs, detransitivized verbs and adjectival verbs. The inclusion of adjectives as a subclass of intransitive verbs is a feature shared with other East Bird's Head languages (Reesink 2002a:6).

3.2.2.3.1 Regular intransitive verbs

Regular intransitive verbs may only function predicatively, denoting processes, positions or activities. They are distinguished from transitive verbs syntactically, in that they take only a subject argument, and distinguished morphologically in that they cannot by affixed by the reciprocal circumfix. Regular intransitive verbs use reduplication to express

iterative aspect, differentiating them from adjectival verbs which employ reduplication to indicate plurality and intensity. Typical regular intransitive verbs may be seen in antonym pairs, such as:

ecira	'walk'	*ahaw*	'descend'
ofof	'run'	*osok*	'climb up'
esir	'fall down'	*ebisa*	'cry'
eciga	'get up'	*efagigo*	'(be) joyful'
osorna	'be hungry'	*éysaha*	'reach'/ 'appear'
ecka	'be satiated'	*esisef*	'disappear'

Regular intransitive verbs frequently express a resulting state or effect, such as the intransitive verb *ogos* 'die' in (176), or the intransitive verb *eyrir* 'vibrate' in (177), introduced by *erogá* 'hence'.

(176) *(ofa) ojok   yefyen ayok,   erogá **ogos** jog*
       s/he   hit   2DUPOS mother hence die   already
       'he hit their mother, so she died'   [T23]

(177) *Mafif ok   merga   efeg(a), erogá **eyrir**   tusus.*
       wind bear   wood   body   hence vibrate   to.and.fro
       'The wind carried (blew against) the tree trunk, so it vibrated back and forth.' [D]

Regular intransitive verbs may occur as the restricting clause in a relative clause, such as *ahaw* 'descend' in (178), but do not function attributively in a noun phrase.

(178) *Bua   bi-orot   moroj noga **ahaw**   jig   pasar.*
       you.SG 2SG-go.with   path   REL   descend LOC   market
       'Follow the path which descends to the market.'   [D]

3.2.2.3.2 Detransitivized verbs

Some verbs which function as intransitive forms appear to be clearly derived from extant transitive verbs by the attachment of the spatial enclitic *–ef* 'near', with the visibility prefixes *i-* / *u-* occurring optionally. As a type of semantic passive, the agent is not expressed, only the undergoer is present. (cf. Foley and Van Valin 1985:322) The subject of a detransitivized verb is often the object of the transitive verb, thus subjects of detransitivized verbs are patients. In a clause like *Eri ukuk srad-efi*, 'They rolled up the document' in (179), the object of the transitive verb *okuk* 'roll up' is the subject of the detransitivized form *okukif* in (180).

(179)   *Eri*   ***i-okuk***   *srad-efi.*   [ókuk]
         they.PL   3PL-roll.up   document-leaf
         'They rolled up the document.'   [D]

(180)   *Srad-efi*   *erá*   ***okuk=i-ef.***   [ókukíɸ]
         document-leaf   THM   roll.up=VIS-near
         'The document rolled up.'   [TT]

The final /a/ of verb roots, such as *eyorga* 'lower' in (181) and *oksa* 'turn over' in (183), undergoes syncope before the clitic –*ef* is attached, as in (182) and (184).

(181)   *Dif di-**eyorga** mesina.*   [eóɾga]
         I   1SG-lower stringbag
         'I lowered the stringbag.'   [D]

(182)   *Dif di-**eyorg(a)=i-ef***   *jig*   *kursi.*   [eoɾgíɸ]
         I   1SG-lower=VIS-near   LOC   chair
         'I lowered into the chair.'   [D]

(183)   *ofa*   ***oksa***   *meni*   *noga* *oyna* *jig*   *merah*   [óksa]
         s/he   turn.over   banana   REL   cook   LOC   fire
         'she turned over the bananas which (she) cooked on the fire'   [D]

(184)   *edá*   *(ergog)* *y-**oks(a)-ef***   *somus*   [oksɛ́ɸ]
         then   they.DU   DU-turn.over   back
         'then they turned back around'   [T7]

Detransitivized verbs may attach a reduplicant before attaching the spatial clitic, such as the verb *oynginga* 'fold repeatedly' in (185).

(185)   *Ofa ah rot   miyes, erogá miyes   no-ma-i   **oyng-ing=i-ef.***
         s/he lie about clothes hence clothes DNR-far-GIV   fold-RED-VIS-near
         'He laid down in his clothes, so the clothes folded repeatedly (wrinkled).'
         [D]

The list in Table 3.4 gives a few additional transitive verbs and the intransitives derived from them.

Table 3.4 Derived intransitive verbs

Transitive		Intransitive	
ahada	'release s.t.'	*ahad(a)=ef*	'loosened'
ejij	'twist s.t.'	*ejij-i-ef*	'spiral'
esha	'(away) from'	*esh(a)=ef*	'get away'(escape)
esis	'exclude'	*esis=ef*	'(be) lost'
oduy	'front/face s.t.'	*oduy-d=i-ef*	'curl up'
og	'bend s.t.'	*og=i-ef*	'bend'
ohma	'tear loose'	*ohm(a)=ef*	'tore loose'
oksa	'over turn s.t.'	*oks(a)=ef*	'turn over'
osorsa	'melt s.t.'	*osors(a)=ef*	'liquify'

3.2.2.3.3 Adjectival verbs

Adjectival verbs, as a subcategory of intransitive verbs, have a root-initial non-high vowel: *e*, *o*, or *a*. They are distinguished from regular intransitive verbs, in that, although they may function predicatively, they are most commonly used as modifiers of a head noun in a noun phrase.

When functioning predicatively, all adjectival verbs are obligatorily inflected with a pronominal prefix indexing subject, such as the prefix *di-* '1SG' attached to the descriptive adjectival verb *ofojok* '(be) poor' in (186), or the prefix *y-* 'DU' attached to the descriptive adjectival verb *orokec* '(be) large' in (187).

(186)   *Dif **di-ofojok** nom.*
       I   1SG-poor   VER
       'I'm truly poor.'   [D]

(187)   *y-efer   no-ma-i   **y-orokec** jog*
       DU-child   DNR-far-GIV   DU-large   already
       'The (two) children were already large (grown).'   [T23]

Adjectival verbs with non-human subjects are always inflected with third person singular, a null morpheme, such as the resultative adjectival verb *efej* '(be) dried' with the subject *merga owoka* 'outgrowth' or 'sticks' in (188) or the descriptive adjectival verb *etu* '(be a) short interval' with the inalienable noun *osum* 'nose' as subject in (189). Only rarely is an adjectival verb with an inalienable noun as subject inflected to agree in person and number with the possessor, as is *obrer* 'sunken in' in (190).

(188)   *merga   owok(a)   **efej***
       wood   outgrowth dried
       'the stick(s) are dried out.'   [D]

(189)   *Bi-osum   **etu**   edegejg(a)   mef   osum*.
       2SG-nose   short.interval   match.up   bat   nose
       'Your nose is stubby [and] (it) matches a bat's nose.'   [D]

(190)   *Eri-orna   ekena   i-efeg(a)   **i-obrer***.
       they.PL-man   red   3PL-body   3PL-sunken.in
       'The old men's bodies are sunken (shrivelled).' (red man = elderly)   [D]

When adjectival verbs are negated, they are obligatorily inflected with the irrealis marker *em-* 'IRR', such as the descriptive adjectival verb *otka* 'tasty' in (191).

(191)   *marsa   ofoga   no-kef   **em-otka**   néesa   eke.*
       game   meat   DNR-here   IRR-tasty   not.yet   almost
       'this game meat is not quite tasty yet.'   [D]

Because adjectival verbs express states, not processes, they may not be inflected with the durative aspect marker *en-* 'DUR', as durative aspect reflects a dynamic event. Some adjectival verbs may be inflected with the causative prefix *er-* 'CAUS' to derive an inchoative meaning (§3.2.1.5.1).

When used attributively in a noun phrase, adjectival verbs are inflected to agree with the person and number of the noun which they modify, such as the adjectival verb *osmoms* '(be) strange' in (192), is prefixed with *i-* '3PL', agreeing with *eri* 'they.PL', a pronoun referring to humans. Adjectival verbs modifying nouns which refer to nonhuman entities are inflected with third person singular, a null morpheme, such as the adjectival verb *aksa* 'tall', modifying *marefen* 'grass' in (193).

(192)   *eri   **i-osmo(m)s**   noga   i-ebah   ji(g)=kef*
       they.PL   3PL-strange   REL   3PL-live   LOC=here
       'the strange ones (foreigners) who live here'   [D]

(193)   *Bua   bi-or   bi-egak   bi-er-efna   marefen   **aksa**   fen   moroj.*
       you.SG   2SG-hold   2SG-leg   2SG-CAUS-flat   grass   tall   from   path
       'Flatten the tall grass with your foot away from the path.'   [D]

3.2.2.3.3.1 Intensification of adjectival verbs

Intensification of adjectival verbs is primarily accomplished morphologically by the use of two different reduplicative templates: the VC$_m$VCV template for intensification of quality and the VCVCV template for intensification of quantity. When an adjectival verb functions predicatively, the reduplicant construction -VC$_m$VC(V) may be attached to indicate an intensification of quality. In color adjectival verbs, such as *ekena* 'red' in (194) or *ofraha* 'green' in (195), the reduplicant signals intensification of brightness. On descriptive adjectival verbs and resultative adjectival verbs, such as the descriptive

adjectival verbs *eskeyra* 'clear' in (196) and *otka* 'tasty' in (197), or the resultative adjectival verb *okorek* '(be) sunken' in (198), the reduplicant signals an increase in the degree.

(194)   *Mok(ta) no-ma-i   erá, owos **eken-amena**.*
          pandanus DNR-far-GIV THM skin red-RED
          'The pandanus, its skin is bright red.'   [D]

(195)   *Mewet no-ma-i   owos **ofrah-amah(a)** ros.*
          squash DNR-far-GIV skin green-RED   still
          'The squashes' skin is still bright green.'   [D]

(196)   *Miy no-ma-i   erá, efen(a) **eskeyr-amera** gijga*
          water DNR-far-GIV   THM spirit   clear-RED   only
          'The water, its depths are just very clear.'   [T29]

(197)   *Ofa   or   fercin er-eska   marsa ofoga ni **otk-omok**.*
          s/he   hold spices CAUS-sprinkle game flesh for tasty-RED
          'She sprinkles the game meat with spices so it is tasty.'   [D]

(198)   *Bar ah rahu,   erogá **okorek-mek**.*
          ball lie long.time hence sunken-RED
          'The ball sat a long time, so it is very deflated.'   [D]

Adjectival verbs utilize reduplication to signal intensification of quantity using the -VCVCV template. That is, the reduplicant adds the meaning 'many' (for countable things) or 'much' (for measurable things) to the adjectival verb, such as the reduplicated descriptive adjectival verb o*kukum* 'many heavy (items)' in (199), or the reduplicated color adjectival verb *ekekena* 'much red (material)' in (200). An adjectival verb may be intensified for quantity whether it modifies a head noun in a noun phrase or whether it functions predicatively. The reduplicated resultative adjectival verbs *ofojoj* 'many blunted (items)' in (201) and *efejej* 'many dried (items)' in (202) modify a head noun. The reduplicated descriptive adjectival verb *oskoska* '(be) many small (items)' in (203) and the color adjectival verb *erirka* 'yellow' in (204) function predicatively.

(199)   *ofa   ok   mar oku-**kum***
          s/he   bear thing heavy-RED
          'she carried many of heavy things'   [D]

(200)   *I-eferiok   i-ahisen   rot   bara jig   mow **eke-ken(a)**.*
          3PL-sm.child 3PL-play   about ball LOC land red-RED
          'The small children play ball in the clearing.'
          (much red land = large area cleared of vegetation)   [T28]

(201)   *Ofa   ecira ah eyrir   kuk   mogom* **ofoj-oj**
        s/he   walk   lie   vibrate   along   stone   blunted-RED
        'he walks [and] skirts along the boulders' (blunted rock = boulder)   [D]

(202)   *m-efsa   **efej-ej***
        NR-white   dried-RED
        'salt granules' (dried white thing = salt)   [D]

(203)   *Bua   bi-ocunga   mergej   owok   osk-**osk(a)***
        you.SG   2SG-snap.in.pieces   firewood   outgrowth   small-RED
        'Snap the firewood sticks [so] they are many small (pieces).'   [D]

(204)   *Modenk(a)   no-ma-i   ofon   owos   noga **erirk-irk(a)***.
        citrus   DNR-far-GIV   3SGPOS   produce   REL   yellow-RED
        'The citrus (tree) has many fruit which are yellow.'   [D]

3.2.2.3.3.2 Color adjectival verbs

The color system of Moskona distinguishes six colors, placing it in Stage V of the color terms continuum introduced by Berlin and Kay (1969), who suggest that there are eleven basic color terms, organized hierarchically as:

white <   red <   green   <   blue <   brown   <   purple/pink
black   yellow   orange/grey

Any stage of the color terms which has a color anywhere on the hierarchy also has all color terms (and distinctions) which occur to the left of it. Berlin and Kay suggest that these eleven color terms act as focal points for all basic color words and arose in the sequence indicated by the hierarchy. The colors distinguished in Moskona are:

ahta   'black'   (ranging from black to extremely dark colors)
efsa[23]   'white'   (ranging from white to pale yellow and green)
ekena   'red'   (ranging from red to brown)
erik   'yellow' (ranging from yellow to orange)
ofraha   'green'
enira   'blue'

The color adjectival verbs are distinguished from descriptive adjectival verbs in that they do not occur in a degree verb serialization. However, color adjectival verbs may be modified by the phrase *ofoms(a) ahta* 'black core', denoting a darker shade of the color, as is the color adjectival *enira* 'blue' in (205). (The color *efsa* 'white' is an exception, as it is intensified by the unique suffix *–ned ~ -nad* 'very'.)

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[23] *efsa ~ ebca ~ ewsa* 'white'.

(205) *Bua   buwun   miyes   no-ma-i   erá **enir(a)** ofoms(a) ahta.*
     you.SG 2SGPOS   clothes DNR-far-GIV THM blue   core   black
     'You your clothes are dark blue.'   [D]

Color adjectival verbs may be used predicatively, such as *enira* '(be) blue' in (205), or *ofraha* 'green' and *ekena* 'red' in (206) and may also as the modifier of a head noun in a noun phrase, such as *erirka* 'yellow' modifying *egak* 'leg' in (207).

(206) *Mohus   erá,   ofon   efej   **ofrah(a)**   dokun   **ekena**.*
     lg.parrot THM 3SGPOS hair   green   and   red
     'The large parrot, his feathers are green and red.'   [D]

(207) *Maw eyj egak **erirk**-irk(a)*
     sun   toss leg   yellow-RED
     'The sun throws off lots yellow rays'   [T27]

As predicates, color adjectival verbs are not marked for causative; rather a verbal construction composed of the verb *ec* 'become' plus a color verb is used to indicate a change in state, as in (208).

(208) *mar   ec   **ekena** noga okuk ofuga.*
     thing become red   REL   like   blood
     'the thing became red which was like blood'   [TT]

3.2.2.3.3.3 Descriptive adjectival verbs

Descriptive adjectival verbs denote a value (good, bad, etc.), dimension (big, thick, etc.) or property (soft, heavy, etc.) and many can be illustrated in antonym pairs:

oyfa	'good'	*okucka*	'narrow'	*orokec*	'big'
oskur	'bad'	*otoh*	'wide'	*oska*	'small'
ofusi	'light-weight'	*aharga*	'dry'	*ofres*	'simple'
okum	'heavy'	*etefa*	'wet'	*ahaysa*	'hard'
ofom	'hot'	*efenga*	'thin'	*aksa*	'tall'
ogugar	'cold'	*ofusum*	'thick'	*etkebra*	'short'

Descriptive adjectival verbs are distinguished syntactically from other adjectival verbs, in that they can occur as the major verb in a degree verb serialization (§9.1.2.7.3), a type of ambient SVC, in which they are intensified by a generic intensification verb, *eseter* 'much more' or *etew* 'much'. For example, the descriptive adjectival verb *aksa* '(be) tall' is intensified by *eseter* in (209), or *otuy* 'tightly packed' is intensified by *etew* '(be) much' in (210).

(209)   *Ofon   owock(a)   **aksa**   eseter*
        s/he   sprout   tall   much
        'It's sprouts (branches) were very tall.'   [T23]

(210)   *Medeg   efca   **otuy**   etew*.
        bamboo   hub   tight.packed   much
        'The stand of bamboo is really dense.'   [D]

Descriptive adjectival verbs when functioning as predicates are obligatorily inflected to indicate subject, such as *oyfa* '(be) good' is inflected with *di-* '1SG' in (211), or *okum* '(be) heavy' in (212) is inflected with third person singular, reflecting its nonhuman subject.

(211)   *tiná   kus   no-kef   erá   di-**oyf**-omof.*
        but   short.span DNR-here   THM   1SG-good-RED
        'but now (I) am good (healthy).'   [D]

(212)   *Karmom   no-ma-i   **okum**   eseter.*
        thick.metal   DNR-far-GIV   heavy   much.more
        'The metal was very heavy.'   [D]

Descriptive adjectival verbs may modify a head noun, such as the adjectival verb *ofufom* 'hot' modifies *miy* 'water' in (213), or *otoh* 'wide' modifies *mudua* 'mat' in (214).

(213)   *Miy   **ofufom** no-ma-i   efet   di-etma.*
        water hot   DNR-far-GIV   scorch   1SG-hand
        'The hot water burned my hand.'   [T29]

(214)   *Bua   bi-er-os   mudua   **otoh**.*
        you.SG 2SG-CAUS-move.horiz.   mat   wide
        'Spread out the wide mat.'   [D]

3.2.2.3.3.4 Resultative adjectival verbs

Resultative adjectives denote states which are the result of a process, such as:

obrer	'(be) sunken in'	*efej*	'(be) dried (out)'
ofoj	'(be) blunted'	*ebka*	'(be) cracked (apart)'
ofor	'(be) dehydrated'	*efieyja*	'(be) ready to eat'
oforsa	'(be) charred'	*efrir*	'(be) broken in pieces'
oysa	'(be) finished'	*egiger*	'(be) cooled down'

Resultative adjectival verbs may be used predicatively in a clause, such as *obrer* '(be) sunken' in (215), and when negated, are obligatorily inflected with the irrealis marker *em-*, as is *efieyja* 'ready to eat' in (216).

(215)   *Efer   no-ma-i   **obrer**-ah.*
         child   DNR-far-GIV   sunken.in-INTS
         'The child is quite sunken in.' (i.e. his body is shrunken)   [D]

(216)   *tiná   **em-efieyja**   nes-is   éra.*
         but   IRR-ready.to.eat   quickly-RED   NEG
         'but (it) wasn't ready to eat very quickly'   [T23]

Resultative adjectival verbs may function attributively in a noun phrase, such as *ekenga* 'restricted', modifying *mar* 'thing' in (217), or *ofor* 'dehydrated', modifying *gura* 'sugar' in (218).

(217)   *Bua   m-et   mar **ekenga**   edak.*
         you.SG   IRR-eat   thing   restricted   NEG.DEON
         'Don't eat the prohibited thing.'   [D]

(218)   *Eferiok   omna gur(a)   **ofor**.*
         sm.child   lick   sugar   dehydrated
         'The child licked the granulated sugar.'   [D]

3.2.2.3.3.5 Adjectival verb intensifier –*ah(a)*

The suffix –*ah(a)* 'INTS', which signals greater degree, is an intensifier occurring on adjectival verbs only, such as the descriptive adjectival verb *efena* 'new' in (219).

(219)   *Dif di-ec   miyes   i-egak   **efen(a)-ah**   no-kef   jig   pasar.*
         I   1SG-buy   clothes   3PL-leg   new-INTS   DNR-here   LOC   market
         'I bought these quite new pants in the market.'   [D]

The adjectival intensifier –*ah(a)* has been observed to occur on adjectival verbs, such as:

efi-ah	'quite sharp'
efieyj-ah	'quite ready-to-eat'
obrer-ah	'quite sunken in'
ofog-ah	'quite pointed'
ohur-ah	'quite bare'
okurg(a)-ah	'quite coarse (texture)'
oskur-ah	'quite bad'

The suffix –(*w*)*i* 'DIM' indicates a lesser degree or intensity of the quality. In my data, it occurs on only these descriptive adjectival verbs:

efeyu-wi	'slightly immature'
ahta-wi	'a little black' (soiled)
ahtuk-wi	'a bit dirty'

3.2.2.3.3.6 Adjectival qualifier *susuy*

There is one qualifier word *susuy* 'other kind', which has a consonant-initial root, distinguishing it from adjectival verbs. It is morphologically simple and takes no affixation. The qualifier *susuy* 'other kind' is reduplicated in its base form and only functions as a modifier, filling the same position in a noun phrase as adjectival verbs, such as modifying the personal pronoun *eri* 'they.PL' in (220), or the noun *isnok* 'people' in (221).

(220)   *Ofa eyj   miyefen noga orokec gug   eri   **susuy**.*
        s/he toss   money   REL big   to   they.PL   other.kind
        'He loaned a lot of money to those other kinds (of people)' (i.e. outsiders)   [D]

(221)   *Ofa   or-a   ariawun   er-emk(a)   i-osnok   **susuy**[24].*
        s/he   hold-PGE medicinal.treatmt CAUS-poison   3PL-person   other.kind
        'He poisoned other kinds of people [not relatives] with a drug.'   [T15]

3.2.2.3.3.7 Indefinite quantifier verbs

Indefinite quantifiers are adjectival concepts which vaguely describe totalities, focusing on the aggregate rather than the individual (Croft 1991:134). In Moskona indefinite quantifiers are almost entirely verbal. As a subcategory of adjectival verbs, indefinite quantifier verbs function both predicatively and attributively in noun phrases. (Definite quantities are expressed through a numeral, discussed in §6.3.4.1.) Indefinite quantifier verbs have nearly all the same properties as all adjectival verbs, that is, they have a root-initial non-high vowel (*e*, *a*, or *o*), attach inflectional prefixes for subject and mode, do not take an aspectual prefix, but differ in that they only rarely undergo reduplication. Most of the indefinite quantifier verbs are morphologically simple, and many have a reduplicated form as their root. Many of these quantifiers, which describe the extent of an item or event, are synonyms or near synonyms of each other, as in the following list:

ognunui	'many'(same kind)	*eseter*	'(be) much more (than)'
edes	'many' (different kind)	*ahabnina*	'few' ~ 'little bit'
etew	'much'	*eyneyna*	'lots' / 'many'
orokec	'large' / 'lots'	*oskaytok*[25]	'small (bit)'

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[24] *Isnok* 'people' generally refers to one's relatives or clan members. *Isnok susuy* are people outside the clan.

Indefinite quantifier verbs, such as *eseter* 'much more' in (222), may function as the main predicate in a clause, or as a minor verb in a SVC (§9.1.2.7.3), such as *eseter* modifying *ognunui* 'many' in (223). When negated, they are obligatorily affixed with the irrealis marker *em-*, as is *edeses* in (224).

(222) *Mek   no-ma-i,   ofon   ewes **eseter**.*
        pig   DNR-far-GIV 1SGPOS fat   much.more
        'The pig, his fat is a lot' (i.e. has a lot of fat)   [D]

(223) *Mar no-ma-i   romreg ognunui   **eseter**.*
        thing DNR-far-GIV all   many   much.more
        'All those things were very many.'   [T14]

(224) *I-osnok   u-ofojok erá, erin   marotot   **em-edes-es**   éra.*
        3PL-person 3PL-poor THM 3PLPOS goods   IRR-many-RED   NEG
        '[As for] poor people, their goods aren't many.'   [D]

The indefinite quantifier *etew* 'much' has been observed to take the causative prefix when functioning as the minor verb in an ambient SVC, as in (225). No other indefinite quantifier verbs have been observed to attach the causative prefix.

(225) *Dif di-eteyj(a) omg-omga   **er-etew**   jig   jog.*
        I   1SG-eye   blurred-RED CAUS-much LOC   already
        'My eyes are already blurred, (it) is a lot.'   [T23]

When functioning attributively in a noun phrase, an indefinite quantifier verb occurs preceding a demonstrative, such as *edeses* 'many' precedes the demonstrative pronoun *nomi* 'that' in (226).

(226) *Mar **edeses** no-ma-i,   ofa orusoht(a) jig ofaha   oduy ewes-a*
        thing many   DNR-far-GIV s/he think   LOC 3SGRX   front cavity-RED
        'Those many things, he thought in his own heart'   [T27]

Like other adjectival verbs, when an indefinite quantifier verb modifies a noun referring to a human, it requires a pronominal prefix agreeing with the person and number of the noun modified, such as *ognunui* in (227) is prefixed with *i-* '3PL'. Indefinite quantifier verbs modifying nouns which refer to non-humans are prefixed with the third person singular marker, a null morpheme, such as *ognunui* 'many' modifying *motur* 'star' in (228) and *oskaytok* 'small' modifying *mar* 'thing' in (229).

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[25] The indefinite quantifier verb *oskaytok* is quite likely a word composed of *osk(a)* 'small', the diminutive *-i*, plus the adverbial *tok* '(individual) location' or 'spot'.

(227)   *i-osnok   i-**ognunui** dokun i-oyf-omof   tin   i-en-ebah...*
         3PL-person   3PL-many and   3PL-good-RED also   3PL-DUR-live
         'many good people also were living....'   [T7]

(228)   *Dif di-ek   motur **ognunui**   ot   jig meybaga*
         I   1SG-see   star   many   stand LOC sky
         'I see many stars in the sky'   [D]

(229)   *Mar **oskaytok-ok** no-mis-i   noga eyet   jig   egak...*
         thing small-RED   DNR-former-GIV REL adhere LOC leg
         'The little bits which adhered to his leg...'   [T29]

There is an indefinite quantifier which has a root-initial non-high vowel like the verbs, but takes no prefixes. The indefinite quantifier *owos* 'bundled' or 'collection' expresses the characteristic of a physical grouping, collection, or bundle of things, which may or may not be heterogeneous. The quantifier *owos* modifies nouns, such as *membef* 'spinach' in (230), and in a manner SVC as a minor verb, it modifies the entire preceding clause, as in (231) and (232).

(230)   *Dif di-oduy   os-os   rot   membef   **owos***
         I   1SG-front move.horiz.-RED   about   spinach   bundled

         nog(a)-i-da-i   gijga.
         REL-VIS-up-GIV   only
         'I only want the bundle of spinach which is up here.'
         (front moves horizontally = want)   [D]

(231)   *Orna ciyja eri   i-en   mar   **owos***
         man five they.PL 3PL-do thing   bundled
         'The five men, they do things, (it) is in groups'
         'The five men, they do things (work) as a group.'   [D]

(232)   *edá   (eri)   romreg i-ebah-a   **owos***
         then   they.PL all   3PL-live-PGE   bundled
         'then (they) all live, (it) is in groups'
         'then they all live as a group'   [T3]

The indefinite quantifier *enia* 'some other' only modifies nouns, such as *isnok* 'people' in (233), and may not function predicatively. When modifying a noun referring to a human, it is not inflected to agree with the person and number of the noun. This lack of inflection contrasts it with the Meyah cognate *eneya* 'some', an indefinite quantifier verb which takes pronominal prefixes, agreeing with the person and number of the nominal referent (Gravelle 2004:87).

(233)   *Efer   no-ma-i,   ofa ahr-ahra   rot   i-osnok   **enia**.*
       child   DNR-far-GIV   s/he associate-RED   about 3PL-person   some.other
       'The child, he is friendly with some other people.'   [D]

3.2.3 Functions of the reduplicative process in verbs

The reduplicative process interacts with each verb category on the basis of its inherent aspectual status (Aktionsart) to modify its meaning. Those roots which are reduplicated are primarily verbs. On regular intransitive and transitive verbs, the function is aspectual, that is, it is iterative for intransitive verbs and continuous for transitive verbs. In adjectival verbs, reduplication serves to intensify the degree of the quality or quantity.

3.2.3.1 Iterative aspect

Iterative aspect involves a punctual event repeated on a single occasion (Comrie 1976:42), distinguishing it from habitual aspect in which an action is repeated on several different occasions. Habitual aspect (§3.2.1.4) is expressed in Moskona only through the prefix *en-* 'DUR', which never occurs on an intransitive verb which has been reduplicated. Reduplication expresses iterative action for regular intransitive verbs. Those regular intransitive verbs, such as *ohas* 'hop' in (234), which express punctual aspect through events involving a single cycle, are not durative or on-going in any way (i.e. have a clear end point), thus when a single cycle intransitive verb attaches a reduplicant, it expresses iterative aspect. The reduplicated intransitive verb *etu* 'short interval' in (235) indicates that there are multiple cycles of the action (dripping) in a single event, or the reduplication of *ewer* in (236) exemplifies a punctual event repeated on a single occasion.

(234)   *Moshu-a no-ma-i   **ohas-has**   tusus   jig miteyj-eyja.*
       frog-PGE   DNR-far-GIV   hop-RED   to.and.fro LOC swamp-RED
       'The frogs hop to and fro repeatedly in the swampy areas.'   [D]

(235)   *Dif di-eg   miy   okow **etu-etu**   jig   mod ejmeg.*
       I   1SG-hear water foot   short.interval-RED   LOC   house spine
       'I heard water dripping behind the house.' (water's foot = drop of water) [D]

(236)   *Eferiok   no-ma-i,   ofon   eytoh **ewer-wer**.*
       small.child   DNR-far-GIV   3SGPOS   tears cross-RED
       'The small child, his tears crossed (fell) repeatedly.'   [D]

A detransitivized verb, such as *oyngif* 'fold' in (237), may also express iterativity when reduplicated. *Oyngingif* has the meaning 'fold many times' or '(be) wrinkled'.

(237)   *Ofa ah rot   miyes, erogá miyes no-ma-i   **oyng-ing=i-ef**.*
       s/he lie about clothes hence clothes DNR-far-GIV   fold-RED-VIS-near
       'He laid down (slept) in his clothes, so the clothes folded many times

(wrinkled).'   [D]

Iterative aspect for a transitive verb is expressed primarily through adverbs (§4.2.1.1), adverbial phrases (§4.1.3.2) or serial verb constructions (§9.1.2.7.2). There are a few examples in Moskona of reduplicated transitive verbs, such as the transitive verb *er* 'stir' in (238). When reduplicated with *miy* 'water' as its object, it refers to swimming.

(238)   *Ofa or   merga   er-et   ohka   ni   **er-er**   miy.*
         s/he hold   wood   CAUS-support   chin   for   stir-RED   water
         'He supported his chin with the wood to swim.'   [D]

Reduplication of a transitive verb root occurs before inflectional affixes are added. The reciprocal circumfix attaches around the entire root complex. The verb *eregejga* 'wrap around' in (239) is reduplicated to indicate iterative action, the reciprocal morpheme *em--ima* attaching on either side of the suffixed form.

(239)   *Ofonga em-eregejg-ejg-im(a).*
         tendril   RECIP-wrap.around-RED
         'The tendrils wrapped around and around each other.'   [D]

3.2.3.2 Continuous aspect

Those verbs which have an unchanging activity throughout the cycle express continuous aspect through reduplication, in contrast to multiple cycles of a single event. Verbs expressing unchanging situations, like *ah* 'lie' in (240), *oyka* 'dance' in (241) or *ahda* 'itch' in (242), in which all phases of the cycle are the same, the status being unchanged throughout, are reckoned as closer to continuative when reduplicated.

(240)   *Dif di-ek   miy   mojma   odog   **ah-ah**.*
         I   1SG-see water ocean   belly   lie-RED
         'I saw the surface of the ocean was lying (flat).'   [D]

(241)   *Eri   i-**oyk-oyka**   eyja   er-os   mon(a)   esif.*
         they.PL 3PL-dance-RED   go.to   CAUS-move.horiz.   day   open
         'They danced continuously until dawn.'   [D]

(242)   *Daud egak efer-a   oskaytok   ec   efer   noga   **ahd-ahda**.*
         David leg sore-PGE small   become   sore   REL   itch-RED
         'David's small sore on his leg became an constant irritation.'   [TT]

The reduplicated transitive verbs *ohosha* 'shake' or 'sway' (243), *om* 'enclose' (244) and *omka* 'sleep deeply' in (245), express continuous aspect rather than iterative. Reduplicated regular intransitive verbs may attach the irrealis prefix *em-* 'IRR', as does *omkomka* in (245).

(243) *Ofa ecira* **ohosh-osha** *efega.*
s/he walk   shake-RED   body
'She walks [and] continuously sways her body.'   [D]

(244) *Merah   ofoga   **om-om***   *bi-eteyj(a).*
fire   cloud   enclose-RED   2SG-eye
'The smoke continuously encloses (obscures) your eyes (view).'   [T29]

(245) *Ofa   em-**omk-omka***   *rahasis.*
s/he   IRR-sleep.deeply-RED   entire.day
'He would sleep continuously all day.'   [D]

3.2.3.3 Intensification of degree and quantity

The primary strategy Moskona employs to intensify adjectival verbs is through a reduplicative suffix (§3.2.2.3.3.1), either the reduplicative template -VCVCV to signal intensification of the quantity or the reduplicant construction -VC$_m$VC(V) to signal intensification of quality.

A few inalienable nouns, like *efi* 'liquid' and *ofuga* 'blood', may be reduplicated to derive adjectival verbs, which have been observed to function only attributively in noun phrases, such as *ofgofga* 'bloody' modifying *marsa* 'game (meat)' in (246).

efi   'liquid' >   *efi-fi*   'liquified'
ofuga   'blood' >   *ofg-ofga*   'bloody'

(246) *mars(a)* **ofg-ofga**   [óɸgóɸga]
game   blood-RED
'bloody game (meat)'

3.2.4 Verb compounds

Moskona has only a few verb compounds. Compounds are defined as consisting of (at least) two separate elements from open lexical classes which function syntactically as a single lexical unit. Compounds are distinguished from phrases, in that their meaning may be semantically non-compositional, that is, other than the sum of their parts. They may form a single phonological word, having only one contrastive accent per syntactic unit. They are unitary forms, as it is not possible to insert parenthetical material or a pause between their components, nor is it possible for a component to be modified individually. The first component of a verb compound is always a verb; the second component may be either a noun or a verb.

3.2.4.1 Verb-noun compounds

Although the constituent order of verb-noun compounds is the same as that found in transitive clauses, the first component typically is an intransitive verb and the second a noun. This syntactic violation gives evidence to the nature of the compound as a unitary construction. Most of these compounds have been formed from a verb-plus-peripheral argument sequence which has elided the preposition. The list of verb-noun compounds below is fairly comprehensive.

(247)　*ah-miy*　　　　　[áxmɪj]
　　　lie-water
　　　'bathe'

(248)　*oj-miy*　　　　　[ódʒmɪj]
　　　descend.in-water
　　　'drown'

(249)　*ah-mersa*　　　　[áxmɛɾsa]
　　　lie-floor
　　　'sleep on the floor'

(250)　*oyka-mersa*　　　[óykɛmɛɾsa]
　　　dance-floor
　　　'dance indoors'

(251)　*er-of-mow*　　　　[oɾóɸmow]
　　　CAUS-slap-land
　　　'dance outdoors'

(252)　*ah-m-es*　　　　　[áxmɛs]
　　　lie-NR-male
　　　'marry' (female term)

Verb-noun verbal compounds act as intransitive verbs and may attach the prefixes which occur on intransitive verbs, such as *em-* attached to *oyka-mersa* in (253). When negated, a verb compound is obligatorily inflected with the mode morpheme *em-* 'IRR', as is *ah-miy* in (254) and *ah-mes* in (255).

(253)　*Eri-ej-a,*　　　*eri-es-a*　　*i-or*　*i-etma,*　　***i-em-oyka-mers(a)***
　　　they-female-PGE they-male-PGE 3PL-hold 3PL-arm   3PL-IRR-dance.floor

　　　esebra.
　　　continuous
　　　'Women, men holding arms, would dance inside continuously.'　　　[T24]

(254)   *Ofa owos esis* [*rot*] *eri   noga **i-em-ah-miy**   éra.*
          s/he skin hurt   about they.PL REL   3PL-IRR-bathe   NEG
          'He is annoyed at those who don't bathe.' (skin hurt = annoyed)   [D]

(255)   *Ej-efer   no-ma-i,   ofa **em-ah-m-es**   néesa.*
          female-child DNR-far-GIV   s/he IRR-lie-NR-male   not.yet
          'The young woman, she isn't married yet.'   [D]

3.2.4.2 Verb-verb compounds

Verb-verb compounds, which originally were constituents of serial verb constructions, are restricted to commonly associated actions which express culturally-recognized events with idiosyncratic meanings, such as *om-ecicka* (enclose-drop) in (256), meaning 'place/hang a pot', *esah-owos* (put-bundle) meaning 'prepare s.t.' in (257), or *ot-ohobta* (stand-stare) 'observe' in (258). These verb-verb compounds are mid-way on the continuum between serial constructions and fused verbs. They are more tightly knit than serial verb constructions in Moskona, as they are single phonological words, such as *os-oynga* [osúŋga] 'sever by folding', composed of *os* 'sever' and *oynga* 'fold'. All SVCs are composed of phonologically independent verbs.

(256)   *Eri   **i-om-ecick(a)**   mitos osoror   jig merah.*
          they.PL 3PL-enclose-drop   pot   suspended LOC fire
          'They hung the pot [so] it was suspended over the fire.' (enclose-drop = hang)

(257)   *eri   **i-esah-owos**   rot*
          they.PL 3PL-put-bundle   about
          'they prepared for (it)' (place group = prepare)   [T2]

(258)   *Eri   i-osra   ruruy   ni   **i-ot-ohobta**[26]   eri   noga* ...
          they.PL 3PL-enter   unrestrict. for   3PL-stand-stare   they.PL REL
          'They freely entered to observe those who ....' (stand stare = observe)   [D]

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[26] Although similar in structure to continuous aspect serialization, the first component of the verb-verb compound *ot-ohobta* 'observe', may not be replaced by another of the posture verbs.

Chapter 4
Minor word classes

4.0 Introduction

This chapter presents the minor word classes, which are distinguished primarily on syntactic criteria. They are closed and fairly small, though new members may be added occasionally. The largest of these classes is the adverb class (§4.1), the discussion of which also includes the adverbials. The next class presented is the numeral class (§4.2) and includes a discussion of the numeral and sortal noun classifiers and non-enumerative usages for numerals. Prepositions are presented in §4.3. The classes of conjunctions (§4.4) and question words (§4.4), which are quite small, are really groupings of words which function similarly.

4.1 Adverbs and adverbials

Adverbs are a distinct lexical class based on syntactic and morphological criteria. They can modify predicates, clauses or whole sentences, but cannot be the head of a noun phrase, are not inflected for agreement and may be negated only when functioning as a non-verbal predicate. The clausal position of adverbs is fairly inflexible with the notable exception of focus adverbs.

Adverbs are monomorphemic and may be distinguished from the noun and verb classes on the basis of their root-initial segment, a segment which is a consonant which is not /m/. This consonant-initial characteristic of adverbs instantiates a morphophonological feature of EBH languages in which a root-initial segment serves as an identifying feature of the word class. Reesink lists the adverbs of Sougb (2002b:234) as consonant-initial with only two exceptions. Meyah adverbs, with the exception of a few temporal adverbs, are consonant-initial also (Gravelle 2004:154).

Adverbials, in contrast to adverbs, are polymorphemic. They include the temporal and ordinal adverbials. The temporal adverbials are composed of temporal nouns and temporal noun compounds. The ordinal adverbials are forms derived from numerals. Adverbials are included in this discussion because they occur in some of the same positions as adverbs and have functions similar to temporal adverbs.

4.1.1 Adverb formation

There is strong evidence in Moskona that adverbs have been grammaticalized from verbs. The grammaticalization process occurs as the second verb in a serial verb construction undergoes a change in its word class through loss of the root-initial non-high vowel. (Root-initial non-high vowels are a major morphophonological characteristic of verbs (cf. §3.2). The resulting (adverb) form has a consonant-initial root which is not /m/, a morphological characteristic of the minor word classes. In the serial verb construction in (1), the second verb *okog* 'precede' has become the adverb *kog* 'ahead' in (2).

(1)   *Dif di-ecira   di-okog.*
       I   1SG-walk   1SG-precede
       'I walked [and] preceded (them).'   [D]

(2)   *Dif di-ecira   kog.*
       I   1SG-walk   ahead
       'I walked ahead.'   [D]

A number of adverb forms and corresponding verb forms exist concurrently. The following list illustrates a few of these.

Verb		**Adverb**	
okog	'precede'	*kog*	'ahead'
okoska	'be diligent'	*koska*	'well'
odokun	'accompany'	*dokun*	'additional(ly)'
oturur	'to connect'	*turur*	'connected(ly)'
orocinin	'go to limit'	*rocinin*	'limited'
orohroh	'caused to sink (into)'	*rohroh*	'mixed in'

The adverbs and adverbials will be discussed with regards to their syntactic position: first verb-phrase adverbs, followed by clause-final adverbs. Then, temporal adverbials will be introduced, followed by verbal adjuncts.

4.1.2 Adverb categories

Adverbs may be categorized by the scope of their effect. Those adverbs whose scope is the verb alone occur post-verbally, that is, inside the clause core or verb phrase (cf. Binnick 1991:303); those whose scope is the entire clause occur clause-finally. In addition, the clause-final adverbs may be grouped by their position: either preceding the negative adverb or following the negative adverb. Only one adverb whose scope is an entire sentence occurs in clause-initial position.

4.1.2.1 Verb-phrase adverbs

The semantic scope of the verb-phrase adverb is the narrowest. All verb-phrase adverbs, as members of the verb phrase, immediately follow the verb, allowing only the object argument and its modifiers as intervening material, as the verb and its object form a unit. Peripheral arguments occur following verb-phrase adverbs. This supports Dryer's (1988:99) proposition that semantic units tend to occur contiguously. Verb-phrase adverbs may be subcategorized according to semantic function, as manner, locative, epistemic, focus and temporal adverbs.

4.1.2.1.1 Manner adverbs

Given the origin of manner adverbs, it is not surprising that they occur immediately following the verb. Manner adverbs modify the meaning of the verb and answer the question, "how?" with regards to the verb. Some adverbs, such as *dudu* 'incrementally' or *rokrok* 'expectantly', are lexically reduplicated forms, that is, their single forms are no longer in use. A few manner adverbs are listed below.

dakin	'vigorously'	*rokrok*	'expectantly'
deci	'slowly'	*rud*	'ultimately'
dekikir	'anticipatingly'	*ses*	'mistakenly'
dudu	'incrementally'	*sohoha*	'unintentionally'
huna	'camoflaged'	*somus*	'back (to original state/location)'
jena	'precisely'	*terir*	'exactly'
jijema	'concealed'	*togtog*	'different(ly)'
koska	'well'	*tomrer*	'exposedly'
nesa	'quickly'	*tomror*	'intently'
rir	'skirting perimeter'	*turur*	'connected(ly)'

Manner adverbs typically occur adjacent to the intransitive verb, but precede any prepositional phrase which is not included in the clause core, such as *tomrer* 'exposedly' follows the intransitive verb *ohsa* 'emerge' in (3).

(3) *Mogosga, eri i-ohsa **tomrer** fen mow (ew)es.*
    earthworms they.PL 3PL-emerge exposedly from land cavity
    'The earthworms, they came out in the open from holes in the ground.' [D]

Manner adverbs immediately follow the object of a transitive verb, such as *dakin* 'vigorously' follows *arogá* '(traditional) song' the object of *of* 'sing' in (4), but manner adverbs precede a peripheral argument, such as *somus* 'back' in (5) precedes the indirect object *ofa* 's/he', introduced by *gug* 'to'.

(4)   *Ofa   of   arogá   **dakin***.
       s/he   sing   song   vigorously
       'He sings the song vigorously.'   [D]

(5)   *Dif di-edena   miyefen ofuy   **somus** gug   ofa*.
       I   1SG-exchange money   sm.rd   back   to   s/he
       'I gave him the change in coins.' (small round money = coin)   [D]

4.1.2.1.2 Locative adverbs

Locative adverbs, along with the spatial deictics (§5.2), are locative words which answer the question, "where?". Although most locative adverbs have a single function, a few may be used in other ways. The locative adverbs are:

gujga	'beneath'
hadefa	'(some)where'
rewrew	'along the way'
rohog	'behind' / 'place departed from'
tok	'specific location' or 'spot'
toktoga	'respect(ive) place(s)'
teraw	'above'
tesi	'below'

Locative adverbs occur preceding those prepositional phrases which function as peripheral arguments, such as the locative adverb *teraw* 'above' precedes the locative phrase *jig miy odog* in (6) or the locative adverb *rohog* 'place departed from' precedes the prepositional phrase *jig erin mod miy* in (7).

(6)   *Kawar-miy   ewer   **teraw**   jig   miy   odog*.
       vehicle-water   pass   above   LOC   water   belly
       'The ship passes above on the water's suface.'   [D]

(7)   *Eri   no-ma-i   i-eker   **rohog**   jig   erin   mod   miy*.
       s/he   DNR-far-GIV   3PL-sit   place.departed   LOC   3PLPOS   house   water
       'She stayed behind at the ground house.'
       (water house = house on ground)   [T14]

A few locative adverbs may follow a locative prepositional phrase when the verb, like *eker* 'sit', meaning 'remain' or 'reside', requires a location, such as the locative adverb *rewrew* 'along the way' follows the locative phrase *jig moroj* in (8) or the locative adverb *teraw* 'above' follows the phrase *jig merga esta* in (9).

(8)   *Ofa   eker   jig   moroj   **rewrew**=mej.*
       s/he   sit   LOC   path   along.the.way=remote
       'He remained on the path along the way there.'   [D]

(9)   *(ofa)   eker   jig   merga   está   **teraw**.*
       s/he   sit   LOC wood   fork   above
       'she resided in the fork of the tree above.'   [T10]

A locative adverb, such as *toktoga* 'respective place(s)' in (10), may follow the object of a transitive verb, but may also be governed by the generic preposition *jig* 'LOC', as in (11).

(10)   *ofa egeja   dokun   ogow ofoga   **toktog(a)***
        s/he slit.open   and   chop flesh   respect.place
        'he slit (her) open and chopped up her flesh [to] the respective places.' [T7]

(11)   *Fanin efi-etka   erá   er-ebr(a)-i-ma   jig   **toktog(a)**.*
        bottle sharp-split   THM   CAUS-spread.over-?-far   LOC   respect.place
        'The sharp bottle [splinters] were scattered everywhere.'   [D]

The locative adverbs *teraw* 'above' and *tesi* 'below', in addition to serving as adverbs, may be the complement of the generic preposition *jig,* as is *teraw* in (12), and may themselves function as prepositions (cf. §7.2.13).

(12)   *Ofa osok   éysaha jig   **teraw**   i-da-eyj(a)*
        s/he climb.up   reach   LOC   above   VIS-up-THITHER
        'She climbed up [and] arrived at above up there.'   [T23]

4.1.2.1.3 Epistemic adverbs

Epistemic adverbs are verb-phrase adverbs which indicate the degree of truth in the clause. They give the speaker's evaluation as to the truth or factuality of a state or event (Givón 1984:79). The epistemic adverbs are:

> *decirma*   'definite(ly)'
> *decir*   'real(ly)' or 'correct(ly)'

The adverb *decirma* is possibly composed of the adverb *decir* 'correct' plus the distal enclitic *–ma* 'far', but has taken on the meaning 'definitely'. Epistemic adverbs occur immediately following the verb in an intransitive clause, such as *decir* 'correct(ly)' extended to mean 'really' in (13), or immediately following an object in a transitive clause, such as *decirma* 'definitely' in (14). In a non-verbal clause, they may modify a nominal predicate, such as *decirma* modifies the proper noun *Yahyah* in (15), or *decir*

modifies the common noun *miyefen* 'money' (16). However, they may not directly modify a noun within a noun phrase, but rather must occur in a relative clause, as does *decir* in (17).

(13)   *Dif   di-eskijig   **decir***
        I   1SG-agree   correct
        'I really agreed'   [D]

(14)   *Ofa   oduy   ohta   dompet   **decir**.*
        s/he   front   suck   wallet   correct
        'He really forgot his wallet.' (front suck = forget)   [D]

(15)   *No-ma-i   Yahyah   **decirma**.*
        DNR-far-GIV   Yahyah   definitely
        'That is Yahyah definitely.'   [TT]

(16)   *No-kef   miyefen   **decir**   éra.*
        DNR-here   money   correct   NEG
        'This isn't real money.'   [D]

(17)   *Mar   noga   **decir**   erá,   dif   di-en-og   jig   srad-efi   no-kef.*
        thing   REL   correct   THM   I   1SG-DUR-write   LOC document-leaf   DNR-here
        'The thing that is correct, I am writing in this letter.'   [TT]

The epistemic modal adverb *smen* 'maybe' or 'perhaps', as in (18), differs from the other epistemic adverbs in that it has been observed to occur only in the frame position. It may be related to the Hatam modal adverb *mmo* 'perhaps', which occurs clause-initially (Reesink 1999:72). The adverb *smen* is quite possibly a collapsed phrase whose components are (*e)c* 'become' and (*e)m-en* (IRR-do) 'will do' or a loan word. It is also unique phonologically, as there are only three other words with a CCVC syllable structure occurring in the language, two of which are adapted loan words (See footnote §2.2.1).

(18)   ***Smen,*** *mar   erg-em   er-efca   ofa.*
        perhaps   thing   NUM:1-CST   CAUS-delay   s/he
        "Perhaps, something delayed him.'   [T14]

4.1.2.1.4 Focus adverbs

Semantically, focus adverbs draw attention to the item they follow and can occur in more than just one position in the clause. Their syntactic position depends upon the scope of their application. If modifying nominal elements, they immediately follow the noun phrase; if modifying a predicate, they occur immediately following the verb (and its object), but always preceding clause-final adverbs. The focus adverbs parallel the functions of adverbs with similar meanings in other languages of the Bird's Head, such as

Meyah (Gravelle 2004:157 and p.c.), Hatam (Reesink 1999:73) and Sougb (Reesink 2002b:236), in that they form a distinct group of adverbs modifying both predicates and nouns. The focus adverbs are:

gijga	'only' (also 'just' or 'merely')
tin	'also' (also 'even')
ruruy	'unrestricted' (with nouns as 'any')
romreg	'entirely' (modifying nouns as 'all')
sis	'past' (also 'previously')
tas	'again' (also 'more' and 'else')
toga	'different(ly)' (contrasting respectively)

The focus adverb *gijga* 'only' or 'just' also expresses the concept of 'merely' or 'little more than what is specified' and may modify a noun, such as *eri-orna* 'men' in (19), as well as a predicate, such as *i-ahamow tum* in (20).

(19)   *Eri-orna*   **gijga** *erá*   *noga* *i-est(a)*   *mok.*
        they.PL-man only   THM   REL   3PL-suck   pandanus
        'Only (adult) men are [the ones] who eat pandanus.'   [T4]

(20)   *Enia*   *i-ahamow tum*   **gijga**.
        some.other   3PL-vomit on(to)   only
        'Some others just vomited.'   [T9]

The focus adverb *ruruy* 'unrestricted(ly)' may modify a verb, such as the transitive verb *osot* '(re)count' in (21), or a noun, such as *isnok* 'people' in (22).

(21)   *Ofa*   *osot*   *i-erg-em*   *i-efena*   **ruruy**.
        s/he   count   3PL-NUM:1-CST   3PL-character   unrestrict.
        'He recounted unrestrictedly (gossiped) about others' characters.'   [D]

(22)   *I-osnok*   **ruruy**   *i-em-osra*   *jig*   *lapangan*[27] *edak.*
        1PL-person   unrestrict. 3PL-IRR-enter   LOC   field   NEG.DEON
        '(Just) anyone shouldn't enter the (playing) field.'   [D]

The focus adverb *romreg* 'all' or 'entirely' modifies the intransitive verb *eyma* 'dry up' in (23) and the noun *osnok* 'person' in (24). It may even stand in the position of the head noun, functioning as the subject argument, as in (25).

(23)   *Kus*   *noga maharga erá,*   *miy*   *noga etma eyma*   **romreg**.
        short.span   REL   dry.season THM   water   REL   arm   dry.up   all
        '[During] the dry season, rivers that are tributaries dry up entirely.'   [D]

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[27] The word *lapangan* is a Malay word.

(24)   *ergog   y-oduk   i-osnok   **romreg** ni i-okog   jig*
        they.DU DU-order 3PL-person all   for 3PL-precede LOC
        'they ordered everyone to go ahead'   [T7]

(25)   *Erogá,   **romreg** i-et   mar-mosorn(a)   m-ejer-im(a).*
        hence   all   3PL-eat thing-hunger   RECIP-be.with
        'So (then), all ate the food together.'   [T24]

The focus adverb *tas* 'again' modifies the intransitive verb *eska* 'sprinkle' in (26) and the noun *mona* 'day' in (27).

(26)   *Bua   bi-or   mefsa ofor   bi-er-eska   **tas,** roga.*
        you.SG   2SG-hold salt   dehydrated 2SG-CAUS-sprinkle again first
        'Sprinkle again with the salt, please.'   [D]

(27)   *Ni mona   **tas**-men,   ofa   orusohta...*
        on day   again-RED s/he   think
        'At a later time, he thought...'   [T27]

The adverb *toga* 'different(ly)' or 'dissimilar to' in (28) modifies the transitive verb *or* 'build' and in (29) modifies the noun *(ow)oksa* 'subunit'.

(28)   *Ergog y-em-ah jig mod efeyu   noga y-or   **toga**   fen*
        they.DU DU-IRR-lie LOC house immature REL   DU-build different   from

        mod   noga   orokec.
        house REL   large
        'They slept in the little house which they built differently than the house which was big.'   [T23]

(29)   *Mif   mi-esah   mos   no-ma-i   jig   miy   (ow)oksa **toga**.*
        we.PL   1PL-put   fish   DNR-far-GIV   LOC   water sub.unit   different
        'We put those fish in a different pond.'   [T29]

Reduplication of *toga* 'different' to *tog-toga* 'different kinds' or 'varied', as in (30), indicates a kind of intensification rather than a signal of the plurality of the modified noun.

(30)   *Mem   erge-erg-em   ok   ofuy   noga   **tog-toga**.*
        bird   NUM:I-RED-CST bear   egg   REL   different-RED
        'Various birds lay different kinds of eggs.'   [D]

4.1.2.1.5 Temporal adverbs

Temporal adverbs can be categorized semantically into three groups: frequency adverbs, duration adverbs and time interval adverbs.

Frequency temporal adverbs

Frequency adverbs refer to the number of times an event occurred. With the exception of *raok* 'usually', all of these adverbs are lexically reduplicated forms, having single forms which are no longer used.

> *raok ~ rok*   'usually'
> *titir*   'constantly'
> *regreg*   'habitually'
> *tutum*   'often'

The frequency adverb *tutum* occurs post-verbally, following the object noun phrase *meni nomi* 'the bananas' in the initial clause of the sentence in (31).

(31)   *Dif di-eyja di-ek   meni   no-ma-i   **tutum**, erogá em-ofom.*
          I   1SG-go 1SG-see banana DNR-far-GIV   often   so   IRR-ripe
          'I go [and] look at the bananas often, so [later] they will be ripe.'   [D]

Duration temporal adverbs

Duration adverbs indicate the duration of the described event, specifying the length of time. The duration adverbs *guguy* 'all at once' and *rogrog* 'immediately' are lexically reduplicated forms. The duration adverb *rahasis* 'all day long' or 'the whole day' is possibly a fused compound composed of an earlier word for 'day', as seen by comparison to forms such as Meyah *rahah* 'morning' and Hatam *lah* 'day', plus the verb *esis* 'exclude'. The duration temporal adverbs are:

> *rogrog*   'immediately'
> *rahu*   'long time'
> *siska*   'temporarily'
> *rahasis*   'all day long'
> *guguy*   'all at once'
> *hah*   'shortly'

Duration adverbs follow the verb and its object, but precede a clause-final adverb, such as *guguy* 'all at once' precedes the clause-final adverb *roga* 'first' in (32).

(32)   *Dif di-ec   mar **guguy**   roga, erogá di-owha   jig   mod.*
I   1SG-buy thing all.at.once first   hence 1SG-leave LOC   house
'After I bought the things all at once, so (then) I left for home.'   [D]

The temporal durative adverb *rogrog* 'immediately' in (33) follows the prepositional phrase *jig maekena* 'in the garden', which modifies the direct object and the spatial deictic *idi* 'up there'.

(33)   *Bua   bi-ok   membef jig maeken(a)   i-da-i   **rogrog**.*
you.SG   2SG-snap.off spinach LOC garden   VIS-up-GIV   immediately
'Pick the spinach in the garden up there immediately.'   [T29]

Time-interval temporal adverbs

The time interval adverbs describe the interval of time in which an action is asserted to have taken place. They are:

ebi   'recently'
kog   'ahead'
sokomow[28]   '(in/at) beginning'

As verb-phrase adverbs, the time interval adverbs *sokomow* 'at first' (34) and *kog* 'ahead' (35) occur post-verbally following the object of the verb and preceding a clause-final adverb, such as *edak* 'NEG.DEON' in (35).

(34)   *Ofa   ojok   dif   **sokomow**.*
s/he   hit   I   beginning.
'He hit me first.'   [D]

(35)   *Bua   m-et   mar **kog**   edak.*
you.SG   IRR-eat   thing ahead   NEG.DEON
'Don't eat ahead (of others).'   [D]

4.1.2.2 Clause-final adverbs

Clause-final adverbs form three groups on the basis of syntactic position with relation to the negative adverb. They are the pre-negative adverbs, the negative adverbs and the post-negative adverbs.

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[28] The adverb *soko-mow* is a fused form composed of the verb *osok* 'climb up' or 'ascend', extended to mean 'begin' and the alienable noun *mow* 'land' with the extended meaning 'place'. Alternate forms of this adverb are *soko-roga* 'first time' and *serges-roga* 'once first'.

4.1.2.2.1 Pre-negative clause-final adverbs

The three clause-final adverbs which precede the negative adverb express phasal aspect. They are:

jog	'already'	(completive aspect)
roga	'first'or 'before'	(incompletive aspect)
ros	'still'	(durative aspect)

The clause-final adverb *jog* 'already', which follows the verb-phrase temporal adverb *sis* 'past', but precedes the negative adverb *éra* 'NEG' in (36), conveys the notion 'not yet', but in a different sense than the negative adverb *néesa* 'not yet', which negates possibilities.

(36)   *Dif di-em-odu   mar   no-ma-i   sis   **jog**   éra.*
       I   1SG-IRR-tell   thing   DNR-far-GIV   past   already   NEG
       'I hadn't told that already much earlier.'   [D]

The occurrence of a clause-final adverb (or sentence-final aspect morpheme), translatable as 'already', is a feature shared by Moskona and many other languages in the Bird's Head, such as Meyah, Sougb, Hatam, Moi, Tehit, Maybrat, Abun and Mpur (Reesink 1998:617).

4.1.2.2.2 Negative adverbs

There are three negative adverbs, whose scope is the whole clause. They occur in clause-final position, always following any pre-negative adverbs and preceding any post-negative adverbs. A distinction is made between declarative and imperative negative adverbs, as *éra* 'NEG' negates declarative clauses and *edak* 'NEG.DEON' negates imperative clauses. The negator *éra* has the allomorph *gurá*, which occurs when the negative adverb *éra* functions as a disjunctive coordinator (§11.3.6), averting possible ambiguity. The clause-final position of the negator is an areal and typological feature of Bird's Head languages (Reesink 1998:617) and has a widespread distribution throughout a number of languages in Papua and the Moluccas (Reesink 2002c:245, Klamer 2004:243). This clause-final position is uncommon in the world's languages (Dryer 1988:102), as SVO languages nearly always place the negator preverbally (Dryer 1988:99). The negative adverbs are:

éra ~ gurá	'NEG'
edak	'NEG.DEON'
néesa	'not yet'

The clause-final position is illustrated in (37) as the negative adverb *néesa* 'not yet', a negation of potential, follows the verb *ebah* 'live'; in (38) the negative adverb *éra* 'NEG' occurs at the end of the initial clause in the sentence; in (39) the negative adverb *edak* follows the clause-final adverb *roga* 'first'.

(37)   *Kus   noga Moskona sis, i-osnok   meren   i-em-ebah   néesa....*
         short.span REL Moskona past 3PL-person lake   3PL-IRR-live not.yet
         '[During] earlier times in the Moskona area, before there were many people...'
                                                                          [T19]

(38)   *Mif   mi-em-osiom   rot bar no-ma-i   éra,   esha   efena okwef fen.*
         we.PL 1PL-IRR-play   with ball DNR-far-GIV   NEG   from   air   leak from
         'We aren't playing with that ball because the air leaked out.'   [D]

(39)   *Bua   bi-em-osra   jig   mod roga edak*
         you.SG 2SG-IRR-enter LOC   house first NEG.DEON
         'You shouldn't enter the house first'   [T20]

The independent negative utterance *ogurá* 'no' occurs extra-clausally, preceding (40) or following (41) the main clause.

(40)   **Ogurá**, *bua   erá   noga bi-eset   ofa.*
         no   you.SG   THM   REL   2SG-prick s/he
         'No, you are [the one] who pricked him.'   [D]

(41)   *Menejog, ogurá.*
         tomorrow no
         'Tomorrow, no.'   [T25]

The negative adverbs in Moskona bear a great deal of morphological similarity to the negative adverbs in several languages in the East Bird's Head area. The Moskona negative adverb *éra* 'NEG' bears strong morphological similarity to the Sougb negative adverb *(e)ro* 'not' (Reesink 2002b:237) and the negative adverb *bar* 'not' in the (almost extinct) language Mansim (Reesink 2002a:298). The Moskona variant *gurá* 'NEG' and the independent negative utterance *ogurá* 'no' have a great degree of similiarity to the Meyah negative adverb *gurú* 'not' (Gravelle 2004:156). The negative adverb *néesa* 'not yet' also is morphologically similar to the Meyah negative adverb *enesi* 'not yet' (Gravelle 2004:156).

4.1.2.2.3 Post-negative clause-final adverbs

The post-negative clause-final adverbs express both aspectual and modal notions. The adverb *deke* expresses permissive mood, the adverb *eke* expresses inchoative aspect, the adverb *eri* expresses uncertainty mode, the adverb *jef* expresses deontic mode and the adverb *nom* expresses both veracity (strong assertion) and ability. The post-negative clause-final adverbs are:

> *deke*   'may'
> *eke*   'almost' / 'not quite'
> *se ~ ris* 'certainly'
> *eri*   'probably'
> *jef*   'DEON'
> *nom*   'VER'

Post-negative clause-final adverbs occur at the end of simple clauses, but almost never occur sentence-medially, (with the exception of *jef*). That is, they do not occur at the end of the first clause of a complex sentence. When occurring sentence-finally, the scope of a post-negative clause-final adverb is the clause which immediately precedes it, as in the conjoined clause in (42), the scope of the clause-final adverb *eri* 'might' or 'possibly' extends only to the immediately preceding clause. Or in the conjoined clause in (43) the clause-final adverb *jef* 'DEON' has as its scope only the second clause of the sentence.

(42)   *Dif di-et   morgik, erogá di-en-orkoh   rot=kef   eri.*
        I   1SG-eat matoa   hence 1SG-DUR-choke about=here   probably
        'I ate the matoa, so I'm probably choking because of it now.'   [D]

(43)   *Bua   bi-edesk(a) mar   ahacum, edá bi-orot   dif   jef.*
        you.SG   2SG-release thing inactive then 2SG-go.with I   DEON
        'Release it [so] it is inactive (i.e. let it sit), then (you should) go with me.'
                                                                              [D]

The modal adverb *se* 'certainly' only occurs with verbs which have attached the modal prefix *em-* 'IRR', as in (44). The modal adverb *se* is morphologically similar to the Meyah adverb *si* 'STATUS' (Gravelle 2004:266) and the Sougb sentence-final morpheme *–s* 'CERT' (Reesink 2002b:200).

(44)   *mar   noga oyf-omof erg-em   em-éysaha   kereng(a) bua   se.*
        thing REL good-RED NUM:1-CST IRR-reach   upon   you.SG certainly
        'another thing which is good will certainly happen to you.'   [T7]

The clause-final adverb *nom* 'VER' has two functions: abilitative mode, translatable as 'can' or 'able to', as in (45), and status or epistemic mode, which strongly asserts the veracity of the statement, as in (46), translatable as 'truly'.

(45)   *Mar   no-ma-i   erá,   mif   mi-et   **nom***
       thing   DNR-far-GIV   THM   we.PL   1PL-eat   VER
       'These things, we can eat'   [T7]

(46)   *Ayok,   dif   di-oduy   efef   rot   bua   **nom***!
       mother   I   1SG-front   ache   about   you   VER
       'Mother, I really love you!' (front ache = love)   [T7]

The clause-final adverb *eke* 'almost' or 'not quite', having a phasal connotation, occurs
following the clause-final adverb *jog* 'already', as in (47) and the negative adverb *néesa*
'not yet', as in (48).

(47)   *Miy   éysaha   jig   di-oku   jog   **eke**.*
       water   reach   LOC   1SG-knee   already   almost
       'The water is already almost up to my knees.'   [T23]

(48)   *Marsa   ofog   no-kef   em-otka   néesa   **eke***
       game   meat   DNR-here   IRR-tasty   not.yet   almost
       'This game meat is not quite tasty yet'   [D]

4.1.2.3 Intensification of adverbs

Adverbs may be intensified through two means: morphologically through reduplication
and syntactically by the indefinite quantifier verbs *etew* 'much' (50) and *eseter* 'much
more' (49).

(49)   *Efer   no-ma-i,   ofa   ofof   **dakin**   eseter.*
       child   DNR-far-GIV   s/he   run   vigorously   much.more
       'The kid, he runs really energetically.'   [D]

(50)   *Orna   noga   eker   **sis**   etew   jog   erá*
       man   REL   sit   past   much   already   THM
       'The man who lived much earlier'   [T13]

Reduplication in a few adverbs, such as *deci* 'slowly' in (51), *ebi* 'recently' in (52) and
nesa 'quickly' in (53) denote an increase in intensity or degree.

(51)   *Orna   ekena   no-ma-i   ecira   **deci-ci**.*
       man   red   DNR-far-GIV   walk   slowly-RED
       'The old man walks very slowly.' (red man = elderly man)   [D]

(52)   *Ofa   owha **eybi-bi**=kef.*
        s/he   leave recently-RED=here
        'He left quite recently.'   [T14]

(53)   *Ejena   ofra   mitos ofonga no-ma-i   **nes-is**.*
        woman lift   pot   tendril DNR-far-GIV   quickly-RED
        'The woman lifted the pot handle very quickly,'   [T29]

Other adverbs, such as *dudu* 'surreptitiously', *regreg* 'habitually', *rogrog* 'immediately', *tektek* 'incrementally', *tusus* 'to-and-fro' and *tutum* 'often' are lexically reduplicated forms, that is, they have as a base form a reduplicated root. The unreduplicated form is no longer used as such.

4.1.3 Adverbials

There are two groups of words which have adverbial functions, the temporal adverbials, generally members of the alienable noun class, and the ordinal adverbials, which are derived from numerals.

4.1.3.1 Temporal adverbials

Temporal adverbials are nominals, such as nouns or noun compounds, which function adverbially. They are distinguished from adverbs, in that they may be modified by a determiner. Temporal adverbials are not introduced by a preposition, distinguishing them from temporal peripheral arguments, which are obligatorily introduced by a preposition.

Temporal adverbials may occur immediately following the object of a transitive verb, such as *meregah* 'on the way' immediately follows *mif* 'we.PL' in (54), or immediately following a peripheral argument, such as *tisef* follows *mes* in (55), but always occurs preceding a clause-final adverb, such as *néeki* 'yesterday' precedes *éra* 'NEG' and *ecki* 'day before yesterday' precedes *jog* 'already' in (56).

(54)   *mot   em-ed   mif   **meregah***
        night IRR-strike we.PL   on.the.way
        'night will strike (overtake) us on the way'   [D]

(55)   *Bua   bi-em-ecira rot   mes   **tisef** edak,   esha Ari   ekenga.*
        you.SG 2SG-IRR-walk about dog   today NEG.DEON from Sunday restricted
        'You shouldn't go walking with your dogs today, because Sunday is a restricted
        day.'   [D]

(56)   *Ofa   em-éysaha   **néeki**   éra,   tiná   **ecki**   *jog.*
        s/he   IRR-reach   yesterday   NEG   but   day.before.yesterday   already
        'He didn't arrive yesterday, but the day before yesterday.'   [T23]

Temporal adverbials have a wider scope of effect with greater distributional freedom, and as such may occur in the temporal frame, as does *motah* 'morning' in (57).

(57)   **Motah**=*kef,*   *mif*   *mi-en*   *keradi.*
        morning=here   we.PL   1PL-do   work
        'This morning, we work.'   [D]

The temporal adverbial *meregah* 'on the way' or 'part way' occurs post-verbally in (58), but also may be governed by the generic preposition *jig* 'LOC', as in (59).

(58)   *ergog   y-osturur   tas,   edá   y-éysaha   **meregah..***
        they.DU   DU-continue.on   again   then   DU-reach   on.the.way
        'they (two) continued on again, then reaching part way..'   [T7]

(59)   *ofa   ok-a   éysaha   **jig**   **meregah**...*
        s/he   flee-PGE   reach   LOC   on.the.way
        'he fled [and] on the way....'   [T5]

The temporal adverbial *kus* 'short span (of time)' may not occur alone, but functions as the head of a temporal phrase. It may be modified by nominals, such as *merenha* 'storm' in (60), nominalized temporal adverbs, such as *no-ecki* (DNR-day.before.yesterday) in (61), or frequently by demonstrative pronouns, such as *nokef* 'this' in (62), but may not be quantified or qualified by an adjectival verb, nor may it be possessed.

(60)   *Merga   no-ma-i   esim   **kus**   **merenha**   néeki.*
        wood   DNR-far-GIV   fall.over   short.span   windstorm   yesterday
        'The tree fell over [during] the storm yesterday.'   [D]

(61)   **Dif** *di-en   fen   dadin   mowos   **kus**   **no-ecki**.*
        I   1SG-come   from   1SGPOS   village   short.span   DNR-day.before.yesterday
        'I came from my village [during] the day before yesterday.'   [D]

(62)   *erogá   **kus**   **no-kef,**   mif   mi-en-ot   jig   miyes*
        hence   short.span   DNR-here   we.PL   1PL-DUR-stand   LOC   clothes
        'so at present, we wear clothes.' (stand in clothes = wear clothes)   [T13]

The time interval adverbials, like the time interval adverbs, describe the interval of time in which an action is asserted to have taken place. These temporal nouns may refer to

parts or points in a 24 hour period, as well as spans of time. The following lists are not comprehensive.

Time interval adverbials referring to parts or points in a 24 hour period:

motah	'morning'
mot	'night'
motgus	'middle of the night'
mona	'day'
men(a) efenen	'pre-dawn'
men(a) esif	'daytime'
men(a) erir	'dawn'
maw osha	'evening' or 'sundown'

Although the terms *mona* 'day', *motah* 'morning' and *mot* 'night' are monomorphemic, all other terms referring to parts of a 24 hour period involve at least two morphemes. The term *motgus* 'middle of the night' is possibly composed of *mot* 'night' and *kus* 'short span (time)'. Most other terms are phrases involving *mona* 'day' or its lexical variant *mena*, such as *men(a) eyrir* (day vibrates) 'dawn' or *men(a) esif* (day open) 'daytime'. The noun *maw* 'sun' is also the head of temporal phrases, such as *maw osha* (sun (be) slackened) 'sundown', or *maw tahaysa* (sun middle) 'mid-day'.

Time interval adverbials referring to days are:

menejog	'tomorrow' or 'next day'
néeki	'yesterday'
tisef	'today'

Adverbials referring to longer intervals of time:

ari	'week'
merahaysa	'year' or 'Christmas(es)'
mona	'day' or 'indeterminate span of time'
meregah	'on the way' or 'midway'

The demonstrative pronouns *(no)kef* 'this' and *(no)ma* 'that' also function as temporal adverbials, meaning 'now' and 'then' (See §5.4).

4.1.3.2 Ordinal adverbials

Moskona no longer has an opposition between cardinal and ordinal numbers. However, the ordinal prefix *ocu-* 'ORD' is found in the temporal ordinal adverbials, the multiplicative numeral adverbials and the temporal frequency adverbials, as well as in a

few inalienable nouns, such as *oycura* 'youngest child' [ojt͡ʃúɾa] and *ocu(o)kog* 'firstborn' (ORD-precede) [ot͡ʃúkog]. The ordinal prefix *ocu-* bears close phonological resemblence to the Meyah prefix *ju-* used in ordinators for first, second and third (Gravelle 2004:142).

4.1.3.2.1 Temporal ordinal adverbials

A remnant of the ordinal prefix exists in adverbials used for temporal reference, such as the fused forms *ec(u)-ak-ejog* (ORD-two-next) 'day after tomorrow' [ét͡ʃkɛd͡ʒog] and *ec(u)-(a)k-i* (ORD-two-GIV) 'day before yesterday' in which the prefix mid back vowel /o/ has been replaced with a front mid vowel /e/. The temporal adverbials *men-ejog* (day-next) 'tomorrow' and *néeki* 'yesterday', however, do not evidence the presence of the ordinal prefix. The temporal ordinal adverbials are composed of a fragment of the ordinal prefix and a fragment of a numeral, which at present have become fused, such that only parts of their original morphemic composition remain. The forms and meanings of a few morphemes, such as the final morpheme *-na* in *ocuna* (seventh day), are not retrievable at all.

These adverbials are used to tally days, denoting the number of days distant from the speech event. The tally of days future is expressed contrastively to that of days past. However, some of the forms for days past have begun to merge with terms for days future and are no longer distinct, such as the term *ocuna* 'seventh day from now' or 'four days ago'. For designating future days, the day of the speech event is included in the tally, unlike English which begins the tally on the day following the speech event. Table 4.1 summarizes the current forms.

Several of the temporal adverbials appear to have undergone the diachronic process whereby verbs lose their root-initial vowel to become adverbs (§4.1.1). Forms such as *(o)cu-(o)m-jog* becoming *cum-jog* 'third day ago' and *(o)cu-grah* becoming *cugrah* 'fifth day ago' evidence this process.

Table 4.1 Temporal ordinal adverbials

Future

temporal adverb(ial)	morphemes	phonetic realization	free translation
mona-ejog	day-next	[ménɛd͡ʒóg]	'second day hence'
ec(u)-ak-ejog	ORD-two-next	[ɛt͡ʃkɛd͡ʒóg]	'third day hence'
ocu-om-a	ORD-three-PGE	[ot͡ʃúma]	'fourth day hence'
ocu-(tah)g(ur)-a	ORD-four-PGE	[ot͡ʃúga]	'fifth day hence'
ocu-(ciy)ja	ORD-five	[ot͡ʃúd͡ʒa]	'sixth day hence'
ocu-na	ORD-?	[ot͡ʃúna]	'seventh day hence'

Past

no-(a)k-i	DNR-two-GIV	[nɛ́ɛki]	'yesterday'
oc(u)-(a)k-i	ORD-two-GIV	[ɛt͡ʃkí]	'second day ago'
(o)cu-(o)m-jog	ORD-three-already	[t͡ʃúmd͡ʒog]	'third day ago'
ocu-na ~ ecu-na	ORD-?	[ot͡ʃúna]	'fourth day ago'
(o)cu-grah	ORD-?	[ot͡ʃugɾáx]	'fifth day ago'

4.1.3.2.2 Multiplicative numeral adverbials

The multiplicative numeral adverbials indicate frequency of occurrence (i.e. how many times). They are composed of the ordinator prefix *ocu-* 'ORD', a fragment of the generic numeral classifier prefix *erg-*, plus a numeral root *–es* 'one', *-ak* 'two' or *–om* 'three'. Multiplicative numeral adverbials, such as *ojugak* 'twice' in (63), occur in the same clausal position as verb-phrase adverbs.

(63)   *Mem-kokar em-oys(a)   mar   **oju-(er)g-ak**   néesa.*
bird-crow   IRR-call.out thing   ORD-NUM:1-two not.yet
'The chicken didn't crow twice yet.'   [TT]

There are two forms of the ordinal prefix *ocu-* existing concurrently and expressed in two distinct morphological shapes for the multiplicative numeral adverbials. In the first variant, the affricate /c/ [t͡ʃ] of the ordinal morpheme *ocu-* 'ORD' has been voiced to yield the variant *oju-* [od͡ʒu]. With this variant, the initial two segments /er/ of the generic numeral classifier prefix *erg-* 'NUM:1' have been elided.

oju-(er)g-es	(ORD-NUM:1-one)	'once'	[od͡ʒugɛ́s]
oju-(er)g-ak	(ORD-NUM:1-two)	'twice'	[od͡ʒugák]
oju-(er)g-om	(ORD-NUM:1-three)	'thrice'	[od͡ʒugóm]

In the second variant, the vowels of the ordinal prefix have been elided, leaving only the affricate *c-*.

c-erg-es	(ORD-NUM:1-one)	'once'	[t͡ʃɛrgés]
c-erg-ak	(ORD-NUM:1-two)	'twice'	[t͡ʃɛrgák]
c-erg-om	(ORD-NUM:1-three)	'thrice'	[t͡ʃɛrgóm]

Either of the variants may occur post-verbally, such as *cergak* in (64), following any direct object, indirect object and any of their modifiers. The multiplicative numeral adverbial *ojuges* 'once' has a non-numerical meaning, translatable as 'momentarily' or 'later on', and may also occur in an adverbial phrase preceding a conjunction introducing a clause, as in (65).

(64)   *Ofa   em-et   mar   **c-erg-ak**   edak.*
        s/he   IRR-eat   thing   ORD-NUM:1-two   DEON.NEG
        'He shouldn't eat twice.'   [D]

(65)   *Ejena   no-ma-i,   ofa   ormetim;   **oju-(er)g-es**   edá,   ofa*
        woman   DNR-far-GIV   s/he   lose.conscious.   ORD-NUM:1-one   then   s/he

        efena   er-ec-ef   somus.
        spirit   CAUS-press.on-near   back
        'The woman, she lost consciousness; then later, she regained consciousness.'
                                                                      [D]

4.1.3.2.3 Temporal frequency adverbials

The temporal frequency adverbials are composed of the *c-* variant of the ordinal prefix *ocu-* 'ORD', the generic numeral classifier *erg-* 'NUM:1', plus a bound numeral, such as –*es* 'one' in (66a) and (66b), or a bound root, such as -*em* 'CST' in (67a) and (67b), or -*aha* 'QUAN' in (68).

(66)   a.   *c-erg-es-is*   b.   *c-erg-es-mes*
              ORD-NUM:1-one-RED   ORD-NUM:1-one-RED
              'frequently'   'once only'

(67)   a.   *c-erg-em*   b.   *c-erg-erg-em*
              ORD-NUM:1-CST   ORD-NUM:1-RED-CST
              'another time'   'several (other) times'

(68)   *c-erg-aha*
              ORD-NUM:1-QUAN
              'several times'

Temporal frequency adverbials occur in the same position as the temporal adverbs, such as *cergergem* [t͡ʃɛɾgéɾgém] 'several (other) times' in (69) follows the peripheral argument *mohena*.

(69)   *Ofa*   *esir*   *rot*   *i-erg-em*   *erin*   *mohena*   *no-ma-i*
         s/he   fall.down   with   3PL-NUM:1-CST   3PLPOS   wife   DNR-far-GIV

         c-erg-erg-em.
         ORD-NUM:1-CST
         'He committed adultery with those others' wives several times.'   [T29]

4.1.4 Verb adjuncts *kerenga* and *jug*

The spatial preposition *kerenga* 'upon', as in (70), and the adversative non-spatial preposition *jug* 'against', as in (71), with origins in the verbs *ekerenga* 'be upon' and *ocuk* 'block', may function as verbal particles or adjuncts.

(70)   *Miy*   *ofog*   *er-em-efta-ima*   ***kerenga***   *mortoh*   *no-ma-i*.
         water   pointed   CAUS-RECIP-attach.to   upon   island   DNR-far-GIV
         'The waves touched each other upon the island.'   [D]

(71)   *mofuna*   *masha*   *efi*   *ebga*   *somus*   ***jug***   *miy*   *m-erg-em*
         vine   k.o.bamboo   leaf   torn   back   against   water   NR-NUM:1-CST
         'the bamboo leaf vine was torn [so that] it [fell] back against the river's other side.'   [T25]

Their function as adjuncts is distinguished primarily semantically, in that the verb plus adjunct construction forms an idiomatic unit, whose meaning cannot easily be found from the sum of its parts. Some adjunct constructions maintain the same semantic domain as the verb, but shift the focus or add an additional component to the meaning; however, these changes are not predictable. The following list gives a comparison of the verb's primary meaning to the idiomatic meaning produced by the construction.

Verb	Gloss	Adjunct unit	Gloss
esisga	'ask (a question)'	*esisga jug*	'question'/ 'interrogate'
eyeg-ejga	'watch'	*eyeg-ejga jug*	'survey'
okues	'coax'	*okues jug*	'persuade'
of	'close (off)'	*of jug*	'shut up'
ek	'see'	*ek jug*	'examine'/ 'supervise'

Some adjunct constructions change the semantic import of the verb more radically, as the lists below illustrate in comparing the primary meaning of the verb with the idiomatic meaning in the adjunct construction.

Verb	Gloss	Adjunct unit	Gloss
eyja	'go (to)'	*eyj(a) kerenga*	'extend (influence) over'
eker	'sit'	*eker kerenga*	'rest'
éysaha	'reach'	*éysaha kerenga*	'happen upon'/ 'appear to'
omed	'anticipate'	*omed jug*	'on alert for'
en[29]	'do'('say')	*en jug*	'forbid'
emesa	'fear'	*emesa jug*	'repent' or 'regret'
éysaha	'reach'	*éysaha jug*	'preempt'

The verb adjuncts function grammatically to transitivize intransitive verbs, such as the posture verbs *ah* 'lie', *eker* 'sit' and *ot* 'stand', but unlike the Meyah verb adjuncts *keingg* and *joug* (Gravelle 2004:160)*,* the adjuncts in Moskona retain some portion of their lexical content, so that the idiomatic units incorporate to a degree some of the semantic features of the adjuncts, whether they occur with intransitive or transitive verbs. For example, the verb adjunct *jug* incorporates the notion of 'preventing something' when added to the verb *ot* 'stand' in (75).

These verb adjuncts are independent words, that is, they are not phonologically bound to the verbs which they affect. They occur adjacent to the verb they modify, as *jug* immediately follows *esisga* 'question' in (72) and *ot* 'stand' in (75). However, there may also be intervening material, such as the verb-phrase adverb, *tutum* in (73) or the object *mif* in (74).

(72)   *Eri   noga   méesa   **i-esisga jug**   ergog.*
        they.PL REL   enemy   3PL-ask   against they.DU
        'They who were the enemy questioned them.'   [T25]

(73)   *Bua   bi-**ek**   tutum   **jug**   Markus.*
        you.SG 2SG-see   often   against   Marcus
        'You often watch over Marcus.'   [D]

(74)   *miy   mojum   ofog   **edi**   mif   **jug**.*
        water   ocean   pointed push.back   we.PL against
        'the ocean waves overwhelm us' (*miy mojum ofog* = ocean wave)   [T28]

(75)   *Ergog   y-**ot**   **jug**   Isisge*
        they.DU   DU-stand   against   Isisge
        'They (two) guarded Isisge (from leaving).'   [T25]

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[29] The verb *en* in the adjunct construction *en jug* 'forbid' may reflect a borrowing of the Sougb verb *en* 'say' (Reesink 2002b:203).

The verb adjuncts may occur following a verb which is part of a serial verb construction, such as the verb adjunct *jug* in the serial verb construction *of m-en-ima* (close RECIP-come) in (76), retaining the semantic notion of 'obstruction'.

(76) *Orna ekena no-ma-i,   ofon   estak   erá   of   m-en-i(ma)   jug.*
      man red   DNR-far-GIV 3SGPOS butt   THM   close RECIP-do   against
      'The old man, his anus was closed shut.' (red man = elderly man)   [T10]

Verb adjunct constructions may also function as complement-taking predicates, such as *orusohta jug* in (77) or *esisga jug* in (78), takes a complement clause introduced by the complementizer *ohot* 'saying'.

(77) *Dif di-orusohta jug   ohot   [mow=kef erá   oyf-amof   ni*
      I   1SG-think   against saying   land=here THM good-RED   for

      i-or   mod   jig].
      3PL-build house LOC
      'I consider that this place is good to build a house on.'   [D]

(78) *Ergog y-esisga jug   ohot   [ergen mahina erá   y-ewer   jig*
      they.DU DU-ask against saying 3DUPOS husband THM   DU-pass.by LOC

      no-kef=ey?]
      DNR-here=Q
      'They (two) questioned [them] whether their husbands had passed here.' [T10]

Verb adjuncts functioning similarly are also found in three languages adjacent to Moskona. Meyah has the adjuncts *keingg* 'ADV' and *joug* 'ADV' (Gravelle 2004:160), Hatam has the verbal adjuncts *ser* 'keep out' and *kep* 'hold on to' (Reesink 1999:73), and Sougb has *dougwo* 'block/keep out' and *deb(in)* 'hold on to' (Reesink 2002b:237).

4.2 Numerals, classifiers and quantifiers

This section discusses the morphological and distributional properties of numerals, numeral classifiers, sortal noun classifiers and some indefinite quantifiers.

The numerals are a closed class with their own morphology and syntactic structures. Numerals one, two and three are morphologically complex words, being composed of a numeral classifier prefix plus a numeral, which is a bound, form to yield a phonological and morphological unit, the numeral word. The numeral classifiers categorize nouns in terms of shape, size and physical properties. The existence of numeral classifiers in numerals one through three serves as a criterion to distinguish the numerals as a class.

The numeral classifiers occur with two other bound roots: a morpheme signaling contrast and a quantifier root.

A second type of classifier, the sortal noun classifier, restricts the domain of the numeral in terms of the sortal categories, as well as individuates the noun and is integral to the noun-numeral construction.

4.2.1 Cardinal numbers

The Moskona numeral system may be considered a quinary/quindecimal/decimal/vigesimal system with numerals *ciyja* 'five', *setka* 'ten' and *koram* 'fifteen' serving as bases for expressions below twenty and *isnok* 'twenty' as the base for numeral expressions twenty and above. The bases combine with a primitive numeral one to four (i.e. those numerals in which no fragment of another numeral may be found) and with each other to form additive numeral expressions up to twenty.

The system has numeral bases with recognizable links to the body, possibly indicating that at one time it was a hands-and-feet system, in which counting moved from the left hand to the right, then switched to one foot, then the other (cf. de Vries 1998:410). These links may be seen in the fused forms for five, ten, fifteen and twenty, where the root-initial vowels elided as the phrase reduced in a process similar to that seen in adverb formation (cf. §4.1.1), and word-medial segments either elided or reduced. The numeral base *ciyja* 'five' may be the fused phrase *(e)ti (eke)j* 'hand divide up', utilizing the old root *eti*[30] 'hand', (the phrase having reduced in a process like: *eti ekej > tiykej > tiyja > ciyja*). The numeral base *setka* 'ten' appears to be the fused phrase *(o)s(nok) etka* 'person split', the numeral base *koram* 'fifteen', a fused form of the phrase *(o)ko er-em* (foot NUM:4-CST) '(an)other foot' and the expression for 'twenty' *i-osnok* 'person(s)'. The spatial relator noun *okun* 'side', which joins the smaller numeral to the preceding base, is an overt morphemic expression of addition, modifying the number it follows.[31] The conjunction *dokun* 'and' and the transitive verb *ogun* 'add on' appear to be related to it semantically and phonologically. Gestures or the touching of points on the body do not accompany use of the numerals in direct counting, as is obligatory in tally systems.

4.2.1.1 Numerals below twenty

The numeral expressions for 'one', 'two' and 'three' are definite quantifier verbs, beginning with the non-high vowels /e, a, o/, a morphological shape which is consistent with other verbs. They are morphologically complex, being composed of the numeral

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[30] Remnants of the earlier morpheme *eti* 'hand' are still found in body-part nouns *ecirfa* 'fingernail', *etit* 'palm', *eti ewek* 'elbow' and *et(i)ma* 'arm'.

[31] An alternative addition link is the verb sequence *eker osuj* 'sit upon', as in *ciyja erges eker osuj* (five one sit upon) 'six', possibly indicating the placement of a single finger on top of the thumb to "add" one.

classifier prefix *erg-* 'NUM:1' plus a numeral. Numerals four and five are monomorphemic (i.e. they do not attach a numeral classifier), are not verbal and have a consonant as their root-initial segment. Numerals six through nine are constructions composed of the base *ciyja* 'five' plus a numeral one through four with the link for addition in final position.

Numerals one through ten:

erg-es	'one'
erg-ak	'two'
erg-om	'three'
tahgur	'four'
ciyja	'five'

ciyja erg-es okun	(five one side)	'six'
ciyja erg-ak okun	(five two side)	'seven'
ciyja erg-om okun	(five three side)	'eight'
ciyja tahgur okun	(five four side)	'nine'
s-etka	(person-split)	'ten'

Numerals eleven through fourteen are constructions formed by the addition of numerals one through four to the numeral base *setka* 'ten' and linked with *okun*.

(79)   *setka   erges   okun*   'eleven'
          ten   one   side

(80)   *setka   tahgur   okun*   'fourteen'
          ten   four   side

Numerals sixteen through nineteen are formed by the addition of a numeral one through four to the base *koram* 'fifteen' and followed by *okun*.

(81)   *koram   erges   okun*   'sixteen'
          fifteen one   side

(82)   *koram   tahgur   okun*   'nineteen'
          fifteen four   side

The numeral expression for twenty employs a construction based on the noun *osnok* 'person':

(83)   *i-osnok*   *i-erg-es*   'twenty'
          3PL-person   3PL-NUM:1-one

It is not clear why *i-* '3PL' is prefixed to the noun *osnok* in the numeral expression for twenty. It is possibly because Moskona speakers consider third person plural to be the non-referential form. When asked for the name of an item which is an inalienable noun or for a verb root, third person plural is always given.

4.2.1.2 Numerals above twenty

Numerals from twenty-one to thirty-nine are numeral constructions in which the base *isnok irges* (one person) 'twenty' combines with other bases and a primitive numeral one through four.

(84)   *i-osnok*   *i-erges* *erges* *okun*   'twenty-one'
          3PL-person   3PL-one one   side

(85)   *i-osnok*   *i-erges* *ciyja* *erges* *okun*   'twenty-six'
          3PL-person   3PL-one five   one   side

(86)   *i-osnok*   *i-erges* *setka* *okun*   'thirty'
          3PL-person   3PL-one ten   side

(87)   *i-osnok*   *irges*   *setka* *ciyja* *ergak* *okun*   'thirty-seven'
          3PL-person   3PL-one ten   five   two   side

 The numeral expressions for 'forty' and above, as in (88 - 90), employ the sortal classifier *ibah* 'HUMAN' in a classifier-numeral construction.

(88)   *i-osnok*   *ibah*   *i-erg-ak*   'forty'
          3PL-person   HUMAN   3PL-NUM:1-two

(89)   *i-osnok*   *ibah*   *ciyja*   'one hundred'
          3PL-person   HUMAN   five

(90)   *i-osnok*   *ibah*   *setka*   'two hundred'
          3PL-person   HUMAN   ten

Although the traditional form *isnok ibah ciyja* 'one hundred' is used by people over thirty, the more frequent form *rad* 'hundred', adapted from the Malay word *ratus*

'hundred', is increasingly used by younger people. The Malay word *ribu* 'thousand' has been borrowed to express 'thousand'. When dealing with currency, Malay number words are always used.

In the expression for the operation of addition, the generic numeral classifier *erg-* 'NUM:1' is used in arithmetic operations involving numerals one to three, as in (91). The conjunction *dokun* 'and' (92) links numerals. The verb *ec* 'become' or *éysaha* 'reach' indicates the total.

(91)   ***Erg**-es*   *dokun*   ***erg**-ak*   *ec*   ***erg**-om.*
        NUM:1-one   and   NUM:1-two   become   NUM:1-three
        'One plus two is three.'   [D]

(92)   *Ibah*   *ciyja* ***dokun*** *ibah*   *ciyja* *romreg* *éysaha* *ibah*   *setka*.
        HUMAN five   and   HUMAN five   all   reach   HUMAN ten
        'five (people) and five (people) all totals ten (people).'   [D]

4.2.2 Numerals as definite quantifiers

The numerals used in quantifying nouns are the same set used in counting. Syntactically, numerals occur post-nominally and follow a sortal classifier (if one is required), as *tahgur* follows the classifier word *efega* in (93). Numerals may be used as definite quantifiers of simple nouns and pronouns, such as *ciyja tahgur* 'nine' modifies *mesta* 'moon' in (94) or *mirgom* 'three' modifies *mif* 'we.PL' in (95).

(93)   *mes*   *efeg(a)*   ***tahgur***
        dog   ANIMAL four
        'four dogs'

(94)   *mesta* ***ciyja***   ***tahgur***
        moon five   four
        'nine months'

(95)   *mif*   ***mi-erg-om***
        we.PL 1PL-NUM:1-three
        'we three' or 'we are three'

When modifying a noun referring to a human, the definite quantifier verbs are marked with a pronominal prefix, such as *mi-* '1PL' marking *ergom* 'three' in (95), *i-* '3PL' marking *ergom* 'three' in (96), or *y-* 'DU' marking *ergak* 'two' in (97), to indicate the person and number of the head noun.

(96)   *dadin   i-efer   **i-erg-om***.
     1SGPOS   3PL-child   3PL-NUM:1-three
     'my three children'

(97)   *ergen   efer   **y-erg-ak***
     3DUPOS   child   DU-NUM:1-two
     'their (DU) two children.'

When modifying a noun which refers to a nonhuman (i.e. animal or inanimate object), the definite quantifier verbs are marked with third person singular, a null morpheme, as is *ergak* 'two', which modifies *mok estak* 'cup' in (98).

(98)   *jig   mok   estak   **erg-ak***
     LOC   bowl   butt   NUM:1-two
     'in two cups'

Nouns such as *mebsta* 'sand', *miy* 'water' or *marefen* 'grass' may not be quantified by numerals, only by indefinite quantifier verbs, such as *etew* 'much' or *oskaytok* 'small (bit)'.

4.2.3 Names of days of the week

The days of the week are enumerated rather than named under an earlier system used mostly by older people. The enumerated days are treated as proper nouns, distinct from temporal adverbials, such as *ocu-ak-i* 'second day ago', which are affixed with the ordinal prefix and denote increments of time from the speech event. The first day of the week is considered to be Monday. The names of the days of the week are:

Mona erges	'Day One'	(Monday)
Mona ergak	'Day Two'	(Tuesday)
Mona ergom	'Day Three'	(Wednesday)
Mona tahgur	'Day Four'	(Thursday)
Mona ciyja	'Day Five'	(Friday)
Mona ciyja erges	'Day Six'	(Saturday)
Mona ciyja ergak	'Day Seven'	(Sunday)

A response to the question, "What day is today?" would be a day name, such as *Mona Tahgur* in (99).

(99)   *Mona tisef   erá   **Mona Tahgur***.
     day   today   THM   day   four
     'The day today is Day Four.' (Thursday)   [D]

Saturday has an additional name, the phonologically adapted noun compound *Mona Sawd* (day Saturday) from the Malay word *Sabtu* 'Saturday'. The compound noun *Mona Ari* (day Sunday) utilizes the noun *ari* 'Sunday' or 'week' which has been borrowed from Biak *ari* 'Sunday', an adaptation of the Malay word *hari* 'day'. Increased contact with the national culture has brought about use of Malay day names with younger people and those dealing regularly with the national culture.

4.2.4 Numeral classifiers

Numeral classifiers are not common in Papuan languages, as they are not usually found in languages which have a small number of numerals (Aikhenvald 2000:100), although they have been observed in some languages on the island of Bougainville and among islands east of New Guinea (Terrill 2002:61). Further, numeral classifiers which are fused or partially fused with numerals are generally not found in this part of the world (Aikhenvald 2000:105ff). However, the absence of a mechanism for marking nouns for plurality or indicating plural agreement in Moskona is typologically consistent with languages which have numeral classifiers (Aikhenvald 2000:100, Dik 1997b:143, Dixon 1982:212).

4.2.4.1 Numeral composition

The Moskona numerals 'one', 'two' and 'three' are composed of a numeral classifier prefix, such as *ed-* 'NUM:2' (100a), *er-* 'NUM:4' (100b), or *et-* 'NUM:3' (100c), attached to a bound numeral root, forming a constituent with the numeral. The numeral root, which is the head of the construction, may be: *–es* 'one', *-ak* 'two' or *-om* 'three'.

(100)   a.   *ed-es*   'NUM:2-one'   [ɛdɛ́s]

        b.   *er-ak*   'NUM:4-two'   [ɛɾák]

        c.   *et-om*   'NUM:3-three   [ɛtóm]

These numerals parallel the numeral roots for the Meyah numerals: *-ens*, *-eka*, *-omu* (Gravelle 2002:139). (cf. also Appendix B §2.4.3.)

4.2.4.2 Numeral classifier categories

The numeral classifiers divide nouns into eleven categories generally based on the semantic properties of the nouns in each category. There is significant semantic correlation between the numeral classifier categories and the semantic properties of the nouns they distinguish. However, because so many former distinctive categories have conflated, creating a disparity between the properties of the nouns within each category,

it is no longer possible to distinguish the present categories in terms of their properties alone. As a result, as the number of items categorized by a classifier increases, the number of semantic connections between the classifier and the nouns classified grow fewer.

Items introduced into the culture fall into categories according to the perceived properties of the noun. For example, items such as belts and boards, which are perceived as having the properties flat and thick, fall into the category 'flat thick' specified by numeral classifier *erf*- 'NUM:5', plates and metal griddles fall into the category specified by numeral classifier *ers*- 'NUM:6', which categorizes the property 'shallow depression' and paper and sheets of metal roofing fall into the category specified by numeral classifier *ork*- 'NUM:11', which categorizes the property 'thin flat'. Other items which are considered strongly associated with foreigners themselves, such as their measures of time (weeks and years), shirts (a foreign clothing item), guns, or matches fall into the generic numeral classifier class specified by *erg*- 'NUM:1'.

The numeral classifiers characterize nouns in terms of degrees of dimension, involving both size and shape.[32] The numeral classifier chart in Table 4.2 lists the class number, morphological forms, distinguishing properties of the numeral classifiers and a few example of nouns from that category.

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[32] I postulate that there were, at one time, twenty categories, which I have extrapolated from the properties found in the existing categories. Previously, numeral classifiers were divided into the major categories of animate and inanimate. The inanimate category was subdivided into objects and landforms. The animate class was composed of six classes with the properties: human, shelled (insects or crustaceans), scaled, mammalian, winged (flying), and thick-skinned (reptilian). The inanimate objects category was composed of nine classes with properties: treelike (including tree houses), long flexible, bowl-like, thick flat, thin flat, large hard round, small round, grouped, and multi-furcating. The landform category was composed of five classes with properties: shallow hole/depression, hills/ridges, extended surface, branching waterway (tributaries), and large river. The present-day Class 1 is the combined classes of landform: large river, animate: human, and animate: shelled. Class 2 is composed of the single property landform: extended surfaces. Class 3 contains the single property inanimate object: very small round. Class 4 is a combination of the classes inanimate object: hard round and landform: hills or ridges. Class 6 contains earlier classes animate: winged and landform: hills/ridges. Class 7 contains classes animate: mammalian and animate object: trees. Class 8 contains classes animate: scaled and inanimate objects: long flexible. Class 9 contains landform: tributaries and inanimate object: multi-furcated Classes 5, 10, and 11 have not combined with other classes.

Table 4.2 Numeral class chart

Class	Numeral Classifier	Category Property	Example Nouns
1	*erg-*	generic	humans, rivers, rodents
2	*ed-*	extended surfaces	land, lakes, fires, nests
3	*et-*	small rounded	bananas, eggs, peanuts, beans, seeds
4	*er-*	large rounded & leathery-skinned	rocks, ridges, hills, turtles, crocodiles
5	*erf-*	thick flat	thick bark, slabs of wood, slabs of fruit
6	*ers-*	winged & depressions	birds, bats, spoons, land depressions
7	*or-*	mammals & trees	pigs, dogs, (tree)houses
8	*orj-*	long flexible	snake, fish, poles, arrows
9	*ort-*	multi-furcated	tributaries, comb
10	*ors-*	grouped	bundles, tree branches
11	*ork-*	thin flat	leaves, thin bark, plant cuttings

4.2.4.2.1 Vestigial animacy marker

There is a vestigial morpheme *-i* '?' found within various numeral words, that at one time possibly indicated animacy. It is no longer expressed uniformly in all numerals with animate properties due to the conflation of "animate" classes with "inanimate" classes. This vestigial morpheme *-i* is found in the numerals 'one', 'two' and 'three' of numerals which have attached class 7 numeral classifiers, in numerals 'one' and 'three' of numerals which have attached numeral classifier classes 6, 7, 8 and 9, but only in the

numeral 'one' of the numeral which has attached the class 5 numeral classifier.[33] The vestigial morpheme *–i* has coalesced with the vowel of the numeral to form a high vowel, /i/ or /u/, agreeing in backness with the vowel of the numeral, as in *or-i-es* (NUM:7-ʔ-one) [oɾís] or *or-i-om* (NUM:7-ʔ-three) [oɾúm]. Table 4.3 shows the occurrences of *-i* in extant numeral forms along with their phonetic representations.

Table 4.3 Vestigial animacy marker in extant forms

Class	Numeral 'one'		Numeral 'two'		Numeral 'three'	
NUM:5	*erf-i-es*	[ɛɾɸís]	*erf-ak*	[ɛɾɸák]	*erf-om*	[ɛɾɸóm]
NUM:6	*ers-i-es*	[ɛɾsís]	*ers-(a)k*	[ɛɾsk]	*ers-i-om*	[ɛɾsúm]
NUM:7	*or-i-es*	[oɾís]	*or-i-ak*	[oɾík]	*or-i-om*	[oɾúm]
NUM:8	*orj-i-es*	[oɾd͡ʒís]	*ors-(a)k*	[oɾsk]	*orj-i-om*	[oɾd͡ʒúm]
NUM:9	*ort-i-es*	[oɾtís]	*ort-(a)k*	[oɾtk]	*ort-i-om*	[oɾtúm]

The vowel of the numeral root *–ak* 'two' in numeral classes 6, 8 and 9 elides when attaching the numeral classifiers. The numeral *ers-ak* (NUM:6-two) is realized phonologically as [ɛɾsk] and the numeral *ort-(a)k* (NUM:9-two) as [oɾtk]. The numeral classifier *orj-* 'NUM:8' has the allomorph *ors-* when forming the numeral *ors-ak* 'NUM:8-two' and also evidences the elision of the vowel of the numeral root, yielding the form [oɾsk].

Numeral words in four Meyah numerals (Gravelle 2004:139 and p.c.) may also be observed to have the phoneme /i/ occurring word-medially, as in *or-i-ens* 'CL:2-ʔ-one', *orj-i-ens* 'CL:7-ʔ-one', *ers-i-ens* 'CL:3-ʔ-one' and *erb-i-ens* 'CL:8-ʔ-one', suggesting that a possible morpheme for animacy occurred at one time in Meyah numerals also.

4.2.4.3 Numeral classifier function

When the numerals one, two, or three quantify a noun, the numeral classifier employed signals that the semantic feature of the category is in focus. The generic numeral classifier *erg-* 'NUM:1' may be used with any, or almost any noun, replacing the other more specific classifiers when a more precise classifier is uncertain or unimportant. The numeral classifiers also serve to delimit possible referents of nouns. The roots for 'nest' and 'tuber' are homophonous. The numeral classifiers *ed-* and *ork-* in (101) eliminate possible confusion.

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[33] Although one might expect the animacy morpheme to be found in class 1 numerals because humanness is one of the properties of that class, it is not; possibly because numerals 'one' through 'three' are marked for agreement with a human referent by a pronominal prefix, thereby making its presence redundant.

(101) a. *efem* **ed**-*om*   b. *efem* **ork**-*om*
           nest   NUM:2-three   tuber NUM:11-three
           'three nests'   'three tubers'

The numeral classifier *et-* 'NUM:3', is affiliated with the category which includes seeds. The numeral *etom* 'three' quantifies the noun phrase *mesnom efej* in (102), focusing on the size property of that category, delimiting the reference to seeds, not whole cobs of corn, which would be expressed with the numeral *er-om* (NUM:4-three).

(102) *Ofa* *er-ef*   *mesnom* *efej* **et-om**   *esis.*
       s/he   CAUS-distribute   corn   dried   NUM:3-three exclude
       'She spread (planted) just three corn kernals.'   [T29]

When functioning attributively, numerals one, two and three may be affixed with a pronominal prefix to agree with the person and number of the human referent, such as *i-* '3PL' attached to *ergom* in (103), signaling the third person plural referent, or *mi-* '1PL' in (104), indicating the person and number of the pronoun *mif.*

(103) *eri*   *i-erg-om*
       they.PL   3PL-NUM:1-three
       'they three'

(104) *mif*   *mi-erg-om*
       we.PL   1PL-NUM:1-three
       'we three'.

4.2.5 Sortal classifiers

Noun classification systems are an important typological feature of Papuan languages (Foley 1986:77). One type of nominal classification system is that which utilizes sortal noun classifiers. The sortal classifiers provide the means for categorization of an object by limiting the possible choice of referent. Sortal classifiers are a finite set of generic nouns, (a subcategory of nouns), which have been grammaticalized, that is, undergone a change of meaning to express a "sort" (Denny 1986:299, C. Lehmann 1993:322). A sort categorizes nominal referents as members of a set, denoting some attribute of the nouns to which they refer, designating the item as a unit of that specific class (Aikhenvald 2000:190, Denny 1986:302). Sortal noun classifiers, with the exception of the sortal classifier *ibah* 'HUMAN', are generic nouns and are independent phonological and morphological words, utilized in sortal noun-numeral constructions. Their occurrence is restricted to co-occurrence with numerals functioning enumeratively, that is, they do not occur with numerals used as specifiers (§4.2.6). They are non-quantitative, that is, they give no unit of measurement and do not function as classifiers in other types of noun phrases.

Sortal classifiers typically describe some inherent property which all the entities in that category share (Aikhenvald 2000:115). The sortal classifier hierarchy illustrated in Diagram 4.1 displays an imposed classificatory hierarchy, which is semantically based and categorizes entities in terms their inherent properties of animacy, function and consistency with noun classes noted in parenthesis. The animate category is subdivided into human and animal. The inanimate category is subdivided into the functions of edible and inedible objects. Edible items (i.e. plant life) are subdivided on the basis of physical hardness: solid (all hard fruits, vegetables and leaves) versus semi-solid fruit and vegetables. Inedible items are subdivided into organic (plants) and inorganic (rocks), including some organic but inedible items (e.g. fruit pits).

Diagram 4.1 Sortal classifier hierarchy
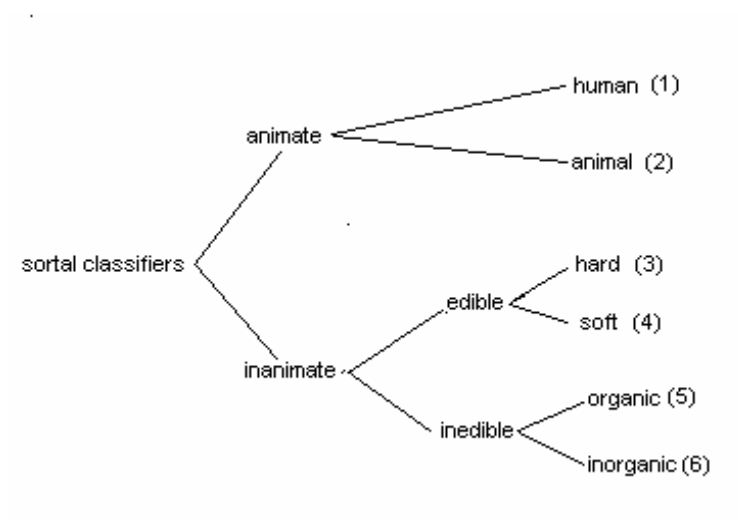
The sortal noun classifiers begin with a non-high vowel /e, o, a/, like the inalienable nouns. However, unlike the inalienable nouns, when generic nouns are functioning as sortal classifiers, they are not inflected with a pronominal prefix indicating person and number. The sortal noun classifiers which classify non-human entities may be observed to have the same root-initial segment shape of vowel plus a labial consonant, resembling the inalienable nouns which have fused with an old (possessive) prefix *ef-* (§3.1.2.2.3).

Table 4.4 lists the sortal noun classifiers. Class 1 classifies only humans. Class 2 classifies all non-human creatures except insects, but includes trees. Class 3 classifies edible plants which are solid or hard, such as edible leaves, tubers and hard-shelled fruit. Class 4 classifies semi-solid or soft fruits, such as bananas. Classes 5 and 6, which are inedible items, combine properties of shape and hardness. Class 5 classifies flat pliable plant matter, and Class 6 classifies hard spherical materials, such as hard seeds, pits or small stones.

Table 4.4 Sortal noun classifiers

Class	Classifier	Class	Example nouns
1	*ibah*	HUMAN	humans
2	*efega*	ANIMAL	animals, trees, fish
3	*ewet*	SOFT	bananas
4	*owos*	VEG	spinach, squashes, hard fruit
5	*efi*	FLAT	leaf, paper, bark
6	*ebej*	STONE	stones, fruit pits, hard seeds

The sortal-numeral construction is composed of a sortal classifier, as head of the construction, immediately followed by a numeral, illustrated in (105) by the sortal classifier *efeg* 'ANIMAL' which precedes the numeral *orska* 'two', in (106) by the sortal classifier *efi* 'FLAT' which precedes the numeral *tahgur* 'four' and in (107) by the sortal classifier *owos* 'VEG' which precedes the numeral *eres* 'one'. The sortal classifier distinguishes a sortal-numeral construction from a noun-adjective construction.

(105)   *mogos(a)* **efeg(a)**   *ors-ka*
        snake   ANIMAL   NUM:8-two
        'two snakes'   [T24]

(106)   *Ofa   ec   kertas   efi   tahgur.*
        s/he   buy   paper   FLAT   four
        'He buys four sheets of paper.'   [D]

(107)   *Ofa   orka   mebet   owos   er-es.*
        s/he   carry   squash   VEG   NUM:4-one
        'She brought one squash.'   [D]

Sortal classifiers may stand in the position of the head noun, preceding a numeral, as in the phrase *ebej etes* in (108), which refers anaphorically to an inedible bean seed. As mentioned above, sortal classifiers do not occur in other types of noun phrases and so may not function as head noun in other types noun phrases, but must be modified by a numeral.

(108)   *Mem-kokar no-ma-i   et ebej   et-es*
        bird-crow   DNR-far-GIV   eat STONE   NUM:3-one
        'The chicken ate one (bean).'   [T29]

Both numeral classifiers and sortal classifiers specify entities on the basis of their properties, but may work in concert to further delimit a nominal reference. The numeral classifier *et-* in *et-es* (NUM:3-one) categorizes seeds or small round things, but the item may be further distinguished by a sortal classifier. The sortal classifier *owos* 'VEG' in

(109a)*,* functioning anaphorically, specifies that one (bean) is soft and edible, but the sortal classifier *ebej* 'STONE' in (109b), specifies that the bean is hard and inedible.

(109)   a.   ***owos*** *et-es*   b.   ***ebej***   *et-es*
               VEG   NUM:3-one   STONE   NUM:3-one
               'one bean' (edible)   'one bean (inedible)'

Not all entities are assigned to a noun class. This may be observed in noun-numeral phrases, such as *mem er-es* (bird NUM:4-one) 'one bird', *mem ofuy et-ak* (bird egg NUM:3-two) 'two bird eggs', *mowuj orj-i-om* (house pole NUM:8-ʔ-three) 'three house poles' and *efem ed-ak* (nest NUM:2-two) 'two nests'.

4.2.6 Non-enumerative functions of numeral classifiers

Numeral classifiers also function non-enumeratively in indefinite specifiers, contrastive specifiers or interrogative quantifiers.

4.2.6.1 Indefinite specifier

The numerals, composed of a numeral classifier prefix plus the numeral *-es* 'one', also have a non-enumerative function. They function as indefinite specifiers, indicating indefinite reference as they introduce an item as new information (i.e. a new participant or topic). They are not indefinite articles, as their occurrence is limited to the introduction of new information, and the presence of numeral classifiers suggests an absence of distinct definite or indefinite articles (cf. Foley 1997:231). In (110), the numeral *eres* 'one' introduces the alienable noun *mejuen* 'crocodile' as a new participant into the speech event. The sortal classifier *efega* 'ANIMAL' is not present since *eres* is functioning non-enumeratively, contrasting it with the sortal noun-numeral construction in (111), in which the numeral *eres* 'one' modifies the sortal classifier *efega* 'ANIMAL'.

(110)   *Orna   no-ma-i,   ofa   ef   mejuen   **er-es**.*
         man   DNR-that-GIV s/he   spear   crocodile   NUM:4-one
         'The man, he speared a crocodile.'   [D]

(111)   *Mejuen   efeg(a)   **er-es**.*
         crocodile   ANIMAL   NUM:4-one
         'one crocodile'   [T23]

4.2.6.2 Contrastive specifier

To indicate indefinite contrast of the referent with other like entities, a numeral classifier is prefixed to the bound root *–em* 'CST' to form a contrastive specifier. All numeral classifiers may attach to the *–em* root to form a contrastive specifier. When the

contrastive specifier modifies a noun, the contrast may indicate contrast with a specific unit, translatable as 'another' or contrast with many units, translatable as 'one of X' or 'any X'. The numeral classifier *ork-* 'NUM:11' attached to *–em* 'CST' in (112) forms a contrastive specifier which contrasts the specified *moroj* 'path' with other paths.

(112)   *Eri   i-em-owha   rot   moroj   ork-em*.
        they.PL 3PL-IRR-leave about   path   NUM:11-CST
        'They would leave on another path.'   [T25]

The contrastive specifier *–em* has the allomorph *–om* when attached to numeral classifiers with a mid back vowel in the prefix, as in *or-* 'NUM:7', *orj-* 'NUM:8', *ort-* 'NUM:9', *ors-* 'NUM:10' and *ork-* 'NUM:11'. This allomorph is homophonous with the numeral *–om* 'three', such that resulting the numerals and contrastive specifiers are potentially ambiguous. In phrases such as *merga or-i-om* (tree NUM:7-CST) 'another tree' [mɛ́ɾga oɾúm] or (tree NUM:7-three) 'three trees' [mɛ́ɾga oɾúm], only context provides the necessary semantic information to distinguish the correct choice of meaning. However, when the numeral occurs with a sortal classifier in a sortal noun-numeral construction there is no ambiguity, as in the phrase *mod efega or-i-om* (house ANIMAL NUM:7-ʔ-three) 'three houses', as sortal classifiers do not occur with numerals used as specifiers.

The numeral prefixed with either the numeral *–es* 'one' or the contrastive root *–em* 'CST' (or its allomorph *–om*) may function anaphorically, taking the place of the head noun, such as, *er-es* 'NUM:4-one' in (113) replaces the noun for 'seedpod', or *or-i-em* (NUM:7-ʔ-CST) 'another (one)' in (114), stands in the position of the head noun 'dog'.

(113)   *Ofa   eyta   er-es   ni   oked   mar*.
        s/he   take   NUM:4-one   for   chant   thing
        'He took one (large seedpod) to speak incantations over.'   [T27]

(114)   *Mes   obra   or-i-em*.
        dog   bark.at   NUM:7-ANIM-CST
        'The dog barked at another (dog).'   [T24]

When referring to a human, the contrastive specifier *erg-em* is inflected with a pronominal prefix, such as *y-* 'DU' in (115), signaling the person and number of the referent.

(115)   *Bua   éra dif-a noga y-owha,   tiná   y-erg-em   erá   y-eker*.
        you.SG   or I-PGE REL DU-leave   but   DU-NUM:1-CST   THM   DU-sit
        'Either you or I are (the one) who leaves, but one of us stays.'   [D]

When modifying the generic noun *mar* 'thing', the contrastive specifier expresses an indefinite inanimate pronoun, such as 'anything' or 'nothing', as in (116). When inflected

with a pronominal prefix, it serves as an indefinite human pronoun, such as 'anyone' or 'whoever', as in (117).

(116) *Dif di-em-en   mar erg-em   tin   éra.*
      I   1SG-IRR-do thing NUM:1-CST also   NEG
      'I didn't even do anything.'   [D]

(117) **I-erg-em**   *i-er-ot*   *dif.*
      3PL-NUM:1-CST 3PL-CAUS-stand   I
      'Anyone (can) accompany me.'   [D]

The contrastive specifier *erg-em* may may be nominalized by the generic nominalizing prefix *m-* 'NR' or the deictic nominalizer *no-* 'DNR', yielding the nominalized specifiers *m-erg-em* 'the other one' (118) and *no-erg-em* 'the other place' (119).

(118) *Bua   bi-ofra mar no-ka-i   efembra **m-erg-em**=mej.*
      you.SG   2SG-lift item DNR-near-GIV flank   NR-NUM:1-CST=remote
      'Lift this thing's other side over there.'   [D]

(119) *Ofa   eyja jig   ok   **no-erg-em**.*
      s/he   go   LOC   side   DNR-NUM:1-CST
      'He went to the other side (area).'   [T28]

A contrastive suffix has also been observed in two languages with close geographic proximity to Moskona, Meyah with the morphologically similar morpheme *–ema* 'other' (Gravelle 2004:139) and Hatam with the suffix *-bihi* 'other' (Reesink 1999:60).

4.2.6.3 Interrogative quantifier

The numeral classifiers may be prefixed to the bound quantifier *–(a)ha* 'QUAN' to form an interrogative quantifier. The numeral classifier *or-* 'NUM:7 in (120) prefixed to *–(a)ha* yields the interrogative quantifier *oriha* 'how many' or 'what number of' for nouns in class 7. The numeral classifier *ers-* 'NUM:6' (121) attaches to *–(a)ha* to form the interrogative quantity word *ersha* 'how many' for nouns in class 6.

(120) *Mes efega   **or-i-(a)ha?***
      dog   ANIMAL   NUM:7-?-QUAN
      'How many dogs are there?'   [D]

(121) *Bua   buwun   mem **ers-(a)ha?***
      you.SG 2SGPOS   bird   NUM:6-QUAN
      'How many birds do you have?'   [D]

The interrogative quantifier word *erg-aha* 'how many' may also function as quantity adverbial, as in (122).

(122) *Bua   bi-osot   srad   efi   no-ma-i   erá   éysaha*
       you.SG   2SG-count document   leaf   DNR-far-GIV THM   reach

       erg-aha   *jog.*
       NUM:1-QUAN   already
       'Count up how many pages there are already.'   [D]

4.2.6.4 Distributive quantifier

The distributive quantifier *erg-esis* (NUM:1-exclude) 'each' or 'separately for each' [ɛrgɛ́sis] is composed of the generic numeral classifier *erg-* 'NUM:1' prefixed to the verb *esis* 'exclude'. It expresses a distributive property, indicating when something applies to each member of a set, as in (123), or one by one (e.g. per head; in each case, etc.) as in (124). This is not a productive construction, as it does not form a distributive quantifier with each individual numeral classifier. The distributive quantifier occurs post-nominally, as do the definite and indefinite quantifiers.

(123) *Bua   bi-eyh(a) pajak[34]   mesta   **erg-esis**.*
       you.SG   2SG-pay   tax   moon   NUM:1-exclude
       'You paid the tax each month.'   [TT]

(124) *I-osnok   **i-erg-esis**   erá   i-eyja   jig   desa[35]   ofon*
       3PL-person 3PL-NUM:1-exclude   THM   3PL-go   LOC   village   3SGPOS

       mod   jef.
       house   DEON
       'Each person should go to the *desa*'s house.'   [D]

4.2.6.5 Reduplication of specifiers and indefinite quantifiers

Contrastive specifiers utilize reduplication to signal intensification of quantity, changing the lexical meaning to 'several (different things)', such as the reduplicated contrastive specifier *ergergem* in (125), or the reduplicated contrastive specifier *edemdem* in (126).

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[34] The word *pajak* is a Malay word.
[35] The word *desa* 'village' is borrowed from Malay and denotes a village or a village representative assigned by the local government.

(125) *ergog   y-eyja y-ebah mesta **erg-erg-em**   jig   mow erg-em*
 they.DU   DU-go   DU-live moon   NUM:1-RED-CST LOC   place NUM:1-CST
 'they went [and] lived several months in another place'   [T23]

(126) *Mocimbi   em-oytut mow **ed-em-dem**.*
 earthquake   IRR-quake land   NUM:2-CST-RED
 'The earthquake shakes several places.'   [TT]

The indefinite quantity notion 'anything', expressed as the phrase *mar ergem* (thing (an)other) may also intensify quantity by reduplicating the word to yield a meaning like 'anything of any kind', as in (127).

(127) *Bua   bi-em-en   mar **erg-e(m)-rgem** ekris   di-oduy   edak.*
 you.SG 2SG-IRR-do   thing NUM:1-CST-RED exceed 1SG-front NEG.DEON
 'You shouldn't do anything (of any kind) against my wishes.'   [D]

The interrogative quantifier *érgaha* 'how many' may be reduplicated to yield the indefinite quantifier *ergegaha* [ɛrgɛ́gaxa] 'several' or 'a number of', which has an initial non-high vowel like the indefinite quantifier verbs, but is distinguished from them, in that, it does not function predicatively and so does not attach the irrealis morpheme *em-* 'IRR'. When modifying a noun which refers to a human, the reduplicated interrogative quantifier is inflected with a pronominal prefix to agree with the referent, such as *i-* '3PL' in (128).

(128) *I-osnok   **i-erg-e(r)g-aha**   noga i-er-omn(a)   dif.*
 3PL-person   3PL-NUM:1-RED-QUAN   REL   3PL-CAUS-cheek I
 'Several people were [the ones] who accompanied me.' or
 'There were several people who accompanied me.'   [D]

The quantifier *ergákék* 'both', composed of the generic numeral classifier *erg-* 'NUM:1', the numeral *–ak* 'two' and a reduplicated form *–ek* 'RED', is an expression based on a numeral, but not part of the numeral system. It modifies a head noun in a noun phrase but does not function predicatively. Because the quantifier *ergakek* 'both' in (129) modifies a human referent, it attaches the pronominal prefix *y-* 'DU'.

(129) *Yef   y-**erg-ak-ek**   y-eyja jig   maeken(a).*
 we.DU   DU-NUM:1-two-RED   DU-go   LOC   garden
 'We both went to the garden.'   [T29]

4.3 Prepositions

Moskona has a large inventory of prepositions, forming a closed class of monomorphemic forms which take no affixation. They form a lexical class based on their

function as role markers for peripheral arguments. Their syntactic behavior is discussed in chapter 7, which discusses prepositional phrases.

Prepositions have a root-initial consonant which is not /m/, providing a morphophonological criterion to distinguish them from verbs and nouns. Some prepositions, like adverbs (§4.1.1), appear to be derived from verbs, which undergo a change in word class through loss of a root-initial vowel. A few examples of extant verbs and the prepositions which have been derived from them may be seen in the list below.

	Verb		Preposition
efen	'be (away) from'	*fen*	'(away) from'
ekerenga	'be upon'	*kerenga*	'upon'
odos	'meet'	*dec ~ doc*	'same location as'
ocuk	'block'	*jug*	'against'

Semantically, prepositions may be divided into two subclasses: spatial prepositions and non-spatial prepositions.

The spatial prepositions are:

dec	'same location as' or '(in the) presence of'
fen	'(away) from'
had	'toward'
kerenga	'upon'
jig	'LOC' (generic)
kuk	'along'
ni	'at'
rejrej	'around'
rud	'against'
rudud	'by'
skod	'to (s.o. location)'
tum	'on(to) (surface of)'

The non-spatial prepositions are:

daka	'avert'
gug	'to (goal)'
jera	'(along) with'
jida	'until'
jug	'against'
rot	'about' or 'with'
sof	'instead (of)'
ten	'BEN (benefit of)'

ni	'for (benefit of)'	
ni	'on/at' (specific time/date)	

Prepositional notions are not expressed solely by prepositions, but are also expressed by a small group of verbal prepositions (§9.2) and the spatial relator nouns (§3.1.2.2.2).

4.4 Question words

Question words, which are used to request information, come from several word classes. (Discussed more fully in §12.1.2.) Forms meaning 'who' or 'what' are nominal, the form meaning 'which' is a demonstrative, forms expressing 'when', 'how' and 'where' are adverbial and the word for 'how many' is verbal. The questions words used in information questions are:

ida	'who'	human entity
midá	'what'	non-human entity
echa	'when'	time
hádefa	'where'	location
tínefa	'how'	manner
nefa	'which'	identity
érgaha	'how many' ~' how much'	quantity
rot midá	'why'	reason

Question words regarding time, location, manner, identity or reason are phrases or words. The question word *midá* 'what' is composed of the generic nominalizer *m-* plus the human entity question word *ida* 'who(ever)'. The proximal deictic *–ef* attached to the deictic nominalizer prefix *no-* 'DNR' forms the demonstrative pronoun *nef* 'which', that may also function interrogatively. The proximal deictic *–ef* cliticized to the preposition *had* 'toward' forms *hádefa* 'where'. (The final *–a* 'PGE' in these words is optional in running speech.)

n(o)-ef-a	'which (one)'	(DNR-near-PGE)	[nέɸa]
had-ef-a	'where'	(toward=near-PGE)	[xádɛɸa]
ti-n(o)-ef-a	'how'	(?-DNR-near-PGE)	[tínɛɸa]

The interrogative manner word *ti-nef-a* 'how' is composed of a prefix *ti-*, unattested in other Moskona forms, plus the question word *nef* 'which' and an optional *–a* 'PGE'. The prefix *ti-* may have as an origin the Hatam nominalizer *ti-/ si-* (Reesink 1999:92), referred to by Reesink (2002a:17) as an areal nominalizer. The prefix *ti-* is morphologically similar to the prefix *tei-* which attaches to the root *-enefa* in the Meyah manner question word *teinefa* 'how' (Gravelle 2004:165). Maybrat has an interrogative prefix *to-*, but it refers to location (Dol 1999:116).

Question words which request quantity are composed of the bound quantifier root *–aha* 'QUAN' prefixed with a numeral classifier prefix, a prefix which is determined by the properties of the noun category.

(130) a.   *erg-aha*   'how many' (generic)   (NUM:1-QUAN)   [ɛ́ɾgaxa]

   b.   *or-i-aha*   'how many' (mammals)   (NUM:7-?-QUAN)   [oɾíxa]

   c.   *ers-(a)ha*   'how many' (winged)   (NUM:6-QUAN)   [ɛ́ɾsxa]

   d.   *ork-aha*   'how many' (thin flat)   (NUM:11-QUAN)   [oɾkáxa]

The temporal quantity word *cergáha* 'how many times' is composed of the generic numeral classifier prefix *erg-* 'NUM:1', prefixed with *c-*, a variant of the ordinal prefix *ocu-* 'ORD' and the quantifier root *–aha* 'QUAN'.

   c-erg-aha   'how many times'   (ORD-NUM:1-QUAN)   [t͡ʃɛ́ɾgáxa]

4.5 Conjunctions

Conjunctions are words which link words, phrases or clauses. Coordinating conjunctions, which conjoin units of equal rank, form a small closed class. The aspectual adverb *eke* 'almost' functions as an enumerator, conjoining words, phrases or clauses, and so is included in the list of conjunctions. The coordinating conjunctions are given in the list below along with the semantic relations which they govern. The syntactic behavior of conjunctions is discussed in §11.3.

Conjunction	Gloss	Semantic Relation
dokun	'and/with'	additive/ conjoining
edá	'then'	sequential
eke	'ENUM'	enumerative
tiná	'but'	adversative
éra	'DSJ'	disjunctive
erogá	'hence' or 'so'	sequential-resultative

Subordinating conjunctions conjoin units of unequal rank, marking one element as subordinate to the other. Subordinating conjunctions fall into three groups: complementizers, relativizers and adverbializers (Schachter 1985:50). Moskona has two complementizers, *ohot* 'say', a speech verb which functions as a subordinator for direct and indirect quotes, and *rot* 'about', a preposition which introduces the complements of cognition, mental or intent verbs. The relativizer *noga* 'REL' is composed of the deictic nominalizer *no-* plus the relativizer root *–ga*. The words which serve as adverbializers in Moskona come from the classes of prepositions and verbal prepositions, as illustrated in the following lists.

Prepositions as subordinating conjunctions:

daka	'avert'	negative purpose
jida	'until'	temporal non-overlap
jig	'LOC'	locational
jug	'against'	negative purpose
ni	'for'	purpose
sof	'instead (of)'	replacive

Verbal prepositions as subordinating conjunctions:

eke	'ENUM'	enumeration
esha	'be (away) from'	cause/reason
erésha	'by means of' or 'through'	means
okuk	'like'	manner
oromn jen	'according to' / 'as'	manner
orosunun	'up to (limit)' / 'until'	temporal termination

Chapter 5
Deixis

5.0 Introduction

Deictic elements are those forms in a language which are used for pointing to things or places. Utilizing a relative perspective, the basic parameter which characterizes their application is distance from a point of reference, which may be the speaker, a previous utterance or the present time. Thus, deictic elements are closely tied to the speaker in the here-and-now.

This chapter provides a presentation of the deictic elements found in Moskona. Its purpose is to discuss the four dimensions of deixis operating in the language: personal, spatial, textual and temporal deixis, and to provide discussion and illustration for each. Personal deixis is included in this chapter because pronouns are referring expressions which are context sensitive (Croft 1991:127, Anderson and Keenan 1985:260). A description of the personal deixis system begins with the pronoun sets in §5.1 and concludes with the pronominal affixes in §5.1.6. A discussion of the spatial deixis system opens in §5.2 with the introduction of the spatial deictic clitics, followed by a presentation of three sets of terms indicating additional dimensions of space. In §5.3, textual deixis is discussed, followed by the added dimension of known information and the deictic focusing element. Temporal deixis as an extension of spatial deixis is introduced in §5.4. The chapter concludes with several non-deictic spatial expressions in §5.5.

5.1 Personal Deixis

Pronouns are a finite set of words used to refer to the speaker, the hearer(s) and other persons or entities whose referents are presumed clear to the hearer(s) (Schachter 1985:25). Moskona has four sets of pronouns and one primary set of pronominal prefixes, which are all morphologically related to varying degrees. (Other pronominal prefixes, such as those on kinship terms (§3.1.3.2) and those which occur on a few collapsed emotional-state predicates (§9.3.1.1), are restricted to those specific instances.) The pronoun sets are composed of the personal pronouns, the possessive pronouns, the reflexive pronouns and the exclusive pronouns. Table 5.1 gives an overview of the forms of the pronouns and pronominal prefixes.

Table 5.1 Comprehensive chart of pronominals

	Personal	Possessive	Reflexive	Exclusive	Prefix
1SG	dif	dadin	difaha	di-esisok	di-
2SG	bua	buwun	buaha	bi-esisok	bi-
3SG	ofa	ofon	ofaha	ø-esisok	ø
1DU	yef	yefyen	yefaha	y-esisok	y-
2DU	yoga	yogyen	yogaha	y-esisok	y-
3DU	ergog	ergen	ergaha	y-esisok	y-
1PL	mif	mifmin	mifaha	mi-esisok	mi-
2PL	yua	yuyun	yuaha	yi-esisok	yi-
3PL	eri	erin	eriaha	i-esisok	i-

The personal pronouns, possessive pronouns and reflexive pronouns distinguish three degrees of number and three persons, yielding nine-person pronoun sets, a type less frequently observed in the world's pronoun systems (Ingram 1978:220), but found in a number of other languages of the Bird's Head (Reesink 1998:620). There is a greater degree of distinction in the pronoun sets than in the pronominal prefixes, (and by extension the exclusive pronouns, which are inflected for referent by the pronominal prefixes), as all dual categories in the pronominal prefixes have collapsed into a single prefix *y-* 'DU'. The pronoun sets do not distinguish gender, although gender is found in various Papuan stocks. Rather, if necessary to distinguish the gender of a pronominal referent, a compound composed of a third person personal pronoun plus a noun indicating gender, *es* 'male' or *ej* 'female', is used (cf. §3.1.4.1.7).

5.1.1 Personal pronouns

The personal pronouns are syntactically distinctive from other pronouns, as they may occur as a core grammatical argument (subject or object), a peripheral argument or occasionally possessor in a possession phrase, that is, they may take the place of a noun, or noun phrase referring to a human. (Personal pronouns typically refer to humans, with the exception of anthropomorphic use in legends in which animals take on human traits.) Third person personal pronouns do not distinguish gender, and so are glossed as 's/he' in examples. Third person pronouns are less deictic, acting more like nouns, in that they may be modified by a demonstrative pronoun, such as *ergog* 'they.DU' modified by the demonstrative pronoun *nomi* in (1) and in a few limited circumstances they may be modified by a noun (cf. §6.2).

The personal pronouns are:

SG	1	*dif*
	2	*bua*
	3	*ofa*
DU	1	*yef*
	2	*yoga*
	3	*ergog*[36]
PL	1	*mif*
	2	*yua*
	3	*eri*
	recip	*mogum*

Some of the personal pronouns appear to be morphologically complex. The first person personal pronouns, *dif* 'I', *yef* 'we.DU' and *mif* 'we.PL', references which include the speaker, appear to be composed of a first person pronominal prefix, *di-* '1SG', *y-* 'DU' or *mi-* '1PL' and the proximal deictic *–ef* 'near'. The vowel /i/ in the prefixes *di-* and *mi-* and the vowel /e/ in the proximal deictic *–ef* coalesce to produce /i/ in the pronouns *dif* and *mif*. The second and third person dual pronouns *yoga* 'you.DU' and *ergog* 'they.DU' appear to be composed of a bound root *–og(a)* plus the prefix *y-* 'DU' for second person dual and the numeral classifier *erg-* 'NUM:1' for third person dual. (There is little evidence that the dual pronouns are derived from the numeral *–ak* 'two', although they may share a common ancestry.) The second person personal pronouns *bua* 'you.SG' and *yua* 'you.PL' as well as the third person personal pronouns *ofa* 's/he' and *eri* 'they.PL' may not be broken down further, although it may be noted that *eri* and the third person plural pronominal prefix *i-* both contain the high front vowel /i/, as does the plural marker *–ir* 'PL'.

The personal pronouns may occur in all positions filled by noun phrases, serving as core arguments, such as the subject *dif* 'I' in (1), or the object *yef* 'we.DU' in (2), or as peripheral arguments, such as *ergog* 'they.DU' in (1) or *yef* we.DU' in (3).

(1)   **Dif** di-éysaha dec   **ergog**   no-ma-i   y-oyom-okum.
       I   1SG-reach same.loc.as they.DU DNR-far-GIV   DU-request-heavy
       'I arrived in the presence of those two arguing.' (request heavy = argue)   [D]

(2)   *masur esk(a)* **yef** *esebra*   *er-os*   *men-esif tum*.
       sandfly sting   we.DU continuous   CAUS-mve.horiz. day-open   onto
       'sandflies stung us continuously until daylight'   [T29]

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[36] Alternate forms of the third person dual pronoun *ergog* are *yofug* and *ofug*.

(3)   **Ofa** ecka   mostebka efej jig mok estak erg-ak   gug **yef**.
      s/he dish.up beans   dried LOC bowl butt NUM:1-two to   we.DU
      'She served beans in two bowls to us.'   [D]

The reciprocal pronoun *mogum* appears to be composed of the reciprocal circumfix *(e)m-
-im(a)* and the root *–og,* which is also found in the dual pronouns. The reciprocal pronoun
mogum '(to/with/from) each other', used to express mutual actions, may function as an
object or an peripheral argument with a semantic role as goal, recipient, source or
beneficiary. It is unmarked syntactically as the agent and reciprocal participant are co-
referent and have conceptually merged by association, conferring on it core status. (cf.
Payne 1997:200, Foley and Van Valin 1985:302). All other peripheral arguments are
coded for semantic role by a preposition (§7.0). When serving as a peripheral argument,
the reciprocal pronoun occurs in the same clausal position as other peripheral arguments
which have similar semantic roles (i.e. following the object). Person and number
distinctions are neutralized for *mogum*, such that it may refer to two people, such as the
object in (4) referring to *yef* 'we.DU', or many people, as in (5) referring to *eri* 'they.PL'
or in (6) referring to *mif* 'we.PL'.

(4)   *Yef*   *y-egen*   *mona ofoj*   **mogum**   *esha ni y-owha   jig*
      we.DU   DU-promise day   pre-set   each.other from for DU-leave LOC

      kota.
      town
      'We promised a pre-set time to each other in order to leave for town.'   [D]

(5)   *Eri*   *i-ohot*   **mogum**   *ni i-oksomus..*
      they.PL 3PL-say each.other for 3PL-return
      'They said to each other to return...'   [T9]

(6)   *mif mi-eyta   karet*   **mogum**
      we.PL 1PL-take   rubber   each.other
      'we gave rubber (bands) to each other'   [T22]

5.1.2 Possessive pronouns

There are nine possessive pronouns, which distinguish three persons and three degrees of
number, to express definite possession. The possessive pronouns appear to have been
originally a construction composed of a personal pronoun, a pronominal prefix indicating
person and number of the possessor, and a possessive verb. There is no longer a transitive
verb, such as *en,* meaning 'have' or 'possess', and the present forms have become highly
fused, containing only fragments of the original components, so that the vowels are not
easily explained. As this is a not productive construction, the possessive pronouns will be
represented as unitary forms in subsequent discussion.

The possessive pronouns are:

SG	1	*da-d-in*	*dadin*	[dádin]
	2	*bi-b-un*	*buwun*	[búwun]
	3	*of-on*	*ofon*	[óɸon]
DU	1	*yef-y-en*	*yefyen*	[jéɸjɛn]
	2	*yog-y-en*	*yogyen*	[jógjɛn]
	3	*erg-en*[37]	*ergen*	[ɛ́ɾgɛn]
PL	1	*mif-m-in*[38]	*mifmin*	[míɸmin]
	2	*yu-y-un*[39]	*yuyun*	[jujún]
	3	*eri-in*	*erin*	[ɛ́ɾɪn]

Possessive pronouns precede the possessed in a noun phrase, such as *dadin* in (7) precedes *mok* 'bowl' or *ergen* precedes *efer* 'child' in (8).

(7)   *Dif **dadin**   mok   ah   hadef-a?*
       I   1SGPOS   bowl lie where-PGE
       'Where is my bowl?'   [D]

(8)   *Y-ek   **ergen**   efer   no-ma-i,   ofa orokec   tek-tek   jog.*
       DU-see 3DUPOS   child DNR-far-GIV   s/he big   increment already
       '(They) saw their child, he was already big (grown) bit by bit.'   [T10]

Possessive pronouns obligatorily have a 'possessed' item and therefore do not occur independently. That is, they are not expressions of 'mine', 'yours' or 'ours', but always occur in a possessive phrase construction, usually imbedded within a larger construction. However, if the head noun is omitted, a possessive pronoun, such as *buwun* in (9), may stand in its place.

(9)   ***Buwun***   *e-nef=o?!*
       2SGPOS   FOC-which=EMP
       'Your (thing) is which (one)?!'   [D]

The possessive pronouns, such as *yefyen* in (10) and (11), may also function predicatively as possessor verbs (§9.8.1.1.2).

(10)   *Dif dokun dadin   mahina   **yefyen** efer.*
       I   and   1SGPOS   husband 1DUPOS   child
       'I and my husband have a child.'   [T29]

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[37] An alternate form for third person dual is *ofyen*.

[38] An alternate form for first person plural possessive pronoun is: *mifin*.

[39] Alternate forms for third person plural possessive pronoun are: *yuyun ~ uyun ~ uwun*.

(11)   *Yef*   **yefyen**   *i-efer*   *i-erg-om.*
       we.DU   1DUPOS   3PL-child   3PL-NUM:1-three
       'We have three children.' or 'our three children.'   [D]

Although possessive pronouns typically refer to an animate entity, such as *yefyen* refers to humans in (11), they may also refer to an inanimate entity, such as *ofon* '3SGPOS' refers to *srad nomi* 'the document' in (12).

(12)   *Srad*   *no-ma-i*   *ahacum,*   *esha*   **ofon**   *merahays(a)*   *erá*
       document   DNR-far-GIV   inactive   from   3SGPOS   Christmas   THM

       oysa   *jog.*
       finish   already
       'The document is invalid, because it's year is already up.' (Christmas = year) [D]

5.1.3 Reflexive pronouns

There are nine pronouns which have a reflexive function. They are distinct from the reciprocal pronoun. The reflexive pronouns distinguish three persons and three degrees of number, agreeing in person and number with their antecedent. The reflexive pronouns are:

SG	1	*dif-aha*[40]	[diɸáxa]
	2	*bu(a)-aha*	[buáxa]
	3	*of(a)-aha*	[oɸáxa]
DU	1	*yef-aha*	[jɛɸáxa]
	2	*yog(a)-aha*	[jogáxa]
	3	*erg-aha*	[ɛɾgáxa]
PL	1	*mif-aha*	[miɸáxa]
	2	*yu(a)-aha*	[juáxa]
	3	*eri-aha*	[ɛɾiáxa]

The morphological composition of the reflexive pronouns includes a personal pronoun plus a suffixal part *–aha* 'RX', the origin of which may be a fragment of the noun *efega* 'body' or the intransitive verb *ebah* 'live', which frequently appears in the abbreviated form *-ah* when forming a noun compound, such as *eteyj(a)-(eb)ah* (eye-live) 'life' or

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[40] The first person singular reflexive pronoun 'myself' has the alternate forms: *duah ~ difeke ~ edefa.* The first form *duah* may have survived from an earlier paradigm, before the present form of the first person singular pronoun. The form d*ifeke*, may mean something like 'me too', since *eke* 'ENUM' is the morpheme used in making lists. And *edefa,* a fossilized form, from a time when the pronominal prefixes had a VC phonological shape, and attached to *–ef* 'near' formed the first person singular pronoun. The prefix *ed-* '1SG' occurs on some kinship terms. None of the other reflexive pronouns have alternate forms.

mar-(*eb*)*ah* (thing-live) 'insect'. The final vowel /a/ in personal pronouns *bua*, *ofa*, and *yoga* elides when the suffix is attached.

A reflexive pronoun may function as the object of a transitive verb, such as *ofaha* in (13), or as the object of a preposition, that is, as a peripheral argument, such as *eriaha* in (14). The reflexive may only have the subject argument of the clause as its antecedent.

(13)   *Ofa*   *edem*   **ofaha,**   *esha*   *méesa*   *i-em-ek*   *ofa.*
          s/he   hide   3SGRX   from   enemy   3PL-IRR-see   s/he
          'He hid himself, because the enemy would see him.'   [T27]

(14)   *Eri*   *i-oyna*   *mar-mosorn(a)*   *edeses*   *ni*   **eriah(a)**.
          they.PL   3PL-cook   thing-hunger   many   for   3PLRX
          'They cook lots of food for themselves.'   [D]

Reflexive pronouns may function as a reflexive possessive with a meaning like 'one's own (self)', such as *buaha buduy* in (15) meaning 'one's own front', or *ten buaha* in (16) meaning 'for one's own benefit' or *ah gug yergaha* in (17) which indicates 'is their own'

(15)   *Bua*   *bi-esah*   *mar*   *no-ma-i*   *oromn(a)*   *jena*   **buaha**
          you.SG   2SG-put   thing   DNR-that-GIV   according   precise   2SGRX

          bi-oduy   *ejgen.*
          2SG-front   know
          'Put the stuff precisely according to your own desire (wherever you want).' [D]
          (front knows = wills)

(16)   *Dif*   *di-odu*   *mar*   *ten*   **buaha**.
          I   1SG-tell   thing   BEN   2SGRX
          'I told it for your own benefit.'   [D]

(17)   *Bua*   *bi-eyta*   *mar*   *no-ma-i*   *edak,*   *esha*   *mar*   *no-ma-i*
          you.SG   2SG-take   thing   DNR-far-GIV   NEG.DEON   from   thing   DNR-far-GIV

          ah   *gug*   **y-ergaha**.
          lie   to   DU-3DURX
          'You shouldn't take that, because the thing is their (two) own (belongs to them).'
                                                                [D]

The reflexive pronouns also have an emphatic function, such as *ofaha* reiterates the object argument *of-es* 'him' in (18).

(18)   *edá   i-em-ofra   of-es,   **ofaha**,   (tin)ogura.*
       then   3PL-IRR-lift   s/he-male   3SGRX,   but.not
       'then (they) would have lifted (kidnapped) him, himself, but it didn't happen.'

<div align="right">[T18]</div>

In order to resolve the referential competition between two participants competing for the same pronoun, the reflexive pronoun *ofaha* '3SGRX' is used in discourse to distinguish between two main participants. The primary or higher ranked participant is referred to in the narrative as *ofaha* 'himself/herself', while the secondary participant continues to be referred to with the third person singular personal pronoun *ofa* 's/he'. In (19) the participants *Yom* and *Ijisir* are both mentioned in the first sentence. In the second sentence, *ofaha* refers to *Ijisir*, who is the "winner" at the end of the story.

(19)   *Edá,   Yom   em-owra   eyja   ek   mek   efem   no-ma-i,   tiná   Ijisir*
       then   Yom   IRR-cross   go   see   pig   nest   DNR-far-GIV   but   Ijisir

       *ohur.   Eber   edá,   **ofaha**   eciga   men-es(if)   eyja   em-ah   jig*
       deceive   complete   then   3SGRX   get.up   day-open   go   IRR-lie   LOC

       mek   efem=mis-i.
       pig   nest=former-GIV
       'Then, Yom would cross over [and] go [and] see the pig's burrow, but Ijisir had tricked (him). After that, himself (Ijisir) got up at dawn [and] went [and] would have laid down in the pig's burrow.'   [T6]

5.1.4 Exclusive pronouns

The exclusive pronouns are composed of a pronominal prefix, indicating person and number of referent, attached to what appears to be a fused form of the verbs *esis* 'exclude' and *ok* 'bear', producing a new lexical item *esisok*[41], which has the meaning '(be) alone' or 'by one's self', glossed in examples as EXPN. The pronominal prefixes attaching to the exclusive pronouns are identical to the prefixes which index subject on verbs and possessor on inalienable nouns. They are distinctive, in that they are the only pronouns with person-number prefixes.

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[41] Alternate forms are *eysok ~ esisaok,* corresponding to common phonological variations as the alternation of [ɛ] and [ɛj] and possible inclusion of the paragoge –*a*.

The exclusive pronouns are:

SG	1	*di-esisok*	[disisɔ́k]
	2	*bi-esisok*	[bisisɔ́k]
	3	*ø-esisok*	[ɛsisɔ́k]
DU		*y-esisok*	[isisɔ́k]
PL	1	*mi-esisok*	[misisɔ́k]
	2	*yi-esisok*	[jisisɔ́k]
	3	*i-esisok*	[isisɔ́k]

Exclusive pronouns may occur following a subject noun or pronoun, such as *disisok* follows *dif* in (20), or *esisok* follows *ofa* in (21).

(20) *Dadin   i-osnok   romreg i-eyja   jig kota, tiná dif **di-esisok** erá*
      1SGPOS   3PL-person all   3PL-go   LOC town   but   I   1SG-EXPN   THM

      di-eker.
      1SG-sit
      'My relatives all went to the city, but I alone stayed.'   [D]

(21) *Ejena   no-ma-i,   ofa   **esisok** owha   jig   maeken(a).*
      woman   DNR-far-GIV s/he EXPN   leave LOC   garden
      'The woman, she alone went to the garden.'   [T17]

As the complement of the generic locative *jig* 'LOC', as in (22), it has the meaning 'by ones self', indicating 'remaining apart'.

(22) *Efer   no-ma-i,   ofa   ebah   jig   **esisok**.*
      child   DNR-far-GIV s/he live   LOC   EXPN
      'The kid, he lives alone/by himself.'   [T27]

5.1.5 Pronominal prefixes

The pronominal prefixes distinguish three degrees of number: single, dual and plural, but have an asymmetrical presentation in distinguishing person. The single and plural categories distinguish three persons, but in the dual category, the forms have conflated to *y-* 'DU', thus persons are not distinguished. A noun phrase or a personal pronoun, such as *ergog* 'they.DU' in (23), is necessary to distinguish person.

(23) *ergog   **y-ebah** jig   mod   erg-es*
      they.DU DU-live   LOC   house NUM:1-one
      'they lived in one house'   [T5]

Third person singular is marked with Ø, a null morpheme. This type of situation is common cross-linguistically, as third person refers to non-participants in the speech act (Foley & Van Valin 1985:288). The pronominal prefixes are:

SG	1	*di-*
	2	*bi-*
	3	Ø
DU		*y-*
PL	1	*mi-*
	2	*yi-*
	3	*i-*

The pronominal prefixes occur on verbs and inalienable nouns. They obligatorily index subject on verbs functioning as a predicate, such as *mi-* '1PL' attached to *owha* 'leave' in (24a) and *bi-* '2SG' attached to *ek* 'see' in (24b). They signal the person and number of the possessor on inalienable nouns, such as *di-* '1SG' attached to *ebir* 'head' in (25a) or *i-* '3PL' attached to *osum* 'nose' in (25b). And they inflect adjectival and definite quantifier verbs to agree with the person and number of a nominal referent, such as *i-* '3PL' prefixed to *ofogog* 'evil' in (26a) and *i-* '3PL' attached to *ergom* 'three' in (26b).

(24) a.   *mi-owha*   [múwxa]   b.   *bi-ek   mar*   [bik]
           1PL-leave   2SG-see   thing
           'we leave.'   'You see.'

(25) a.   *di-ebir*   [dibír]   b.   *i-osum*   [usúm]
           1SG-head   3PL-nose
           'my head'   'their noses' (faces)

(26) a.   *i-osnok   i-ofogog*   [uɸógoɡ]   b.   *i-erg-om*   [ɪrgóm]
           3PL-person 3PL-evil   3PL-NUM:1-three
           'evil people'   'three (humans)'

Morphophonemic processes affecting the pronominal prefixes are discussed in §2.5.

5.1.6 Pronominal circumfix

The reciprocal marker *em- -ima* '(to/with/from) each other' is a split morpheme. It attaches to a transitive verb and is composed of a prefixal part *em-* and a suffixal part   – *im(a)*, functioning together to refer to a reciprocal object argument, as in (27), or a reciprocal peripheral argument, as in (28). The circumfix may also refer to nonhuman entities, such as *ofonga* 'tendril' in (29). The reciprocal circumfix may replace the reciprocal pronoun *mogum* 'each other', but the circumfix and the reciprocal pronoun *mogum* do not co-occur.

(27) *Mif   mi-**em**-emk(a)-**ima**.*   [mimɛ́mkɛma]
      we.PL 1PL-RECIP-poison
      'We poisoned each other.'   [T15]

(28) *Eri   i-or   i-etma mar-m-osorn   i-**em**-er-ost(a)-**ima**   esebra.*
      they.PL 3PL-hold 3PL-arm thing-NR-hunger 3PL-CAUS-RECIP-thrust continuous
      'They constantly passed food to each other with their hands.' (hunger thing
      = food)   [T9]

(29) *Ofonga   **em**-eregejg-ejg(a)-**ima**.*   [ɛmɛrɛgɛd͡ʒgɛ́d͡ʒgɛma]
      tendril   RECIP-surround-RED
      'The tendrils wrapped around each other.'   [T29]

5.1.7 Indefinite pronouns

A number of words taken from other classes may function as indefinite pronouns. The
question word *ida* 'who' may be used as an indefinite pronoun meaning 'whoever', as in
(30).

(30) **Ida**   *noga i-oduy   os-os   ni   orot   eri-a..*
      who   REL   3PL-front move.horiz.-RED   for   go.with they.PL-PGE
      'Whoever that wants to go along with them ...' (front move.horiz. = want)
                                                      [TT]

The indefinite quantifier *enia* 'some other'*,* which functions as a modifier in noun
phrases, as in (31), may also function as an indefinite pronoun. It may fill the position of
a verbal argument, such as subject, as in (32), or it may be relativized as object, as in
(33). The referent may be animate or inanimate. The indefinite quantifier *enia* 'some
other' begins with a non-high vowel, like the verbs, but takes no affixation, contrasting
with the Meyah cognate *eneya* 'some' (Gravelle 2004:89) which takes pronominal
prefixes agreeing with the person-number category of the nominal referent.

(31) *Efer   no-ma-i,   ofa ahr-ahra   rot   i-osnok   **enia**.*
      child   DNR-far-GIV   s/he associate-RED about 3PL-person some.other
      'The child is friendly with some other people.'   [D]

(32) *edá   **enia**   i-ahamow tum   gijga.*
      then   some.other   3PL-vomit onto   only
      'then some others (of them) just vomited.'   [T9]

(33) *edá   bua   bi-et   noga **enia**.*
      then   you.SG 2SG-eat REL   some.other
      'then you eat some of the other ones.'   [D]

The contrastive indefinite specifier *erg-em* (NUM:1-CST) '(an)other (one)', which contrasts the referent with like entities (§4.2.6.2), may stand in the position of the head noun, functioning as an indefinite pronoun when the head is omitted, as the referent may easily be retrieved from the context. It has a meaning like 'whoever' in (34) or 'other' in (35).

(34)   ***i-erg-em***   *i-es(is)ok jera   ofon   mohena dokun   ofon*
       3PL-NUM:1-CST 3PL-EXPN with   3SGPOS wife   and   3SGPOS

       i-eferiok   romreg
       3PL-sm.child   all
       'whoever was alone with his wife and all his small children'   [T3]

(35)   *Ofa ocot   **i-erg-em***   *i-efena   ruruy   gug   i-osnok   susuy.*
       s/he (re)count 3PL-NUM:1-CST 3PL-spirit   unrestrict. to   3PL-person other.kind
       'He recounted unrestrictedly (gossiped about) others' character to outsiders.' [D]

5.2 Spatial deixis

The spatial deictics form a distance-oriented system, in which the middle deictic specifies a distance which is a bit farther from the speaker than the proximal deictic. They designate spatial location relative to that of the speech event, that is, they mark horizontal distance from the speaker. The spatial deixis system distinguishes the four parameters: (a) distal, with a three-way distinction; (b) elevational with two parameters 'across' and 'up'; (c) directional, specifying motion or position towards and away from deictic center, and (d) visibility, either visible or non-visible.

5.2.1 Spatial enclitics

The spatial enclitics distinguish three degrees of distance from deictic center: close to speaker, farther from speaker, and remote from speaker. The spatial enclitics are:

>   *-ef ~ -ka*   'near'
>   *-ma*   'far'
>   *-mej* [42]   'remote'

The spatial clitics *-ef* 'near' and *-mej* 'remote' have spatial functions only, while the enclitics *-ka* 'near' and *-ma* 'far' also have textual functions (cf. §5.3.1).

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[42] Although brief consideration was given to parsing *–mej* as *–ma* and *–ej*, there is no evidence that there are truly two morphemes present. The final two segments of the morpheme do not occur elsewhere in the spatial deixis system, nor is there evidence that *–mej* is a nominalized form, prefixed with *m-* 'NR'. The same reasoning applies to the third degree textual morpheme *–mis* 'former'. Therefore, the third degree of spatial distinction, as well as, the third degree of textual distinction will be treated as single morphemes.

Spatial enclitics may attach to verbs, such as *–ka* 'near' attached to *éysaha* 'reach' in (35), *-ma* 'far' attached to *ebah* 'live' in (36), or *–mej* 'remote' attached to *ebisa* 'cry' in (37). As locative adverbs, they may be glossed 'here', 'there', and 'yonder' respectively.

(35)   *Eri   i-en-éysaha=**ka**.*   [inɛnésaxaka]
        they.PL 3PL-DUR-reach=near
        'They are arriving here.'   [D]

(36)   *Mes   en-ebah=**ma**.*   [ɛnɛβáxma]
        dog   DUR-live=far
        'There is a dog there.'   [D]

(37)   *Y-ebisa=**mej**   erá   mar=ey?*   [jɛβísamɛd͡ʒ]
        DU-cry=remote   THM   thing-Q
        'Did you (two) yonder cry something?'   [T5]

Spatial clitics, such as *–ma* 'far' may also attach to a spatial relator noun, such as *okun* '(out)side' in (38) or *ogoh* 'base' in (39), or may attach to a locative adverb, such as *teraw* 'above' in (40).

(38)   *Merga   en-ah   okun=**ma**.*
        wood   DUR-lie outside=far
        'The stick was next to it there.'   [D]

(39)   *No-ma-i   en-ah   mers(a) ogoh=**ma**.*
        DNR-far-GIV   DUR-lie floor   base=far
        'It is under the floor (sleeping place) there.'   [T28]

(40)   *Mokaha   efca en-ah   jig   teraw=**ma**.*
        housefly   group DUR-lie   LOC   above=far
        'Swarms of flies were above there.'   [T29]

5.2.1.1 Spatial compound *-kef*

The spatial enclitics *-ef* 'near' and *-ka* 'near' combine to form the proximal compound *–kef* 'here', realized phonetically as [kɛɸ]. Statistically, the compound has a much greater frequency than either of the individual enclitics and appears to be replacing the individual use of *-ef* 'near' or *-ka* 'near'. The spatial compound *–kef* will be given unitary treatment in subsequent discussion, as its meaning is not distinguished from its individual components, and will be glossed as 'here' rather than 'near=near'.

When functioning spatially the spatial compound *–kef* is cliticized the final element of the clause, such as the verb *ah* 'lie' in (41) or the nominalized contrastive specifier *mergem*

'other' in (42). When functioning textually as a determiner, it may be cliticized to the final element of the construction, such as attached to the verb *ah* 'lie' as the final element of the relative clause in (43) or attached to the adverbial *tok* 'specific location' as in (44).

(41) *ofa   ek, tiná   merga mesrohur owos   en-ah=kef.*
      s/he   see but   wood   k.o.tree   produce DUR-lie=here
      'she saw, but (unexpectedly) a *mesrohur* tree seedpod was here.'   [T7]

(42) *M-ok-era,   ofa   ot   jug   miy   ewet   m-erg-em=kef.*
      NR-sib.s.s.-old. s/he   stand against water semi-solid   NR-DET-CST=here
      'The older brother, he guarded the side of the river bank here.'   [T7]

(43) *Mod noga   en-ah=kef   roga, esha susuy   em-ah éra.*
      house REL   DUR-lie-here   first from other.kind IRR-lie NEG
      'This house is the one that was first, because there wasn't any other (before it).'   [D]

(44) *Bua   m-otusus   tok=kef   edak.*
      you.SG IRR-go.to.and.fro   spec.location=here NEG.DEON
      'Don't go back and forth [in] this spot here.'   [D]

5.2.1.2 Spatial clitics with generic spatial preposition

The spatial clitics may attach to the generic spatial preposition *jig* 'LOC', which operates as a vague location preposition, to form simple prepositional phrases, such as *jigef* in (45), *jigma* in (46) and *jigmej* in (47). The resulting form is a single phonological unit. The phonetic realization is presented in brackets.

(45) *Bua   bi-en   bi-ah   jig=ef.*   [d͡ʒikɛɸ]
      you SG 2SG-come   2SG-lie   LOC=near
      'Come [and] sleep at/on here.'   [T25]

(46) *Bua   bi-esah   mergej   jig=ma.*   [d͡ʒígma]
      you.SG 2SG-put   firewood LOC=far
      'Put the firewood at/on there.'   [T23]

(47) *Ofa   orka mar no-ma-i   jig=mej.*   [d͡ʒigmɛd͡ʒ]
      she   carry thing DNR-far-GIV   LOC=remote
      'He carried the thing at yonder.'   [T23]

Both variants of the proximal clitic may co-occur in the same sentence, such as *–ka* 'near' cliticized to the verb *ah* 'lie' and *–ef* cliticized to the generic preposition *jig* 'LOC' in (48).

(48)   *Mok   en-ah=**ka**   jig=**ef**.*
        bowl   DUR-lie=near LOC-near
        'The bowl is here at this place.'   [D]

5.2.1.3 Spatial nouns

The deictic nominalizer prefix *no-* 'DNR' attaches to the spatial clitics *-ka* 'near' (49), *-ma* 'far' (50), or *-mej* 'remote' (51) to form spatial nouns, which typically occur as the object of the generic preposition *jig* 'LOC', having a meaning like 'the place here' or 'the place there'. The deictic nominalizer also attaches to the proximal compound *–kef* 'here', as in (52). (The proximal clitic *–ef* 'near' is excluded, as *no-ef* forms the demonstrative pronoun *nef* 'which (one)').

(49)   *bua   bi-éysaha jug   dif jig **no-ka**-i   jog*
        you.SG   2SG-reach against I   LOC DNR-near-GIV   already
        'you already beat me to (the place) here'   [D]

(50)   *Ofa   esisga   i-osnok   toga   jig   **no-ma**.*
        s/he   ask.question 3PL-person different   LOC   DNR-far
        'He asked different people at the place there.'   [T29]

(51)   *Ofa   ororum jig   **no-mej**.*
        s/he   be.lost LOC   DNR-remote
        'He was lost (vanished) at the (place) yonder.'   [T7]

(52)   *Ergog y-ewer rudud   mif jig   **no-kef***
        they.DU DU-pass by   we.PL LOC   NR- here
        'They passed by us (at) this place.'   [T10]

The deictic nominalizer *no-* may also nominalize a temporal adverbial, such as *ecki* 'two days ago' in (53), occurring as the modifier of *kus* 'short span'.

(53)   *Dif di-en   fen   dadin   mowos kus   **no-ecki**   jog.*
        I   1SG-come from 1SGPOS village short.span DNR-two.days.ago already
        'I came from my village [on] the day before yesterday.'   [D]

5.2.2 Elevational roots

The elevational roots indicate two degrees of orientation, upwards and across, and are asymmetrical in presentation. The elevational root *-ba* 'across' indicates an area which is on the same horizontal plane as the speaker. The elevation root *–da* 'upward' indicates an orientation which is above the speaker. There is no elevational root indicating a downward orientation.

The elevational roots are:

>   *-ba*   'across'
>   *-da*   'up(ward)'

The elevational roots are morphologically distinct, in that they occur only with a visibility prefix, *i-* 'VIS' or *u-* 'NONVIS'. The word may function as a locative adverb, such as *ida* 'up there' in (54) or *iba* 'across there' in (55), or may be the complement of a locative preposition, such as *ibeyja* functioning as the complement of the preposition *had* 'toward' in (56), and *ubeyja* as the complement of *jig* in (57). The elevational roots do not co-occur with the spatial clitics.

(54)   *Isudga   eker   jig   ofon   Isudga   ofog   **i-da**.*
        Isudga   sit   LOC   3SGPOS   Isudga   mound   VIS-up
        'Isudga lived on his Isudga hill up there.'   [T27]

(55)   *Bua   bi-eyja   bi-osiom   had   **i-ba**.*
        you.SG   2SG-go   2SG-play   toward   VIS-across
        'Go [and] play (ball) toward [the area] across there.'   [D]

(56)   *Ofa   eyja   osiom   had   **i-ba**=eyj(a).*
        s/he   go   play   toward   VIS-across=THITHER
        'S/he went to play toward [the area] across there.'   [D]

(57)   *Ofa   edem   mar   no-ma-i   jig   **u-ba**=eyja.*
        I   hide   thing DNR-far-GIV   LOC   NONVIS-across=THITHER
        'She hid that thing at [the place] across there.'   [T29]

To indicate a downward orientation, the locative adverbs *tesi* 'below' or *gujga* 'beneath' must be used, as in (58).

(58)   *Ofa   ome-miy,   erogá   ebir   od   mogom   noga   ah*
        he   submerge-water hence   head   accid.strike   stone   REL   lie

        ***gujga**   u-mej.*
        beneath   NONVIS-remote
        'He dived in the river, so his head accidently struck a rock which lay on
        the bottom yonder.'   [T22]

5.2.3 Visibility prefixes

There are two prefixes which add the dimension of visibility to spatial clitics and elevational roots:

i-	'VIS'
u-	'NONVIS'

The deictic prefix *i-* 'VIS' indicates the object or event is located in a place visible to the speaker and hearer. The prefix *u-* 'NONVIS' indicates the location of the event is not visible to the speaker or hearer and extends to include locations which are mythical or hypothetical. A prefix for visibility may attach to a spatial clitic, such as *i-* attached to *–ef* 'near' in (59), or *u-* attached to *–mej* 'remote' in (60). A visibility prefix also may attach to an elevational root, such as *i-* attached to *–da* 'upward' in (61), or *–ba* 'across' in (62). The form **u-ef* does not occur, as it would involve contradictory features. These forms function as locative adverbs.

(59)   *Bua   bi-en   ok   **i-ef**   **i-en**.*
         you.SG   2SG-come   section   VIS-near   VIS-HITHER
         'Come to the area here.'   [D]

(60)   *Edá,   ergog   y-ahaw   rot   mog(a)   **u-mej**-a*
         then   they.DU   DU-descend   about   wall   NONVIS-remote-PGE
         'Then, they descended by the cliff face yonder.'   [T25]

(61)   *edá   oj   jig   miy   Kuka   efi   **i-da**=en   gijga.*
         then   descend.into   LOC   water   Kuka   liquid   VIS-up=HITHER   only
         'then he just descended into the water of the Kuka river up there.'   [T30]

(62)   *Bi-odos   dif   jig   mirok   ah   **i-ba**.*
         2SG-meet   I   LOC   jungle   lie   VIS-across
         'Meet me in the jungle [that is] out there.'   [T18]

5.2.4 Directional clitics

Directional clitics specify motion described by an action verb as proceeding toward or away from deictic center, which must be the speaker or a nearby point of reference. They appear to be grammaticalized forms of the motion verbs *en* 'come' and *eyja* 'go(to)' as former directional verbs in a serial verb construction. They may be glossed as 'toward the speaker's location/space' or 'HITHER' and 'away from the speaker's location/space' or 'THITHER'. The resultant words function as locative adverbs.

The directional clitics are:

> *-eyja*   'THITHER'
> *-en*   'HITHER'

The directional clitics may attach a visibility prefix, such as *i-* 'VIS' attached to *en* in (63), or *u-* 'NONVIS' attached to *en* in (64) and *eyja* in (65).

(63)   *Bua   bi-osra   **i-en**   jef-a!*   [in]
       you.SG   2SG-enter   VIS-HITHER   DEON-PGE
       '(you should) Come in here!'   [D]

(64)   *Bua   bi-osoka   **u-en**   bi-esta   mok   erg-em*
       you.SG   2SG-climb.up   NONVIS-HITHER   2SG-suck   pandanus   NUM:1-CST

       roga.
       first = PLEASE   [un]
       'Come up here [and] eat pandanus, please.' (out of sight of hearer)   [T5]

(65)   *Dif di-em-esta   mok   ewek   eweg-weg   mow*
       I   1SG-IRR-suck   pandanus   thickened   dribble-RED   land

       u-eyj(a)   [ud͡ʒ]
       NONVIS-THITHER
       'I would suck (eat) pandanus [so] the pulp dribbled (to) the ground there.' [T14]

The directional clitics may be attached to an elevational root, such as *en* attached to *–da* 'up' in (66), *eyja* attached to *–da* in (67), or *eyja* attached to *–ba* 'across' in (68).

(66)   *Ofa   oj   fen   i-**da**=en   gijga.*   [idɛ́n]
       s/he   descend.into   from   VIS-up=HITHER   only
       He just descended from above.   [T30]

(67)   *Bua   bi-esah marsa   ofor   jig mef   i-**da**=eyj(a)*   [idéd͡ʒa]
       you.SG   2SG-put game   dehydrated   LOC rack   VIS-up=THITHER
       'Put the dried game (meat) on the rack up there.'   [D]

(68)   *Merga   noga   orokec   erá   en-ot   i-**ba**=eyj(a).*   [ibéd͡ʒa]
       tree   REL   big   THM   DUR-stand   VIS-across=THITHER
       'The tree that is big is over there.'   [D]

In clauses which have a stative verb, such as the verb *ot* 'stand' which has an existential function in (68), the directional clitic retains the component of marking direction, but the

component of movement has bleached out, thus indicating the area facing towards or facing away from the location of the speaker.

The directional clitics may be prefixed by the generic nominalizer *m-* 'NR' to form the locative nouns *men* 'place HITHER' (69) and (70) and *meyja* 'place THITHER' (71) and (72) with meanings like 'to/at the place here' and 'to/at the place there'.

(69)   *Ofa   em-eyet   **m-en**   se.*   [mɛn]
       s/he   IRR-succeed NR-HITHER   certainly
       'He will follow (to the place) here for certain.'   [TT]

(70)   *Bua   bi-ofra mar no-ka-i   ofoj   enam **m-en**.*
       you.SG   2SG-lift thing DNR-near-GIV   end   half NR-HITHER
       'Lift half (side) the thing's end (to the place) here.'   [D]

(71)   *Ofa   eyja   ok   **m-eyj(a)**.*   [mé͡dʒa]
       s/he   go.to   section NR-THITHER
       'S/he went to the area (at the place) over there.'   [D]

(72)   *Bua   bi-eyja jig   tesi   **m-eyj(a)**.*
       you.SG   2SG-go   LOC   below NR-THITHER
       'Go below (to the place) over there.'   [T29]

A nominalized directional clitic, such as *meyja,* may be prefixed by a visibility marker, forming a word which functions as a locative adverb, as in (73) or (74).

(73)   *M-ok-era   oduk m-ok-esa   ot   jug   miy   ewet*
       NR-sib.s.s.-old.   order NR-sib.s.s.-yg. stand against water semi.solid

       *m-erg-em   **i-m-eyj(a)**.*
       NR-NUM:1-CST VIS-NR-THITHER
       'Older one sent the younger to guard the other bank of the river (to the place) there.'   [T7]

(74)   *(eri)   i-ed   most jig   miy Mac ewet   erg-em*
       they.PL 3PL-strike victim LOC   water Mac semi.solid NUM:1-CST

       ***i-m-eyj(a)**.*
       VIS-NR-THITHER
       'they struck victims on the other side of the Mac riverbank over there.' [T7]

5.2.5 Relativized spatial deictics

Relativized spatial deictics are formed when a spatial enclitic, elevational root or directional clitic is cliticized to the relativizer *noga*[43]*,* forming a headless non-verbal relative clause, a single phonological unit. A visibility prefix is required when a spatial deictic element is attached to the relativizer, such as the spatial enclitic *u-mej* 'NONVIS-remote' in (75), the elevational root *u-ba* 'NONVIS-across' in (76), or the directional clitic *u-eyja* 'NONVIS-THITHER' in (77). The phonetic realization is noted in brackets.

(75)   *Ofa   eyja   jig   **nog(a)=u-mej**.*   [nogúmd͡ʒ]
       he   go.to   LOC   REL=NONVIS-remote
       'He went to the place which was yonder.'   [D]

(76)   *Dif dadin   ayok   of(a)- ej   **nog(a)=u-ba**.*   [nogúba]
       I   1SGPOS   mother   she-female   REL=NONVIS-across
       'I my mother is her [the one] who is across there.'   [D]

(77)   *Edá, Armoda ah rot   jig   ofon   mod efeyw   no-ma-i*
       then   Armoda lie about LOC   3SGPOS   house immature   DNR-that-GIV

       *Armoda   efi   **nog(a)=u-eyj(a)***   [nogúd͡ʒ]
       Armoda   water   REL=NONVIS-THITHER
       'Then, Armoda laid down in her small house [on] the Armoda tributary which was over there.'   [T30]

The phonologically fused form functions attributively, modifying a nominal, such as *of-ej* 'her' in (76), but also functions as a nominal, filling the position of the object of a transitive verb, such as *eyta* 'take' in (78), as the complement of the generic locative preposition *jig* 'LOC', as in (79), or as a nominal predicate, as in (80).

(78)   *Bua   bi-eyta   **nog(a)=u-ba=eyj(a)**.*   [nogubéd͡ʒa]
       you.SG   2SG-take   REL=NONVIS-across-THITHER
       'Take the one which is over there.'   [D]

(79)   *Bua   bi-eyta mar no-ma-i   jig **nog(a)=i-ba**   gijga.*   [nogíba]
       you.SG   2SG-take thing DNR-far-GIV LOC REL=VIS-across only
       'Just take the thing at the place which is across there.'   [D]

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[43] The morpheme *no-* 'DNR' and the relativizer suffix *–ga* 'REL' combine to make the relativizer *noga* 'REL'. The relativizer suffix *–ga* does not occur independently of the demonstrative nominalizer *no-* 'DNR', therefore the entire word *noga* 'REL' will be glossed as though it were a single morpheme.

(80)   *Marog noga dif dadin   erá **nog(a)=i-da=eyj(a)**.   [nogidéd͡ʒa]
        arrow   REL   I   1SGPOS THM   REL=VIS-up-THITHER
        'The arrow which is my (arrow) is the one which is up there.'   [D]

5.3 Textual deixis

Perceptual space is mapped on to discourse space through the use of spatial deictics functioning textually. These deictics, functioning as demonstrative adjectives, refer to the spatial location and also delimit the object referred to by the noun, conveying a status of definiteness. In their textual function, the deictics may function anaphorically or situationally with reference to the speaker's space and time. For example, the phrase *mot nomisi* 'former night' as situational deixis may refer to 'yesterday evening' in a conversation between two people, or anaphorically in text, it may refer to a previous mention of 'night' in an earlier part of the discourse.

5.3.1 Textual clitics

The first and second degree spatial clitics *-ka* 'near' and *-ma* 'far' have an extended textual function, as demonstrative adjectives. The third degree of textual distance is expressed through the textual clitic *–mis* 'former', replacing the spatial clitic *–mej* 'remote' which is restricted to spatial reference. The clitic *–mis* 'former' has only a textual function, indicating a resumed thematic element. The textual clitics are:

      -ka   'near'
      -ma   'far'
      -mis[44]   'former'

5.3.1.1 Demonstrative clitics

As a demonstrative adjective, a textual deictic may modify the head noun in a noun phrase, cliticized to the last element of the noun phrase, such as *–ka* 'near' which modifies *mow* 'place' in (81), *-ma* 'far' which modifies *desa* 'village' in (82), *–mis* 'former' which modifies *mot* 'night' in (83), or the proximal compound *–kef* 'here' which modifies *ewes* in (84).

(81)   *Edá, mif mow=**ka** mi-or   mod efena.*
        then   we place=near 1PL-build house new
        'Then, we [of] this place constructed new houses.'   [T14]

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[44] The textual clitic *-mis* 'former', like the spatial clitic *-mej* 'remote', is a single morpheme. The form *–is* never occurs in any other context. The textual clitic *-mis* 'former' is possibly a reduced phrase composed of the spatial clitic *-ma* 'far' and the adverb *sis* 'past'.

(82) *I-osnok   i-erg-aha   noga   i-en-ebah   jig desa⁴⁵=**ma**-i?*
      3PL-person   3PL-NUM:1-QUAN   REL   3PL-DUR-live at   village=far-GIV
      'How many people are there who live in that village?'   [D]

(83) *Dif di-efifa   ni   mot=**mis**-a.*
      I   1SG-chilled   on   night=former-PGE
      'I was chilled last night.'   [D]

(84) *Ida   noga   en-ow   mow   ewes=**kef**-a?*
      who   REL   DUR-dig   land   cavity=here-PGE
      'Who is (the one) who is digging this hole?'   [D]

When a textual clitic modifies the head of a relative clause, it is attached to the final element of the relative clause, such as the clitic –*mis* 'former', modifying *ofa* 's/he', is attached to *mif* 'we.PL' in (85), or the clitic –*mis,* modifying *mar* 'thing', is attached to the verb *ohot* 'say' in (86).

(85) *Mif   mi-eyja   mi-okuc   gug   ofa   noga oduk mif=**mis**-i.*
      we   1PL-go   1PL-show   to   s/he   REL   order we.PL=former-GIV
      'We went to show (it) to him (the former one) who sent us.'   [T17]

(86) *Ofon   amoka-ir i-oduy   efi-fi   rot   mar   noga Agus ohot=**mis**.*
      3SGPOS   friend-PL 3PL-front liquify-RED about thing REL   Agus say=former
      'His friends were concerned about those things Agus had said.'
      (front liquify = be concerned)   [T29]

5.3.1.2 Demonstrative pronouns

The spatial clitics -*ka* 'near', -*ma* 'far', the textual clitic -*mis* 'former' and the spatial compound –*kef* 'here' are prefixed by the deictic nominalizer prefix *no*- 'DNR' to form the demonstrative pronouns:

no-ka	'this one'	[nóka]
no-ma	'that one'	[nóma]
no-mis	'that former one'	[nómis]
no-kef	'this one'	[nókɛɸ]

Demonstrative pronouns replace a noun, such as *nomi* 'that one' in (87) referring to an earlier participant which is renamed for clarity, and in (88) *nokef* 'this one' refers back to people recently mentioned.

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⁴⁵ The word *desa* 'village' is a borrowed term from Malay.

(87)   *Edá,* **no-ma-***i,*   *Ijisir, em-ah jig   mek   efem(a).*
      then   DNR-far-GIV   Ijisir   IRR-lie   LOC   pig   nest
      'Then, that one, Ijisir, slept in the pig's burrow.'   [T6]

(88)   **No-kef**   *i-en*   *i-ogow   mif.*
      DNR-here   3PL-come   3PL-chop   we.PL
      'These ones [people] came [and] chopped (killed) us.'   [T22]

Demonstrative pronouns may function attributively in a noun phrase, such as *noka* 'this one' modifies *mona* 'day in (89), *noma* 'that one' modifies *merga* 'wood' in (90) and *nomis* 'that former one' modifies the noun compound *mar okum* 'difficulty' in (91).

(89)   *Mona*   **no-ka**   *edá,   bi-odos   dif jig mirok   ah i-ba.*
      day   DNR-near   then   2SG-meet   I   LOC jungle   lie   VIS-across
      '[On] this day then, meet me at the jungle [which is] over there.'   [T17]

(90)   *Merga*   **no-ma**   *ah jug   mar   efeyu noga   oskaytok.*
      wood   DNR-far   lie   block thing plant   REL   small
      'The tree blocks the plantlife which is small.'   [T29]

(91)   *Ofa   oduy os-os   rot   ofjig eri   rot   mar*
      s/he   front move.horiz.-RED   about   help   they.PL   about   thing

      *okum   **no-mis**.*
      heavy   DNR-former
      'He wants to help them with that difficulty.' (front move.horizontally = want)
                                   [T29]

As in many Papuan languages, the demonstrative pronouns mark thematic entities rather than functioning as definite articles (cf. de Vries 2006:823). In the sentences in (92), in the first sentence *mogos* (snake) may be glossed 'a snake' or 'the snake', whereas *mogos nomi* (snake that) 'the snake' signals that it is a thematic participant in the subsequent sentences.

(92)   *I-osnok   i-ecira   jig   mowah, edá   eri   i-er-od*
    3PL-person 3PL-walk LOC   outside then   they.PL 3PL-CAUS-accid.strike

    mogos. *Edá, eri   i-osusuy.   Edá, eri   i-or-a   mitow,*
    snake   then   they.PL 3PL-startled then   they.PL 3PL-hold-PGE machete

    *edá   i-er-ah-a   **mogos   no-ma-i**   ogos. Edá, eri   i-ahac*
    then   3PL-CAUS-hack-PGE snake   DNR-far-GIV die   then   they.PL 3PL-tie

    mogos   no-ma-i.
    snake   DNR-far-GIV
    '[If/when] people travel in the forest, they (may) come upon a snake. Then, they
    are startled. Then, they take a machete, then hack up the snake [so] it dies. Then,
    they tie up the snake.'   [T4]

The proximal enclitic *–ef* 'near', when prefixed with the deictic nominalizer *no-* forms
the demonstrative pronoun *nef* [nɛɸ] 'which (one)', the vowel /o/ of the prefix eliding. In
(93), *nef* functions attributively in the first clause, modifying *mos* 'fish', and
anaphorically in the second.

(93)   *Dif di-ek   mos   ofombra terir   ni   di-ejgen   rot   mos*
    I   1SG-see fish   lungs   exactly for   1SG-know about   fish

    ***no-ef**-a   noga   oyf-omof dokun   **no-ef**-a   noga oskur-ah-a*
    DNR-near-PGE REL   good-RED   and   DNR-near-PGE REL   bad-INTS-PGE
    'I looked closely at the fishes' gills in order to know which fish was really good
    and which one was really bad.'   [D]

5.3.2   Deictic focus marker *e-*

The deictic focus prefix *e-* 'FOC' attaches to a deictic element as a means to highlight the
element, increasing its contrastiveness. This type of contrast is handled syntactically in
languages such as English with additional modifiers, such as 'very', as in 'this very
thing'. The deictic focus prefix may attach to a textual clitic, such as *–mis* 'former' in
(94), or *–kef* 'here' in (95), or to a demonstrative pronoun, such as *noka* 'this one' in (96),
noma 'that one' in (97) or *nokef* 'this one' in (98).

(94)   *Ofa   odu   mar   **e-mis**-i   orohuys(a)   se.*
    s/he   tell   thing FOC-former-GIV suddenly   certainly
    'He certainly told that very thing suddenly.'   [T29]

(95)   *Maw ojij=i-ef   ni   mot   **e-kef**.*
    sun   spiral.down=VIS-near for   night FOC-here
    'The sun is spiraling (going) down for this very night.'   [D]

(96)   *Dif dadin   pensil   **e-no-ka**-i.*
         I   1SGPOS   pencil   FOC-DNR-near-GIV
         'I my pencil is this very one.'   [D]

(97)   *ofa   ohot gug   ergog, esha efer   no-ma-i   erá,   yogyen efer*
         s/he   say   to   they.DU from child DNR-far-GIV THM   3DUPOS child

         ***e-no-ma**-i,   edá   em-edegejg(a) ni   y-em-ah   efer   no-ma-i*
         FOC-DNR-far-GIV   then   IRR-match.up   for DU-IRR-lie child DNR-far-GIV

         éra.
         NEG
         'he said to them, because the kid, [was] their very [own] child, then it wasn't
         appropriate for them to lie down with the kid.' (i.e. have sexual intercourse with
         him)   [T24]

(98)   *Buwun   i-efer   **e-no-kef**=ey?*
         2SG.POS   3PL-child   FOC-DNR-here=Q
         'Are these very (ones) your children?'   [D]

The deictic focus prefix *e-* 'FOC' may attach to the relativizer *noga*, marking a headless
relative clause for contrastive focus, such as the relative clauses *noga erirka* in (99) and
noguba in (100), which function as nominal predicates. A relativized elevational, such as
nogida in (101), functioning as the complement of a spatial preposition may also be
marked for deictic focus.

(99)   *Buwun   **e-noga**   erirk(a).*
         2SGPOS   FOC-REL   yellow
         'Yours is [the very one] which is yellow.'   [D]

(100)   *Dif dadin   m-ok-era   **e-nog(a)=u-ba**.*   [ɛnoɡúβa]
         I   1SGPOS   NR-sib.s.s.-old.   FOC-REL=VIS-across
         'I my older brother is [the very one] which is right over yonder.'   [D]

(101)   *Ofa   ot   jig mow ojnif   rud   **e-nog(a)=i-da**.* [ɛnoɡída]
         s/he   stand LOC land outer.limit against FOC-REL=VIS-up
         'He stands on the edge of the land against [the very one] right up there.'[D]

5.3.3 Known information suffix *–i* 'GIV'

Once an item has been introduced into a narrative or is assumed to be known to both
speaker and hearer, it is considered a known or given piece of information. The suffix *–i*
'GIV', which signals known information, may attach to textual clitics, such as *-ka* 'near'

in (102) or -*mis* 'former' in (103), and to demonstrative pronouns, such as *noka* 'this one' in (104) and *nomis* 'that former one' in (105). When the marker for known information –*i* 'GIV' is attached to the spatial clitics –*ka* 'near' or –*ma* 'far', the vowel of the spatial clitic is elided, yielding the phonetic forms [ki] and [mi] respectively.

(102) *Ofa   ohur   ohot e-**ka-i**,   Bua   bi-eyja.*   [ɛkí]
       s/he   deceive say   FOC-near-GIV   you.SG 2SG-go.to
       'He lied saying (specifically) this, "You go."' (direct quote)   [T6]

(103) *Ofa   eyja   em-ah   jig mek   efem=**mis-i**.*   [ɛɸέmisi]
       s/he   go.to IRR-lie LOC pig   nest=former-GIV
       'He went to lie down in the pig's nest.'   [T6]

(104) *Of(a)=es   no-ka-**i**   en   mar   esebra.*   [nokí]
       s/he-male   DNR-near-GIV   do   thing continuous
       'This guy works all the time.'   [D]

(105) *Efer noga Iwari ofon   **no-mis-i**,   ofa   ebisa esebra.*
       child REL   Iwari 3SGPOS DNR-former-GIV   s/he   cry   continuous
       'The (former) child which was Iwari's, he cried continuously.'   [T10]

The suffix for known information also occurs on relativized spatial deictics, such as the relativized elevational deictic *nogida* in (106).

(106) *No-ma-i   ogurá, tiná nog(a)=i-da-**i**   gijga.*   [nogídi]
       DNR-that-GIV   NEG   but   REL=VIS-up-GIV   only
       'That one no, but just the one which is up there.'   [D]

The noun *ok* 'section' (107) may also be affixed by –*i* 'GIV', when the referent is indicated by pointing or in the presence of speaker and hearer.

(107) *Bua   bi-esah   mar no-ma-i   jig   ok-**i**.*
       you.SG 2SG-put   thing DNR-far-GIV   LOC   section-GIV
       'Put the thing in the section [here].'   [D]

5.4 Temporal deixis

The notion of 'near-ness' or 'far-ness' in the spatial deictics can be extended to the temporal domain. The contextual time at which the utterance occurs, (i.e. the present), is the principle reference point for temporal deixis (cf. Frawley 1992:282). In Moskona the spatial expressions are imported directly into the temporal domain with no additional modification, such that sometimes it is impossible to distinguish between spatial and temporal function, such as the spatial clitic –*ma* 'far', attached to the verb *owha* 'leave' in

(108), can indicate a "there" not far from the speaker or a "then" not far removed from the present.

(108)   *Ofa   en-owha=**ma**.*
        s/he   DUR-leave=far
        'He was leaving there.'
        'He was leaving then.'   [T30]

The spatial compound clitic *-kef* 'here' is used in the temporal sense to mean 'now', as in (109). The spatial noun *nokef* 'this place' functions temporally to mean 'this time' or 'right now', as in (110). The spatial clitic *–ka* attached to the generic preposition *jig* 'LOC' in (111), is a constituent of a phrase in a temporal frame.

(109)   *Bua   bi-en   bi-ek   buwun   mes, esha en-ogos=**kef**.*
        you.SG 2SG-come 2SG-look 2SG.POS dog   from DUR-die=here
        'Come look at your dog, because it is dying now.'   [D]

(110)   *Maw edma   jog   e-**no-kef***
        sun be.visible already FOC-DNR=here
        'The sun is already out right now'   [T29]

(111)   *Sokomow **jig=ka**,   eri   i-orna i-em-ed-im(a)   rot   miy   okow.*
        beginning LOC=near   they.PL 3PL-man 3PL-RECIP-strike about cloth debt
        'Long ago [from] now, men fought each other over cloth indebtedness.'[T15]

The spatial deictic form *u-mej,* with a temporal meaning 'time remote' may point either forward to the future or backwards to the past from the event time. The presence of the nonvisibility prefix *u-* 'NONVIS' indicates that the reference is hypothetical or mythical, such as *umej* in (112) refers to the mythical past. The relativized form *nogumej,* modifying *ari* 'week' in (113), points to a future time.

(112)   *Sis   sokomow **u-mej**   erá,   jig miy Isudga*
        past   beginning NONVIS-remote THM   LOC water Isudga
        'Long long ago, on the Isudga River...'   [T27]

(113)   *Smen,   jig   ari   **nog(a)=u-mej**   erá,   dif di-owha.*
        maybe LOC   week REL=NONVIS-remote   THM   I   1SG-leave
        'Maybe, in a week which is later, I (will) leave.'   [D]

5.5 Non-deictic directionals

In addition to the deictic terms, there are other lexical units employed in Moskona to indicate location or direction. The three groups of terms are phrases for river direction,

phrases which indicate cardinal directions, and two nouns which refer to location in relation to a person's body.

5.5.1 Upstream and downstream

There are three non-deictic directionals which are oriented to river flow, *miy efej* 'upstream' ~ 'headwaters', as in (114), *miy egak* 'downstream' (115), and *miy owok* 'river delta', as in (116).

(114)   *Miy   fen   **miy efej**   no-ma-i   erá   eskeyra.*
       water   from   water upstream   DNR-far-GIV   THM   clear
       'The water from upstream is clear.'   [D]

(115)   *Eri   i-osok   jig   miyes   ni   i-ahaw   jig   **miy egak**.*
       they.PL   3PL-climb.up   LOC   dugout   for   3PL-descend   LOC   water   leg
       'They rode in a dugout to go downriver.'   [T27]

(116)   *Miy   or, erogá   mif mi-ewer   jig   **miy   owok(a)**.*
       water   ebb hence   we   3PL-cross   LOC   water   overflow
       'The river ebbed, so we crossed at the delta.'   [D]

5.5.2 Cardinal directions

Cardinal directions, which are an absolute frame of reference for indicating direction, are expressed as fossilized phrases, functioning as complements of prepositions. The expressions for cardinal directions utilize the sun's position in relation to landforms or to its position in the sky. North is expressed in the phrase *maw teraw* 'sun above', as in (117), or *maw okun* 'sun outside', indicating the sun's position in relation to the Arafak mountains which are north of Moskona territory. South is expressed in the phrase *maw tesi* 'sun below', as in (118), or *maw ewet* 'sun [on the] shore', indicating the sun's position with regards to the horizon or to the coast, as the area south of Moskona territory is coastal lowlands. East is expressed in the phrase *maw éysaha* 'sun appear', as in (119), referring to the sun's location at the time of its appearing. West is expressed in the phrase *maw esir* 'sun falls' or *maw eyorga* 'sun lowers' as in (120), referring to the sun's position at the time it goes down.

(117)   *Mesina   erá   ah   had   **maw teraw**.*
       Mesina   THM   lie   toward   sun   above
       'Mesina village is toward the north.'   [D]

(118)   *Miyega   erá   ah   had   **maw tesi**.*
       Miyega   THM   lie   toward   sun   below
       'Miyega village is toward the south.'   [D]

(119)   *Mesta   osok   had   **maw éysaha**.*
       moon   climb.up toward   sun   appear
       'The moon rose toward the east.'   [TT]

(120)   *Enia   fen   **maw eyorga**.*
       some.other   from   sun   lowers
       'Some others are from the west.'   [TT]

5.5.3 Location relative to position of body (Left and right)

The terms *orojuj* 'right.side' and *erga* 'left side' refer to the sides of the body of a person or animal and may not refer to an independent location relative to the orientation of the speaker or hearer. In (121) and (122), *orojuj* 'right side' modifies *etma* 'arm', meaning 'the arm/hand of his right side' or 'right hand'.

(121)   *Ofa   enu   eri   noga   i-oduy   er-ed   ofa   erá,   i-ot*
       s/he   choose   they.PL   REL   3PL-front   CAUS-strike   s/he   THM   3PL-stand

       *had   etma   **orojuj,**   tiná   eri   noga   i-oduy   omres   rot*
       toward   arm   right.side   but   they.PL   REL   3PL-front   fragile   about

       *ofon   ogá   erá,   i-ot   had   etma   **erga**.*
       3SGPOS   speech   THM   3PL-stand   toward   arm   left.side
       'He chose those who trusted him, they stood toward his right hand, but they who were uninterested in his message, they stood toward his left hand.'   [TT]

(122)   *Efer   no-ma-i,   ofa   or   etma   **orojuj**   noga   en-og*
       child   DNR-far-GIV   s/he   hold   arm   right.side   REL   DUR-write

       srad-efi=kef.
       document-leaf=here
       'That kid, he used [his] right hand [it is] [the one] that he is writing this letter [with].'   [D]

Chapter 6
Noun phrase

6.0 Introduction

Noun phrases are constructions which are headed by a noun or pronoun and may function as arguments of a verb in a verbal clause. In non-verbal clauses, they may serve as subject/topics or non-verbal predicates. Noun phrases do not form several distinct types to express possession, description or modification by a relative clause, rather all of these modifiers may occur in a single phrase type. The semantic roles of noun phrases are discussed in §8.3.

This chapter presents the structure of a noun phrase (§6.1), the various elements which may serve as head of a noun phrase (§6.2), and the elements and structures which may function as modifiers of a head noun (§6.3), and includes a discussion of conjoined (§6.4) and appositional noun phrases (§6.5).

6.1 Structure

Moskona is a left-headed language, meaning that the majority of the modifiers of a head noun occur to the right of the noun, concurring with observations by Foley (1998:513) and Reesink (2002a:28) who state that languages of the East Bird's Head are phrasally left-headed. The post-nominal order in Moskona, an SVO language with prepositions, is typologically consistent, as SVO languages are typically post-modifying (Givón 1984:189), as also are prepositional languages (Greenberg 1966:85). Post-nominal modifiers in Moskona are fixed and follow the general order: Adjective - Classifier - Numeral - Determiner, an order commonly found in many Papuan languages (Dunn, et al 2002:58, Reesink 1996:8, Greenberg 1966:87). The only modifier which may occur pre-nominally is the possessor, an order also found in other East Bird's Head languages, such as Sougb (Reesink 1998:622) and Meyah (Gravelle 2004:171). Moskona noun phrase constituents are given below with optional modifiers in parenthesis.

(possessor) Head (attributive) (quantifier) (relative clause) (specifier) (demonstrative)

Although theoretically there may be up to five modifiers in a noun phrase, it is rare for more than two to co-occur. The two modifiers may include a pre-nominal possessor with a post-nominal modifier, or two post-nominal modifiers. The only exception is a numeral with a required sortal classifier which may co-occur with an additional modifier. More commonly, in line with other Papuan languages, a single modifier is found.

6.2 Heads of a noun phrase

The head of a noun phrase, which minimally consists of a single noun, may be identified as a common noun (§3.1.1.1), such as the alienable noun *mod* 'house' in (1) or the inalienable noun *osum* 'nose' in (2), a generic noun which denotes a human (§3.1.3.1), such as *ejena* 'woman' in (3), a kinship term (§3.1.3.2), such as *miwera* 'older sibling of opposite sex' in (4), or a personal pronoun (§5.1.1), such as *eri* 'they.PL' in (5).

Common noun - alienable

(1)   *(mif)*   *mi-or*   **mod**   *eges*
         we.PL   1PL-build   house   high
         'we built high houses.'   [T13]

Common noun – inalienable

(2)   *Ofa*   *ofon*   **osum**   *etu.*
         s/he   3SGPOS   nose   stubby
         'He his nose is stubby.'   [D]

Generic noun denoting a human

(3)   *ofa*   *osotka*   *y-**ejena***   *no-ma-i.*
         s/he   marry   DU-woman   DNR-far-GIV
         'he married the (two) women.'   [T10]

Kinship term

(4)   *Ofa*   *egerna*   *gug*   *ofon*   **mi-ew-era**   *y-erg-ak.*
         s/he   hail   to   3SGPOS   1PL-sib.op.s.-old.   DU-NUM:1-two
         'She cried out to her two older brothers.'   [T25]

Personal pronoun

(5)   *edá*   **eri**   *no-ma-i*   *i-eker*   *rohog*   *erin*   *mod*
         then   they.PL   DNR-far-GIV   3PL-sit   place.departed.from   3PLPOS   house

         miy.
         water
         'then they stayed behind in their houses on the ground.'   [T14]

Compound noun

The head of a NP may be a noun compound (§3.1.4), such as *mow-ewet* (land-semi-solid) 'clay', *mar-mosorna* (thing-hunger) 'food', *efi-eteyja* (leaf-eye) 'vein' in (6), or *mok-*

estak (bowl-butt) 'cup' in (7). Noun compounds may be modified by the same number and type of modifiers as a simple head.

(6)　　**Mow-ewet**　　*ekena no-ma-i*　　*en* **mar-mosorna efi eteyja** *eke-kena.*
　　　　land-semi.solid　red　DNR-far-GIV　do thing-hunger　leaf eye　red-RED
　　　　'The red (brown) clay causes the eyes (veins) of the leaves to be brown.'
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　[D]

(7)　　*Bua*　*bi-ot*　**mok-estak**　*ahta*　*no-ma-i*　　*roga.*
　　　　you.SG　2SG-wash　bowl-butt　　black　DNR-far-GIV　first
　　　　'Wash the dirty cup first.'　　　　　　　　　　　　　　[D]

6.2.1 Headless noun phrases

When the head noun can be understood from the context, it may be omitted; thus its modifier may function as a substantive, standing in its position as an anaphoric pronoun, and the construction can function in ways that are typical of noun phrases, such as arguments of verbs or complements of prepositions (cf. Dryer 2004:43). These modifiers may be an adjectival verb, such as *ofom* in (8), an indefinite quantifier, such as *ognunui* in (9), a specifier, such as *ergem* in (10), a possessive pronoun, such as *buwun* in (11), a numeral, such as *eres* in (12), or a sortal noun classifier, such as *ibah* in (13).

(8)　　*Mafif ohosha metebka,*　*erogá* **ofom** *romreg esr-ogu*　*jig*　*mow.*
　　　　wind　shake　cashew　　hence ripe　all　　fall.freely LOC　land
　　　　'The wind shook the cashew tree, so all the ripe (fruit) fell to the ground.' [D]

(9)　　*Ofa*　*no-ma-i*　　*ogos jog,*　*tiná* **i-ognunui** *erá*　*i-efena*
　　　　s/he　DNR-far-GIV　die　already　but　3PL-many　THM　3PL-spirit

　　　　ebah　*ros.*
　　　　live　still
　　　　'He already died, but many are still alive.'　　　　　　　[TT]

(10)　　**Erg-em**　*esha, edá* **erg-em**.
　　　　NUM:1-CST　from then　NUM:1-CST
　　　　'After one (thing), then another (thing).'　　　　　　　[T27]

(11)　　*Mok noga dif dadin erá,*　*efega om-om-om*　　　*okuk* **buwun**=*kef.*
　　　　bowl REL　I　1SGPOS THM　body resemble-RED-RED　like　2SGPOS=here
　　　　'The bowl which I have, its body (shape) very much resembles this (one) of
　　　　yours.'　　　　　　　　　　　　　　　　　　　　　　　[D]

(12)   *Ofa   eyta   **er-es**   ni oked mar jig merga owos   no-ma-i.*
        s/he   take   NUM:4-one for chant thing LOC wood   produce DNR-far-GIV
        'He took one (seedpod) to speak magic words over the seedpod.'   [T27]

(13)   ***Ibah**   ciyja dokun **ibah**   ciyja romreg éysaha **ibah**   setka.*
        HUMAN five and HUMAN   five all   reach HUMAN   ten
        'Five (persons) plus five (persons) (in) all reaches (totals) to ten (persons).'[D]

Interrogative words may also stand in the position of the head, such as the demonstrative
pronoun *nef* 'which', functioning interrogatively, as in (14) where it is the complement of
the locative preposition *jig* 'LOC', or the interrogative word *midá* 'what', as in (15) and
(16) in which the interrogative word is the object argument.

(14)   *Bua   bi-esah   mar no-ma-i   jig   **nef**-a?*
        you.SG 2SG-put   thing DNR-far-GIV LOC   which-PGE
        'You put the thing in which (place)?'   [D]

(15)   *Bua   bi-en   **midá** noga rahu   erogá   bi-en-éysaha=kef?*
        you.SG 2SG-do what REL long.time hence   2SG-DUR-reach=here
        'What were you doing for so long so that you are arriving now?'   [D]

(16)   *Mes, eri   erá i-obra   **midá**   no-kef-a?*
        dog   they.PL THM 3PL-bark.at what   DNR-here-PGE
        'The dogs, they bark at what now?'   [T27]

6.3 Modifiers of a head noun

Various items may modify a head noun. All modifiers, except for the possessive pronoun,
occur post-nominal.

6.3.1 Possessors

Possessors may be a single noun, a personal pronoun or a noun phrase. The order of
possessor-possessed, which is the typical order of mainland Papuan languages (Dunn et
al. 2002:33), is the fixed order of the possessive phrase found in Moskona. Alienable
nouns, which utilize a syntactic possession strategy, will be presented first, followed by
inalienable nouns, which utilize a morphological strategy, but allow additional
pronominals to make prominent the possessor.

6.3.1.1 Alienable possession

Alienable nouns (§3.1.2.1) require a possessive pronoun (§5.1.2), such as *mifin* 'our.PL'
in (17), or *ergen* 'their.DU' in (18) to express possession, and are not inflected to agree

with the possessor. Personal pronouns, such as *dif* in (19), may optionally co-occur with possessive pronouns, making the possessor more prominent.

(17)   **Mifin**   *mowos*   *erá*   *ah* *esen*   *ros.*
        1PLPOS village THM lie distant still
        'Our village is still distant.'   [D]

(18)   *Ergog* *y-owha*   *jig* **ergen**   *mod.*
        they.DU DU-leave   LOC 3DUPOS house
        'They (two) left for their house.'   [T7]

(19)   **Dif dadin**   *eri-orna*   *i-ebah* *jig*   *mow* *no-kef*   *sis*   *jog.*
        I   1SGPOS they.PL-man 3PL-live LOC   land DNR-here   past   already
        'I my ancestors lived in this area previously.'   [D]

Generic nouns which denote humans (§3.1.3.1) are inflected for person and number of referent, not for possessor. A possessive pronoun is required to mark possession of these nouns, such as the possessive pronoun *ofon* '3SGPOS' indicates the possessor of the noun *efer* 'child' in (20).

(20)   *Ofa*   *ah*   *muy*   *ewet*   *gug*   **ofon**   *i-efer*   *ni* *et.*
        s/he hack sweet.potato semi.solid to   3SGPOS 3PL-child for eat
        'She chewed the sweet potato to mush for her children to eat.'   [D]

6.3.1.2 Inalienable possession

Inalienable nouns (§3.1.2.2) possessed by humans are prefixed with a person-number marker indexing the possessor, such as *di-* '1SG' prefixed to *etma* 'hand' in (21) or *i-* '3PL' prefixed to *efeg(a)* 'body' in (22). The pronominal prefixes which index possessor are identical to the prefixes which inflect verbs for subject (§3.2.1.1).

(21)   *Dif* **di-etma** *efer*   *efeyu*   *efsa* *erá,* *mek* *of*   *sis*   *jog.*
        I   1SG-arm sore   patterned white THM pig   bite   past   already
        'I the scar on my hand, a pig bit earlier.' (white patterned sore = scar) [D]

(22)   *Mocra* *en* *eri,*   *erogá* **i-efeg(a)** *egerag.*
        hunger do they.PL hence   3PL-body weak
        'Starvation struck them, so their bodies were weak.'   [T29]

Inalienable nouns possessed by nonhuman possessors are marked for third person singular possession with a null morpheme, as nonhuman nouns are treated as indeterminate of number. This includes nouns referring to objects closely associated with humans, such as *efer* 'sore' or 'wound' possessed by *etma* 'arm' in (21). The nonhuman possessors in possession constructions, such as *mek* 'pig' (23a), *mem* 'bird' (23d), *mes*

'dog' (23c) and *osum* 'nose' (23f), utilize the same possession strategy as third person singular human possessors, such as *ejena* 'woman' (23b) and *orna* 'man' (23e). All are part-whole expressions.

(23) a. *mek   ebir*   b. *ejena   ebir*   c. *mes   oyrega*
          pig   head   woman   head   dog   tail
          'pig's head'   'woman's head'   'dog's tail'

      d. *mem   efembra*   e. *orna   efembra*   f. *osum   ofon*
          bird   flank   man   flank   nose   tooth
          'bird's wing(s)'   'man's side'   'nose's tip'

This same structure is also used with spatial relator nouns (§3.1.2.2.2), some of which are body-part nouns, such as:

(24)   *mod   ejmeg*
        house spine
        'behind the house'

(25)   *moroj efembra*
        path   flank
        'side of the path'

(26)   *merga   orokec   ogoh*
        wood   large   base
        'base of the large tree'

In addition to the pronominal prefix marked on the inalienable noun, the possessor reference may redundantly include a personal pronoun, such as *dif* in (27), or a possessive pronoun, such as *ofon* in (28), or both, such as *mif mifin* in (29). The additional pronouns serve to focus attention on the possessor or express a discourse preference for thematization of a constituent.

(27)   **Dif di-egak** *efer-a,   erogá   di-ecira deci.*
        I   1SG-leg sore-PGE   hence   1SG-walk slowly
        'I my leg is sore, so I walk slowly.'   [D]

(28)   *Mes   **ofon**   **ecirf(a)**   ofog   er-ahka   di-owos.*
        dog   3SGPOS   fingernail   pointed   CAUS-scrape 1SG-skin
        'The dog his sharp claws scratched me.'   [D]

(29)   *Merah   et   **mif   mifin**   **mi-etma***.
        fire   eat   we.PL 1PLPOS   1PL-arm
        'The fire burned our arms.'   [T29]

A possessed inalienable noun, functioning as the head noun, may be modified by other modifiers which follow the head noun, such as the alienable noun *miyes* 'clothes' possesses the inalienable noun *efi* 'liquid' which is modified by the adjectival verb *ekena* 'red' in (30).

(30)   *Miyes* ***efi***   *ekena er-efta*   *miyes*   *noga efsa.*
         clothes   liquid red   CAUS-attach.to clothes   REL   white
         'The clothes' red liquid stains the clothes that are white.'   [D]

6.3.1.3 Noun phrase as possessor

The possessor may be referred to by a full noun phrase. The spatial relator noun *efembra* 'flank', translatable as 'side' in (31), is possessed by *mar noki* 'this thing', a nonhuman possessor, and so is marked with third person singular (a null morpheme). The head noun *mar* 'thing' is further modified by the nominalized contrastive specifier *mergem* 'the other one'.

(31)   *Bua*   *bi-ofra* ***mar*** ***no-ka-i***   *efembra*   *m-erg-em=mej.*
         you.SG   2SG-lift   thing   DNR-near-GIV   flank   NR-NUM:1-CST=remote
         'Lift this thing's other side yonder.'   [D]

If the head noun of the noun phrase is human, such as *i-osnok* 'people' in the noun phrase *i-osnok susuy* 'other kinds of people' or 'non-Moskona people' in (32), the possessed inalienable noun, such as *i-ofoms* '(the result of) their energy' or 'their wages', will be marked with a pronominal prefix agreeing with the referent. The third person plural possessive pronoun *erin* 'their' places the focus on the possessor.

(32)   ***I-osnok***   ***susuy***   *erin*   *i-ofoms(a)*
         3PL-person   other.kind 3PLPOS   3PL-energy
         'Outsider people's wages ...'   [D]

Possession noun phrases may occur recursively, that is, a possessed noun can itself be a possessor. But the number of possessors is usually no more than two. In (33) the inalienable noun *efej* 'hair' is possessed by another inalienable noun *ebir* 'head', which is in turn possessed by the noun *ayok* 'mother'. The inalienable body-part noun *ejmeg* 'spine' in (34) possesses the body-part noun *oforna* 'bone' yielding the meaning 'pig's back's bones'. The scope of the demonstrative *nomi* 'that' extends over the entire complex possession noun phrase. The phrase *oforna ejmeg* (bone spine), meaning 'bone's back', could also be construed to be locative, as in 'behind the bone' because *ejmeg* also functions as a spatial relator noun. However, in *oforna ofon ejmeg* (bone 3SGPOS spine) the ambiguity is eliminated by the optional possessive pronoun *ofon,* in addition to the fixed order possessor-possessed.

(33) *Efer no-ma-i   ohsud(a) mej fen **ayok ebir efej.***
      child DNR-far-GIV   search.for louse from mother head hair
      'The child looked for lice in (his) mother's hair.'   [TT]

(34) *Bua   bi-eyta   **mek ejmeg oforna** no-ma-i   gug dif.*
      you.SG 2SG-take pig   spine bone   DNR-far-GIV   to I
      'Give me the pig's back bones.'   [D]

Recursive possession may also occur with inanimate possessors, such as the topic noun phrase *marowok nomi* (vegetable that) in (35) is co-referent with the possessor of the subject, the generic noun *efi* 'leaf' which possesses the inalienable noun *ewes* 'core'.

(35) *Mar(ow)ok no-ma-i,   efi ewes ahta, esha mow ofor   ahta.*
      vegetable   DNR-far-GIV   leaf core black from land substance black
      'The vegetable (plant), its leaves are black (dark), because the land's substance
      (soil) is black (fertile).'   [T30]

6.3.2 Adjectival modifiers

Adjectives in Moskona are a subclass of intransitive verbs (§3.2.2.3.3), which may function attributively in a noun phrase and are inflected for agreement with the referent, using the same set of pronominal prefixes which indicate subject on verbs, such as the third person plural prefix *i-* on the adjectival verb *osmos* '(be) strange' in (36). An adjective modifying a nonhuman referent is marked with third person singular, a null morpheme, such as *orokec* which modifies *mod* 'house' in (37). A typical attributive noun phrase contains only one adjective, which immediately follows the head noun, followed by an optional demonstrative, such as the color adjectival verb *ekena* 'red' which modifies *orna* 'man' and precedes the demonstrative *nomi* 'that' in (38).

(36) *eri   **i-osmos**   noga i-ebah jig=kef*
      they.PL 3PL-strange   REL 3PL-live LOC=here
      'the strangers who live here'   [TT]

(37) *y-osok   jig   mod **orokec***
      DU-climb.up LOC   house large
      '(you) climb.up to the main house'   [T23]

(38) *Orna **ekena** no-m(a)-i   ecir(a) deci-ci.*
      man red   DNR-far-GIV walk   slowly-RED
      'The old man walks slowly.' (red man = elderly man)   [D]

If an adjectival verb follows a determiner in a clause, such as *ebga* 'torn' follows *nomi* 'that' in (39), the adjectival verb is functioning predicatively, as determiners in Moskona are clear markers of the boundary of a noun phrase.

(39)   *Mofun   no-ma-i   ebga   jog*
        vine   DNR-far-GIV   torn   already
        'The vine was already torn'   [T23]

Adjectival verbs modifying nouns may be intensified by reduplication, such as *ebgibga* 'very torn' in (40) or by the suffix *–ah(a)* 'INTS' modifying *oskur* 'bad' in (41).

(40)   *Mar   no-ma-i   erá   kertas*[46]   ***ebg(a)-ibga***.
        thing   DNR-far-GIV   THM   paper   torn-RED
        'That stuff is very torn paper (trash).'   [D]

(41)   *I-osnok   noga   i-en   mar   **oskur-ah** ...*
        3PL-person   REL   3PL-do   thing   bad-INTS
        'People who do very bad things...'   [TT]

Head nouns rarely have more than one adjectival attribute. If a noun must be qualified by more than one adjective, they are distributed over the phrase. The relative clause is the grammatical recourse employed if more than one adjectival modifier is necessary. The one which has the more inherent quality will be used attributively and the other relativized, such as *oforga* 'hardened' is used attributively and *orokec* 'large' is relativized in (42).

(42)   *Eri   i-or   merga   **oforga**   [**noga orokec**]   ni   i-er-or   mod.*
        they   3PL-hold   wood   hardened   REL   large   for   3PL-CAUS-build   house
        'They built the house with large hardened (mature) trees.'   [T29]

6.3.3 Nominal modifers

The head of a noun phrase may also be modified by a few nominals which immediately follow the head noun. However, nouns which function attributively are restricted to alienable or proper nouns. As mentioned in §3.1.2.2, inalienable nouns which follow a noun are in a possessor-possessed relationship. The structure of noun + noun in a noun phrase differs from a noun compound with the internal structure of noun + noun in two ways. In a noun compound (§3.1.4), the second member combines with the first to form a single lexical item, whereas in a noun phrase the second noun functions attributively to narrow the referential scope of the head noun. The second member of a noun compound may not be relativized, whereas a nominal modifier may be relativized and retain the same meaning. In each of the examples in (43), the nominal modifier may be relativized, such as the noun phrase *eri Morum* in (43 a) has the same meaning as *eri noga Morum* (they.PL REL Kebar) 'Kebar people', or *mofun miosinga* in (43 d) may be *mofun noga miosinga* (vine REL ratan) 'vine which is ratan', and so on.

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[46] The noun *kertas* 'paper' is a Malay word.

(43)   a.   *eri*   *Morum*   'Kebar people/tribe'
              they.PL   Kebar

        b.   *eri*   *Mosmir*   'Maybrat people/tribe'
              they.PL   Maybrat

        c.   *eri*   *Mosurs(a)*   'Hatam people/tribe'
              they.PL   Hatam

        d.   *mofun*   *miosing(a)*   'ratan vine'
              vine   ratan

The nouns *manir* 'leader' (44a) and *meren* 'lake' (44b) may be used attributively, focusing on the component of great size or proportion.

(44)   a.   *merga*   *manir*   'huge tree'
              wood   leader

        b.   *i-osnok*   *meren*   'multitude of people'
              3PL-person lake

If a nominal and adjectival modifier co-occur, the adjectival may be relativized, as in (45). The construction **mofun orokec noga miosing* (vine large REL rattan) is non-acceptable.

(45)   *Ofa ohsud(a) mofun   miosing(a)   noga orokec..*
        s/he search.for vine   rattan   REL   large
        'He searched for a rattan vine which was large ...'   [T30]

A few noun phrases which border between phrases and compounds (indicated with brackets) may also function attributively, as does *Mod Ari* 'church' in (46), *orna miyahta* 'rich man' in (47), *miy mefsa* 'saltwater' in (48), and *mosu ejena* 'big mother' or 'large primary (one)' in (49).

(46)   *I-osnok*   [*Mod Ari*]   *no-ma-i*   *erá*   *i-eg*   *mar....*
        3PL-person   house Sunday   DNR-far-GIV   THM   3PL-hear   thing
        'The church people heard the thing....'   [D]

(47)   *Efer* [*orna miyahta*] *no-ma-i*   *ofon*   *mohena*   *ciyja.*
        child man   rich   DNR-far-GIV 3SGPOS wife   five
        'The rich guy has five wives.' (colloquial usage: *efer* = 'guy')   [D]

(48)   *mos*   [*miy   m-efsa*]
    fish   water   NR-white (salt)
    'saltwater fish'   [T29]

(49)   *miyefen* [*mosu   ejena*]
    money   mother   woman
    'large quantity bills'   [D]

6.3.4 Quantifiers

The quantifiers which modify a head noun may be definite or indefinite. The definite quantifiers are the numerals and noun-numeral constructions. The indefinite quantifiers are indefinite quantifier verbs. The definite and indefinite quantifiers may not co-occur.

6.3.4.1 Numeral modifiers

Numerals (§4.2) modifying a noun which does not require a sortal classifier may occur immediately following the head noun, such as *orum* 'three' immediately follows *mes* 'dog' in (50), or the numeral *ciyja erges* 'six' immediately follows *mona* 'day' in (51). If an adjective occurs, the numeral follows the adjective, such as the numeral *erfom* 'three' follows *ofusum* 'thick' in (52), or the numeral *erom* 'three' follows *ofom* 'ripe' in (53), modifying *megigra* 'pineapple'.

(50)   *Mes* **or-i-om**   *no-ma-i*   *i-et*   *mar* *oforna* *daka* *mes*
    dog   NUM:7-?-three   DNR-far-GIV   3PL-eat thing   bone   avert   dog

    enia.
    some.other
    'Those three dogs ate the bones away from some (other) dogs.'   [D]

(51)   *Mona* **ciyja** **erg-es**   *ah   jug*   *ni* ...
    day   five   NUM:1-one   lie   against   for
    there are six days before....   [TT]

(52)   *merga   owos   ofusum* **erf-om**
    tree   skin   thick   three
    'three thick (pieces of) bark'   [T30]

(53)   *Bua   bi-eyta   megigra   ofom* **er-om**   *gug efer   no-ma-i.*
    you.SG   2SG-take pineapple ripe   NUM:4-three   to   child   DNR-far-GIV
    'Give three ripe pineapples to the kid.'   [D]

6.3.4.2 Sortal noun-numeral constructions

The sortal noun classifiers (§4.2.5) denote properties of the entities they classify, and as such may occur as attributive modifiers. A sortal noun plus a numeral forms a sortal noun-numeral construction which may modify a head noun, such as *efi tahgur* 'LEAF four' modifying *kertas* 'paper' in (54), *efega orum* 'ANIMAL' three' modifying *mek* 'pig' in (55), or *owos erak* 'VEG two' modifying *mebet* 'squash' in (56). The sortal noun-numeral construction immediately follows the head noun.

(54)   *Ofa   eyta   kertas   **efi**   **tahgur**   gug dif.*
      s/he   take   paper   LEAF   four   to   I
      'He gave me four sheets of paper.'   [D]

(55)   *Ofa   eskijig   ni   eyta   mek   **efeg**   **or-i-om**   gijga.*
      s/he   agree   for   take   pig   ANIMAL   CL:7-?-three   only
      'He agreed to give only three pigs.'   [D]

(56)   *Mebet   owos   **er-ak**   gijga   ah   jig   no-ma-i.*
      squash   VEG   NUM:4-two   only   lie   LOC   DNR-far-GIV
      'Only two squash were there.'   [T29]

Not all nominals are assigned to a noun class, such as *mem* 'bird', *ofuy* 'egg', and *mow* 'land'. Unassigned nouns, such as *mok* 'bowl' modified by *ergak* in (57), do not require a sortal classifier when modified by a numeral.

(57)   *Ofa ecka   mostebka   efej   jig   **mok   erg-ak**   gug yef.*
      s/he serve   bean   dried.out   LOC bowl   NUM:1-two to   we.DU
      'She served beans in two bowls to us.'   [D]

6.3.4.3 Indefinite quantifiers

The indefinite quantifier verbs (§3.2.2.3.4) are a subcategory of adjectival verbs, which may function attributively in a noun phrase, such as *ognunui* 'many (of same item)' modifies *motur* 'star' in (58). As constituents of a noun phrase, indefinite quantifiers occur following descriptive or resultative adjectivals, such as *edes* 'many (kinds of an item)' follows the adjectival verb *ofojoj* in (59). Indefinite quantifier verbs occur preceding determiners, such as *ahabnina* 'few' precedes the demonstrative *nomi* 'that' in (60).

(58)   *Dif   di-ek   motur   **ognunui**   ot   jig   meybaga*
      I   1SG-see   star   many   stand   LOC   sky
      'I saw many stars in the sky.'   [D]

(59)   *Miy   ejena   erá,   mogom ofoj-oj   edes-es   ah jug.*
     water woman THM   stone   blunted-RED many-RED lie against
     '[As for] the main river, many boulders obstructed it.'   [D]

(60)   *marog   **ahabnina** no-ma-i*
     arrow   few   DNR-far-GIV
     'those few arrows'   [T30]

6.3.5 Relative clauses as modifiers

A relative clause, introduced by the relativizer *noga* 'REL', is a restrictive modifier of a head noun. It differs from other modifiers, in that it is an embedded clause. Relative clauses, because they are a type of subordinate clause, are discussed separately in §10.1. Relative clauses serve to make a modifier prominent, such as the indefinite quantifier verb *ognunui* in (61) or allow nominals, such as *muren ekena* 'adult person' in (62) to modify a head noun.

(61)   *Ergog   y-er-en   midohes   [**noga ognunui**].*
     they.DU DU-CAUS-do doorway   REL   many
     'They made doorways which were many.'   [T19]

(62)   *eri-(e)j-a   [**noga murenekena**]*
     they.PL-female-PGE REL   adult.person
     'women who are (fully) adults'   [T14]

As a constituent of the noun phrase, a relative clause may be preceded by an adjective, as the relative clause *noga enah jig mer nomi* follows the adjectival verb *ahtukwi* 'dirty' in (63), or it may be preceded by a quantifier, such as the numeral *yergak* precedes the relative clause *noga owoka Ejameren dokun Eyjanus* in (64).

(63)   *Ofa em-ek   mar ahtuk-wi [**noga en-ah   jig mer no-ma-i**]   éra.*
     s/he IRR-see thing dirty-DIM REL   DUR-lie LOC room DNR-far-GIV   NEG
     'She didn't see the rather dirty things which were in the room.'   [D]

(64)   *.. dokun ofon   mohena y-erg-ak   [**noga owoka   Eyjameren dokun***
     and   3SGPOS wife   DU-NUM:1-two REL   name   Eyjameren and

     ***Eyjanus**]'*
     Eyjanus
     '..and his two wives who their names were Eyjameren and Eyjanus'   [T24]

A relative clause precedes a demonstrative, which as the final modifier in a noun phrase signals the inclusion of the relative clause in the noun phrase, such as the relative clause

noga ergog yemejgeftima rot precedes *nomi* 'that' in (65) or in (66) the relative clause
noga bua bita gug mif precedes the demonstrative *nokef* 'this'.

(65)   *Mar* [***noga ergog   y-em-ejgeft-ima rot***] *no-ma-i   erá*
        thing REL   they.DU   DU-RECIP-argue   about DNR-far-GIV   THM

        ebra   kuk   esebra.
        spread.over along   continuous
        'The thing which they argued about increased on and on.' (spread over along =
        increase)   [D]

(66)   *Mar* [***noga bua   bi-eyta gug mif***] *no-kef   erá   romreg*
        thing REL   you.SG   2SG-take to we.PL DNR-here   THM   all

        edemejgema.
        equal
        '(As for) these things which you gave to us (they) are all equal.'   [TT]

Two relative clauses may modify the same head noun within a single noun phrase. In (67)
the relative clauses *noga meren* 'which were many' and *noga ergog yeyj mofga skod eri*
'who they sent invitations to' modify the same head noun *isnok* 'people'. The
demonstrative *nomisi* is the final modifier in the noun phrase.

(67)   *Ergog   y-eseki mersa ni i-osnok   [**noga meren**] [**noga ergog   y-eyj***
        they.DU DU-fix   floor for 3PL-person REL   lake   REL   they.DU DU-toss

        mofga   skod eri]   *no-mis-i.*
        palm.rib   to   they.PL DNR-former-GIV
        'They prepared the (dancing) floor for the multitude of people to whom they had
        sent invitations.' (toss palm rib = invite)   [T9]

6.3.6 Specifiers

A head noun may be modified by a specifier. Specifiers, as mentioned in §4.2.6, are not
indefinite articles, but serve to introduce new thematic items into the discourse or to
contrast existing ones. The contrastive specifier *etem*, as the single modifier of the
inalienable noun *ofuy* 'egg' in (68), contrasts it with a known item.

(68)   *Mem ok   ofuy   **et-em***.
        bird bear egg   NUM:3-CST
        'The bird laid another egg.'   [D]

As constituents of a noun phrase, specifiers may occur following adjectival verbs, such as
the contrastive specifier *ergem* 'another' follows the adjectival verb *oskok* 'very small' in

(69). They may also occur following a relative clause, such as the indefinite specifier *erges* in (70) and contrastive specifier *ergem* in (71) follow a relative clause. Specifiers occur preceding demonstratives, signaling their inclusion in the noun phrase, such as the contrastive specifier *ergem* precedes the demonstrative *nomi* in (72). Specifiers do not co-occur with numerals or indefinite quantifiers.

(69)   *Ofa   éysaha kerenga memega   osk-ok   erg-em.*
       s/he   reach   upon   mountain small-RED NUM:1-CST
       'He happened upon another very small mountain.'   [T27]

(70)   *Miy   [noga orokec] erg-es,   ofa er-ofra   osum ohga   rot.*
       cloth REL   large   NUM:1-one s/he CAUS-lift nose forefront about
       'A cloth which was large, he deposited up front [as payment] for it.'   [T23]

(71)   *Bua   bi-eyta meni   ofog   [noga i-oyna   jig mitos no-ma-i]*
       you.SG 2SG-take banana cooked REL   3PL-cook LOC pot   DNR-far-GIV

       erg-em   gug   dif.
       NUM:1-CST to   I
       'Give me one of the bananas which was cooked in that pot'   [D]

(72)   *Merah fen   mod erg-em   no-ma-i   er-efta   mod   susuy*
       fire   from   house NUM:1-CST DNR-far-GIV CAUS-attach.to house other.kind

       tas.
       again
       'Fire from one of those houses spread further to other houses.'   [D]

The noun phrases *osnok erges* (person one) (73) or *ofa erges* (s/he one) (74) can function like an indefinite pronoun, with meanings like 'someone' or 'anyone', serving as an expression which is indefinite. A relative clause may follow this non-definite expression, modifying the whole indefinite phrase rather than the head noun alone, such as the relative clause in brackets in (73) which follows the indefinite expression *osnok erges* 'someone'.

(73)   *Eri   i-ogow   osnok erg-es   [noga ogow ofon*
       they.PL 3PL-chop   person NUM:1-one REL   chop 3SGPOS

       m-efina].
       NR-sib.in.law.s.s
       'They killed someone who killed their brother-in-law.'   [D]

(74)   ***Ofa   erg-es***   *tin   em-oj-miy*   *éra.*
        s/he   NUM:1-one   also   IRR-descend.in-water   NEG
        'Not even one drown.'   [D]

6.3.7 Determiners

A head noun may be determined by a spatial enclitic functioning as a demonstrative or by
a demonstrative pronoun.

6.3.7.1 Spatial enclitics as determiners

The proximal enclitic *–ka* 'near', the medial enclitic *–ma* 'far', the proximal compound
enclitic *–kef* 'here' in their function as textual deictics (§5.3.1.1), may modify a head
noun. These, plus the textual enclitic *–mis* 'former', occur as final elements of a noun
phrase, and may attach to the head noun itself, such as *meyja* 'table' in (75) and *mot*
'night' in (76), to a spatial relator noun, such as *ogoh* 'base' in (77), or even to the final
element of a relative clause, such as *osmoms* 'strange' in (78).

(75)   *Mok en-ah jig   meyja=**ka**.*
        bowl DUR-lie LOC   table=near
        'The bowl is on this table.'   [D]

(76)   *Dif di-ek   meybagá efeyu   oyfa-mofa ni   mot=**mis**.*
        I   1SG-see sky   patterned good-RED on   night=former
        'I saw the beautiful sky last night.'   [D]

(77)   *No-ma-i   en-ah   mer   ogoh=**ma**.*
        DNR-far-GIV   DUR-lie bed   base=far
        'It is under the bed.'   [T30]

(78)   *Bua   m-osusuy   rot   mar   [noga osmoms]=**ma-i**   edak.*
        you.SG IRR-startled about thing REL   strange=far-GIV   NEG.DEON
        'Don't be surprised by these strange things.'   [TT]

6.3.7.2 Demonstrative pronouns

Demonstrative pronouns (§5.3.1.2) as phrase-final constituents of a noun phrase mark the
boundary of the noun phrase. The demonstrative pronoun *nokef* 'this' in (79), occurs as
the final item in the noun phrase, modifying the head noun *mar* 'thing', not *mif* 'we.PL'
which is the last item in the relative clause.

(79)   *Mar* [*noga bua   bi-eyta gug mif*] **no-kef**   *erá*   *romreg*
        thing REL   you.SG   2SG-take to   we.PL DNR-here   THM   all

        edemejgema.
        equal
        'These things that you gave us are all equal.'   [T29]

Demonstrative pronouns may occur following adjectival verbs, such as *nokef* follows *efenahah* in (80), numerals as in (50), indefinite quantifiers (60), relative clauses (65), and specifiers as in (72),

(80)   *Dif di-ec   miyec i-egak efen-ah-ah   **no-kef**   jig pasar.*
        I   1SG-buy clothes 3PL-leg new-INTS-RED   DNR-here   LOC market
        'I bought these very new pants in the market.' (leg clothes = pants)   [D]

If a demonstrative pronoun, such as *nokef* 'this' in (81), follows a focus adverb like *romreg* 'all', its function is spatial or temporal, but not textual, that is, it is outside of the noun phrase, as focus adverbs are not constituents of noun phrases.

(81)   *Mesta ekena enin-ma   mowos romreg   **no-kef**.*
        moon glow light.up-near village all   DNR-here
        'The moon shines [so] it illuminates the entire village now.'   [D]

6.3.8 Interrogative words

Interrogative words (§4.4), such as *ergaha* 'how many', *nef* 'which', and *midá* 'what', may modify a head noun. Their position in the noun phrase is the same position as the type of word which the interrogative replaces. The interrogative quantifier *ergaha* 'how much' or 'how many' replaces a quantity word, such as a numeral or indefinite quantifier, as in (82). The demonstrative pronoun *nef*, as an interrogative, replaces a demonstrative, as in (83). The interrogative word *midá* replaces an descriptive element, whether it functions interrogatively (84) or descriptively (85).

(82)   *I-osnok   **i-erg-aha**   noga i-en-ebah   jig   desa=ma-i?*
        3PL-person   3PL-NUM:1-QUAN REL   3PL-DUR-live LOC village=far-GIV
        'How many people are there who are living in that village?'   [T29]

(83)   *Bua   bi-ewer   jig moroj **nef**-a?*
        you.SG   2SG-pass   LOC path   which-PGE
        'You passed on which path?'   [D]

(84) *Mar noga dif di-edem   jig di-etma no-kef   erá   mar **midá?***
      thing REL I   1SG-hide   LOC 1SG-arm DNR-here   THM thing what
      'The thing which I have hidden in my hand here, the thing is what?'   [D]

(85) *Ofa   ofon   amok(a)-ri tin   i-oduy   os-os   rot   i-en*
      s/he   3SGPOS friend-PL   also   3PL-front move.horiz.-RED   about 3PL-do

      *mar   **midá**   esebra.*
      thing what   continuous
      'His friends also want to do whatever (they want) all the time.'   [D]

The temporal question word *echa* 'when' replaces either a temporal adverbial (§4.1.3.1) or numeral, as in (86). Names of days (§4.2.3.2) are compounds composed of a numeral plus the alienable noun *mona* 'day', so that the response frequently involves a numeral.

(86) *Bua   bi-en   mona **echa?***
      you.SG 2SG-come day   when
      'When are you coming?'   [D]

6.4 Noun phrase coordination

In Moskona there are three elements which serve to conjoin noun phrases: the conjunction *dokun* 'and', the negative adverb *éra* 'DSJ', serving as a disjunctive conjunction and the clause-final adverb *eke* 'ENUM', functioning as an enumerator. All of these elements also conjoin clauses (§11.3).

Noun phrases composed of two elements may be conjoined by the conjunction *dokun* 'and', such as the possessed inalienable nouns *dusum ofon* 'tip of my nose' and *difejej* 'my heart' linked in (87), or the nouns *tuan* 'sir' and *Mesakh* 'Mesakh' governed by the preposition *dec* 'same location as' in (88).

(87) ***Di-osum ofon** dokun **di-efefej** erá, bi-esah   ah etkebr-ok bua.*
      1SG-nose tooth and   1SG-heart THM 2SG-put   lie short-side you.SG
      'The tip of my nose and my heart, place near you.'   [T7]

(88) *Dif di-éysaha dec   **tuan** dokun **Mesakh** jig   pelabuhan[47].*
      I   1SG-reach same.loc.as mister and   Mesakh LOC   port
      'I arrived at the same place as mister and Mesakh at the port.'   [D]

Two noun phrases may be conjoined by the negative adverb *éra* 'NEG', glossed as 'DSJ' when serving as a disjunctive conjunction, such as the pronouns *bua* and *dif* in the

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[47] The words *pelabuhan* 'port' and *tuan* 'mister' are borrowed from Indonesian.

coordinate NP, in (89), the NPs *ofon marotot* and *ofon efer* in (90), and the nouns *mer* and *moj* in the appositional NP in (91).

(89) **Bua**   *éra* **dif**-*a noga y-owha,   tiná y-erg-em   erá   y-eker.*
     you.SG DSJ I-PGE REL   DU-leave but DU-NUM:1-CST THM   DU-sit
     'Either you or I are who goes, but one of us stays.'   [D]

(90) *edá   dif di-ejij*   **ofon**   **marotot** *éra* **ofon**   **efer**   *jig.*
     then   I   1SG-take.hostage 3SGPOS goods   DSJ 3SGPOS child LOC
     'then, I took hostage his goods or his child [for ransom]'   [T14]

(91) *Eri   i-ek   merga   noga edegejga,* **mer**   *éra* **moj.**
     they.PL 3PL-see wood   REL   match.up ironwood DSJ banyan
     'They saw trees which were suitable, ironwood or banyan trees.'   [T3]

Multiple noun phrases may be conjoined by the disjunctive conjunction *éra* 'DSJ', as in (92) in which the polar question marker –*ey* 'Q' is cliticized to the disjunctive conjunction, to indicate a meaning like 'whether'. When multiple NPs are conjoined, the conjunction is preceded by a pause (signaled by a comma), and occurs preceding each conjoined NP.

(92) *i-en   maekena romreg rot*   **mesi,** *ér(a)=ey* **moma,** *ér(a)=ey*   **meni,**
     3PL-do   garden   all   about taro DSJ=Q cassava DSJ=Q   banana

     ér(a)=ey **muy,**   *ér(a)=ey* **meref,** *ér(a)=ey*   **mok**.
     DSJ=Q   sweet.potato DSJ=Q   greens DSJ=Q   pandanus
     '(they) made a garden for everything, whether with taro, or cassava, or bananas, or sweet potatoes, or greens or pandanus.'   [T3]

Multiple disjunctive items may also be juxtaposed, with the disjunctive conjunction *éra* 'DSJ' placed immediately before the last item given, as in (93). The noun phrase *mek noga ofonon* 'pigs which were huge' is appositional, not enumerative.

(93) *Ofa em-eyh(a) jera* **miy, mek, mek noga ofonon**, *éra* **miy**   **efem-a**.
     s/he IRR-pay   with cloth pig   pig   REL   huge   DSJ cloth bolt-PGE
     'He would pay with cloth, pigs, pigs which were huge, or bolts of cloth.' [T15]

When more than two noun phrases are listed, the aspectual adverb *eke* 'almost', functioning as an enumerative conjunction, is employed, and glossed as 'ENUM', implying items of equal status, such as the pronouns *bua*, *dif*, and *ofa* in (94) or nouns *mesiga*, *medefa, mitow, mesi*, and *mesina* in (95). The enumerative conjunction occurs as part of the intonation contour of the noun or noun phrase which precedes it, and a short pause follows the conjunction. It may not be used to enumerate disjunctive items.

(94)   ***Bua***   *eke,*   ***dif*** *eke,*   ***ofa*** *eke,*   *menejog*   *edá,*   *mif*   *mi-owha*   *jig*
      you.SG ENUM I   ENUM s/he ENUM tomorrow then   we.PL 1PL-leave LOC

      Manokwari.
      Manokwari
      'You, me, and him, tomorrow then, we leave for Manokwari.'   [D]

(95)   *Mar*   *romreg*   *noga*   *en-ah*   *jig*   *mod,*   *okuk*   ***mesiga*** *eke,*   ***medefa*** *eke,*
      thing   all   REL   DUR-lie LOC house like   ladder   ENUM sago   ENUM

      mitow   *eke,*   ***mesi*** *eke,*   *dokun*   ***mesina***   *tin.*
      machete ENUM taro   ENUM and   stringbag   also
      'All the things which were in the house, were like the ladder, the sago, the
      machete, the taro, and the stringbag also.'   [T23]

Only a few examples of listed items have been observed in which the enumerative
conjunction has been omitted and juxtaposition alone indicates conjoining as in (96).

(96)   *Mek*   ***ofon***   ***ofordor, efenok ofombra,*** *efefej,* ***otkon(a)***   *romreg*   *ah*
      pig   3SGPOS   liver   intestine lungs   heart intestines all   lie

      jig   *oduy*   *(ew)es.*
      LOC   front   cavity
      'A pig's liver, intestines, lungs, heart, (and) stomach all are in it's abdomen.' [D]

6.5 Appositional noun phrases

A noun phrase may be followed by an appositional noun phrase, which is unmarked
syntactically, that is, they occur in juxtaposition. (Appositional noun phrases are noun
phrases which are constituents of the same syntactic level and are coreferential). The
appositional noun phrase may add information, such as the proper name *Isisge* in (97) or
the tree names *mer* 'ironwood' and *moj* 'banyan' in (98), or as in (99), the appositional
noun phrase clarifies which participants.

(97)   *Efer*   *orna,*   ***Isisge*** *eti*   *ejena*   *noga*   *Eriefiosga* *ofon*   *mosu*   *ni ...*
      child   man   Isisge force   woman   REL   Eriefiosga 3SG POS   mother   for
      'The guy, Isisge forced the woman who was Eriefiosga's mother to ....' [T25]

(98)   *Eri*   *i-ek*   *merga*   *noga*   *edegejga,*   ***mer***   *éra*   ***moj.***
      they.PL 3PL-see wood   REL   match.up ironwood DSJ banyan
      'They saw trees which were suitable, ironwood or banyan trees.'   [T3]

(99)   *Eri   i-oksomus skod misi,   **eri   no-mis-i.***
        they.PL 3PL-return to   bandicoot they.PL DNR-former-GIV
        'They returned to the bandicoots, those former ones.'   [T9]

A noun phrase occurring in a thematic frame may also be followed by a resumptive or shadow pronoun, which is co-referential with the topic and fills the position of subject, with a pause between the two. Usually, the resumptive pronoun, such as *ofa* 'she' in (100), occurs as the subject argument of the verb, but occasionally a resumptive pronoun will follow the object or an indirect object, as in (101).

(100)   *Tiná ejena   no-ma-i,   **ofa**   odowa.*
        but   woman DNR-far-GIV   s/he   disinclined
        'But the woman, she was disinclined.'   [T25]

(101)   *Y-efer   no-ma-i   y-ejeka   gug m-edina,   **ofa**   tas.*
        DU-child DNR-far-GIV DU-call.out to NR-grandparent s/he   again
        'Those (two) kids called again to the ancestor, him.'   [T23]

At the beginning of a narrative when participants are introduced, a noun phrase followed by an appositional noun phrase may occur as topic, such as the NP *ofon mokesa* 'her younger sister' and the proper name *Ejines* in (102), or the NP *orna* 'man' followed by the proper name *Itmokuah* in (103). The resumptive pronoun fills the position of subject.

(102)   *Ofon   m-ok-esa,   **Ejines, ofa**   eker   mow jig   mod efeyu.*
        3SGPOS NR-sib.s.s.-yg Ejines s/he   sit   land LOC   house immature
        'Her younger sister, Ejines, she lived in the place in a small house.'   [T10]

(103)   *Orna, **It-moku-(eb)ah,***   no-ka-i   erá, **ofa**   ecira...*
        man   they.eat-mushroom-raw DNR-near-GIV THM s/he   walk
        'The man, They-ate-raw-mushrooms, this one, he walked ...'   [T24]

Chapter 7
Prepositional phrases

7.0 Introduction

Prepositional notions in Moskona are expressed by three means: nominally as spatial relator nouns, discussed in (§3.1.2.3), verbally as verbal prepositions, discussed in (§9.2), and prepositionally as prepositional phrases, presented in this chapter.

Moskona has a rich inventory of prepositions which govern all peripheral arguments, with the notable exception of the reciprocal pronoun *mogum* '(to/with/from) each other' (§5.1.1) which is unmarked syntactically. The choice of preposition indicates the semantic role of the peripheral argument. Prepositions may be broadly categorized by dividing their semantic functions into spatial and non-spatial relations. Spatial prepositions primarily encode the semantic role of location or direction of the noun they introduce, but the meaning of many non-spatial prepositions is not easily captured by a single gloss, as a number of their senses require different translations. The spatial prepositions will be presented first in §7.2, followed by non-spatial prepositions discussed in §7.3 with regard to the semantic roles which they mark. The three locative adverbs: *tesi* 'below', *teraw* 'above' and *gujga* 'beneath' may serve as spatial prepositions, and the conjunction *dokun* 'and' may serve as a non-spatial preposition, and so are included in this discussion. Finally, prepositional notions expressed verbally will be mentioned briefly.

7.1 Structure

A prepositional phrase consists minimally of a preposition and its complement. Prepositions govern complements which may be noun phrases, such as *mebka nomi* in (1), demonstrative pronouns, such as *nomisi* in (2), verb-phrase adverbs, such as *terir* in (3) or spatial deictics, such as *ideyja* in (4).

(1)   *Bua*   *bi-ec*   *medeg* **rud**   **mebka**   **no-ma-i**.
        you.SG   2SG-press.on bamboo against mango   DNR-far-GIV
        'Lean the bamboo against that mango tree.'   [D]

(2)   *moroj noga eri*   *i-ewer*   **jig**   **no-mis-i.**
        path   REL   they.PL   3PL-pass LOC   DNR-former-GIV
        'the path which they crossed on there.'   [T7]

(3)   *Orna no-mi,*   *ofa ereni esha ni eri*   *i-ejgen*   **rot**   **terir**.
        man   DNR-far-GIV   s/he mark away   for   they.PL   3PL-know   about   exactly
        'The man, he made a mark so that they knew [the place] exactly.'   [D]

(4)   *Dif di-ek   mar   no-ma-i   ah **jig**   **i-da=eyja**.*
       I   1SG-see thing DNR-far-GIV   lie LOC   VIS-up=THITHER
       'I saw the thing [which was] up there.'   [D]

This same preposition plus complement structure has been observed in languages found in the eastern and central areas of the Bird's Head, including Meyah (Gravelle 2004:189), Sougb (Reesink 2002b:230), Hatam (Reesink 1999:63), Mpur (Odé 2002:69) and Maybrat (Dol 1999:130).

In addition to their function as peripheral arguments, prepositional phrases may also serve as modifiers of a noun phrase when giving the location of a participant rather than that of the event as a whole. For example, the prepositional phrase *jig mow nomi* 'in that place' modifies *isnok* in (5) and the prepositional phrase *fen Merdey* 'from Merdey' modifies the pronoun *eri* in (6).

(5)   *I-osnok   **jig mow no-ma-i**   erin   mod efega   ciyja.*
       3PL-person LOC land   DNR-far-GIV   3PLPOS house ANIMAL five
       'The people in that place have five houses.'   [D]

(6)   *Eri   **fen   Merdey** i-en   i-ef   i-efer   jig   Meyerga.*
       they.PL from Merdey 3PL-come 3PL-shoot 3PL-sore LOC   Meyerga
       'They from Merdey came [and] shot [and] wounded (people) in Meyerga.' [D]

Prepositional phrases may not function as non-verbal predicates, as in a clause like 'The bird was in the tree.', but instead may be adjuncts of the classificatory verbs *ah* 'lie', *eker* 'sit', *ot* 'stand' and *ebah* 'live', which function existentially, such as the prepositional phrase *jig mod* is an adjunct of the classificatory verb *ah* in (7).

(7)   *Mar   erg-em   ah **jig**   **mod**=kef*
       thing NUM:1-CST lie LOC   house=here
       'Something is in the house now'   [T27]

7.2 Spatial prepositions

A spatial preposition locates an object in space with regard to a reference object. The spatial prepositions, with the exception of *jig* 'LOC', are very exact with regards to the location of the object and its reference object. This orientation is distinguished from spatial relator nouns (§3.1.2.3) which specify a portion of the reference object, (e.g. house's back). The spatial prepositions are given in Table 7.1 below with notation (+/-) indicating whether they govern an animate or inanimate noun phrase.

Table 7.1 Spatial prepositions

Preposition	Gloss	Animate	Inanimate
jig	'LOC'	-	+
dec	'same location as'	+	+
fen	'from'	+	+
had	'toward'	-	+
kerenga	'upon'	+	+
kuk	'along' or (be)side'	-	+
ni	'at'	-	+
rejrej	'around'	-	+
rud	'against'	-	+
rudud	'by'	-	+
skod	'to (s.o. location)'	+	-
tum	'on(to)'	-	+

7.2.1 The preposition *jig*

The generic locative preposition *jig* 'LOC' marks simple undifferentiated spatial overlap, that is, it marks near or total spatial overlap of the located object and the reference object, sharing the same general space (cf. Frawley 1992:255). It indicates an endpoint, but is vague as to semantic components, such as degree of overlap. It's precise meaning is derived from the semantic components of the verb, as in the clause *Ofa eyja jig kota* (s/he go LOC town) 'He went to town.' where the semantic components of the verb *eyja* 'go' indicate direction away from the deictic center. The nominals governed by *jig* are always inanimate.

The generic preposition *jig* may express a variety of spatial relations, such as 'to' in (8), 'at' in (9), 'into' in (10), or even 'on(to)' in (11) or 'upon' in (12). However, when the semantic components of the verb do not provide sufficient spatial indicators, a more specific locational indicator is used.

(8)　*Yef　　y-em-owha　**jig**　pasar.*
　　　we.DU　DU-IRR-leave　LOC　market
　　　'We will leave to the market.'　　　　　　　　　　　　　　　[D]

(9)　*ergog　y-ebah　jig　mod　　erg-es*
　　　they.DU　DU-live　LOC　house　NUM:1-one
　　　'They lived in a house.'　　　　　　　　　　　　　　　　　[T5]

(10)　*Eri　　i-esah　　mon　　ogos　**jig**　burua　ewes.*
　　　they.PL　3PL-put　corpse　die　LOC　box　cavity
　　　'They placed the dead body in the coffin.'　　　　　　　　　　[T29]

(11)   *Dif di-ek   mars(a) ofoga **jig**   merg(a) owok.*
        I   1SG-inject game   flesh   LOC   wood   outgrowth
        'I skewered the game meat onto the stick.'   [D]

(12)   *Ejena esiwkjig   miyes   ah   **jig**   mofun   esebra.*
        woman allow   clothes lie   LOC   vine   continuously
        'The woman left the clothes upon the vine (clothesline) continuously.' [D]

As a generic spatial preposition, *jig* 'LOC' has the widest variety of complements. In addition to noun phrases, as in (8-12), it may also govern spatial nouns, such as the spatial noun *no-mej* 'there (remote)' in (13), demonstrative pronouns, such as *nomi* 'that (place)' in (14), locative adverbs, such as *teraw* 'above' in (15), or spatial relator noun phrases, such as *miy odog* in (16).

(13)   *Merga no-ma-i   erá noga ot   **jig no-mej**.*
        wood   DNR-far-GIV   THMREL   stand LOC DNR-remote
        'The tree is the one that stands (is) yonder.'   [T27]

(14)   *Bua   bi-er-ef   mar-mosorn(a) **jig no-ma-i**   edak.*
        you.SG 2SG-CAUS-distribute thing-hunger   LOC DNR-far-GIV NEG.DEON
        'You shouldn't plant food (plants) at that place.'   [D]

(15)   *Ofa   ahac mesnom oforga   osoror   **jig**   teraw.*
        s/he   tie   corn   hardened suspended LOC   above
        'She tied the dried corn [so] it was suspend above.'   [T23]

(16)   *Kawar miy   ewer teraw **jig** miy   odog.*
        vehicle water cross above LOC water belly
        'The ship crosses above on the water's surface.'   [D]

The generic preposition *jig* may also introduce temporal phrases, such as the temporal adverbial phrase *mesta okes erges* in (17) or *mona sokomow* in (18).

(17)   *Edá, eri   i-ora   mod no-ma-i   **jig**   mesta okes erg-es.*
        then they.PL 3PL-build house DNR-far-GIV LOC   moon whole NUM:1-one
        'Then, they built the house in one whole month.'   [T3]

(18)   ***Jig**   mona sokomow erá, ofa owok(a)   oyf-omof, tiná   kus=kef...*
        LOC   day   beginning THM s/he name   good-RED   but   short.span=here
        'In the beginning, his reputation was good, but now....'   [D]

The generic locative preposition *jig* in Moskona seems to have a function similar to *se* 'at, in(to)' in Sougb (Reesink 2002b:230) and *ei* 'LOC' in Hatam (Reesink 1999:63), in

that it is a generic type of locative. The Meyah preposition *gij* 'into' with its multiple meanings possibly functions in similar fashion (Gravelle 2004:193).

7.2.2 The preposition *dec*

The spatial preposition *dec* 'same location as', a static or non-directional preposition, always governs an animate noun or pronoun. If the noun refers to a human, it is best translated 'in the presence of', as in (19), if the noun refers to a nonhuman, it is best translated 'at the exact location of' as in (20).

(19)   *Ofa   ogos **dec**   dif.*
        s/he   die   same.loc.as I
        'He died in my presence.'   [D]

(20)   *Dif di-ofof **dec**   mem   kukar   no-ma-i   ni   di-esed.*
        I   1SG-run   same.loc.as bird   cluck   DNR-far-GIV   for 1SG-grab
        'I ran to the chicken's (exact) location to grab (it).'   [D]

7.2.3 The preposition *fen*

In addition to indicating an ablative relation, as in (21), and indicating material/origin, as in (22), or occasionally cause, as in (23), the preposition *fen* 'from' is also used as a linker in comparison phrases, whether comparing an attribute, as in (24), or comparing concrete objects, as in (25).

(21)   ofa *ohas-has* **fen**   *mogom ofoj*   *no-ma-i*   *skod* *mogom ofoj*
        s/he hop-RED   from   stone   blunted   DNR-far-GIV   to   stone   blunted

        erg-em
        NUM:1-CST
        'he jumped from boulder to boulder'   [T23]

(22)   *eri   i-engit   merah **fen**   mogug*
        they.PL 3PL-make   fire   from   tinder
        'they made fire from tinder'   [T2]

(23)   *Miy no-ma-i   eyma   **fen**   mesta*
        water DNR-far-GIV   subside from   moon
        'The water subsides because of the moon'   [D]

(24)   *Dif di-aksa eseter   **fen**   bua.*
        I   1SG-tall much.more   from   you.SG
        'I'm taller than you.'   [D]

(25)   *Mesin   ketik*[48] *ofon   ofuy   erf-i-em   **fen**   komputer*[49].
      machine type   3SGPOS   function   NUM:5-?-CST   from   computer
      'The typewriter has a different function than the computer.'   [D]

The preposition *fen* 'from' and verbal preposition *esha* '(be) from' have equivalent meaning, whether governing an animate or inanimate nouns. (cf. §9.2 verbal prepositions)

7.2.4 The preposition *had*

The spatial preposition *had* 'toward' or 'in the direction of' governs inanimate nouns only, such as the noun *mosorka* 'female toilet hole' in (26) or the cardinal direction compound *maw esir* 'west' in (27). (When animate nouns are the complement, direction is expressed by the spatial preposition *skod* 'to'.) The preposition *had* contrasts with the generic preposition *jig* 'LOC', as in (28), which indicates an endpoint.

(26)   *jig mocha owos **had**   mosork(a)   i-(esi)r-(ji)g-ej.*
      LOC k.o.tree   skin   toward   toilet.hole   3PL-fall-LOC-fem.
      'on the bark [wall] toward the female's toilet hole'   [T7]

(27)   *Kota Sorong erá   ah **had**   maw esir.*
      town Sorong   THM   lie   toward   sun   fall
      'Sorong town lies to the west.'   [D]

(28)   *I-osnok   Miyáh   i-eker   **jig**   maw   teraw.*
      3PL-person   meyah   3PL-sit   LOC   sun   above
      'The Meyah people reside in the north.'   [D]

7.2.5 The preposition *kerenga*

The spatial preposition *kerenga* 'upon' indicates a relationship of an object having a physical orientation above the reference object, usually indicating physical contact, as in (29) and (30). The preposition *kerenga* also functions figuratively to indicate influence, as in (31).

(29)   *miy   ohr-ohra   eyj efir   efsa   **kerenga** muy   no-ma-i.*
      water   splash-RED   toss foam   white   upon   sweet.potato DNR-far-GIV
      the water splashed [and] threw foam over the sweet potatoes.'   [D]

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[48] The noun phrase *mesin ketik* is borrowed from the Malay noun phrase *mesin ketik* 'typewriter'.

[49] The word *komputer* is borrowed from Malay which borrowed the term from English.

(30)   *Bua   bi-or   mogom bi-er-ekewen   **kerenga**   kertas⁵⁰ efi*
        you.SG 2SG-hold stone   2SG-CAUS-weigh.down   upon   paper   leaf

        no-kef.
        DNR-here
        'Weigh down these papers with the stone.'   [D]

(31)   *Ofa   oked mar **kerenga**   merga   owok(a).*
        s/he   chant thing upon   wood   outgrowth
        'He chanted over the tree branch.'   [T27]

The preposition *kerenga* may also serve as a verbal particle or adjunct (§4.1.4), having as a probable common origin the transitive verb *ekerenga* '(be) upon s.t.'.

7.2.6 The preposition *kuk*

The spatial preposition *kuk* 'along', indicating proximity following the length of something, governs objects which are inanimate, such as the noun *merah* 'fire' in (32) or the noun phrase *miy nomi* 'river' in (33).

(32)   *Ofa er-ef   miyes   noga etet **kuk**   merah   ni   aharg(a).*
        s/he CAUS-distribute clothes REL damp along fire   for   dry
        'She spread out the clothes which were damp next to the fire to dry.'   [D]

(33)   *(ergog) y-osok   **kuk**   miy   no-ma-i   esebra*
        they.DU DU-climb.up along water DNR-far-GIV continuous
        'they ascended continuously along the river.'   [T23]

7.2.7 The preposition *ni*

The spatial preposition *ni* 'at' which indicates a stationary location or position of proximity, governs inanimate objects, such as the alienable noun *maw* 'sun' in (34) or the inalienable noun *oduy* 'front' in (35).

(34)   *Miyec   noga dif di-er-ef   **ni** maw erá   aharg(a) jog.*
        clothes REL I   1SG-CAUS-distribute at sun THM dry   already
        'The clothes which I spread out in the sun are already dry.'   [D]

(35)   *Bua   bi-en   bi-ah   **ni** di-oduy.*
        you.SG 2SG-come 2SG-lie at 1SG-front
        'Come lie at my front.'   [T25]

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⁵⁰ The word *kertas* is borrowed from Malay.

7.2.8 The preposition *rejrej*

The spatial preposition *rejrej* 'around', which indicates location on all sides of something or encircling a central point, has a reduplicated form as its root and governs both animate and inanimate nouns, such as *mod* 'house' in (36) and *ofa* 's/he' in (37).

(36)   *Ofa   ah   god   ewes   **rejrej**   mod.*
        s/he   hack   ditch   cavity   around   house
        'He dug a ditch around the house.'   [T29]

(37)   *I-osnok   i-ognunui   i-en   dokun   i-eker   **rejrej**   ofa.*
        3PL-person   3PL-many   3PL-come   and   3PL-sit   around   s/he
        'Many people came and sat around him.'   [TT]

7.2.9 The preposition *rud*

The preposition *rud* 'against', which indicates a vertical orientation with physical contact, governs both animate and inanimate nouns, such as *mejga* 'fence' in (38) and the pronoun *ofa* 's/he' in (39).

(38)   *Ofa ec   merga   **rud**   mejga.*
        s/he press.on   wood   against   fence
        'He leaned the post against the fence.'   [D]

(39)   *Ofa   ec   **rud**   ofa.*
        s/he   press.on   against   s/he
        'He leaned against him.'   [D]

7.2.10 The preposition *rudud*

The spatial preposition *rudud* 'by' or 'almost against' has a reduplicated form of the preposition *rud* 'against' as its root. It governs animate and inanimate nouns, such as *mod* 'house' in (40) or *amok* 'friend' in (41).

(40)   *Y-orna   y-erg-ak   no-ma-i   erá   y-owra   **rudud**   miy   jig*
        DU-man   DU-NUM:1-two   DNR-far-GIV   THM   DU-cross   by   water   LOC

        no-kef
        DNR-here
        'The two men crossed by the river here.'   [T10]

(41)   *Ergog   y-ewer   **rudud**   mif*
        they.DU   DU-pass   by   we.PL
        'They passed by us.'   [T10]

7.2.11 The preposition *skod*

The spatial preposition *skod* 'to (someone's location)' typically governs animate noun phrases, such as the pronoun *bua* in (42) or the noun phrase *osnok noga ofon mod nomi* in (43), although may be used occasionally to refer to the location of an inanimate object, and occurs only with verbs which have a semantic component of motion. The spatial preposition *skod* 'to', marking location is distinguished from the non-spatial preposition *gug* 'to' which marks recipient or goal. The preposition *skod* is morphologically similar to the Sougb collapsed phrase *skwada* 'its over there' (Reesink 2002b:198) and Meyah preposition *skoita* 'to' (Gravelle 2004:166).

(42)   *Dif di-esejah   ni   di-eyja **skod** bua   jig   no-mej.*
        I   1SG-prepare for   1SG-go   to   you.SG LOC   DNR-remote
        'I prepared to go to you at (the place) yonder.'   [D]

(43)   *Ofa eyja edis   **skod** osnok   noga ofon   mod no-ma-i.*
        s/he go   miss   to   person   REL   3SGPOS   house DNR-far-GIV
        'He went directly to the person who owned the house.'   [D]

7.2.12 The preposition *tum*

The spatial preposition *tum* 'onto' governs nouns referring to objects with a perceived vertical surface. These may be trees (with their components: forks, branches, hollows, fruit), such as *mohega* 'k.o.tree' in (44), houses, (with their components: walls, rooms) and humans (with their various components: arms, legs, body), such as *owos* 'skin' extended to mean 'body' in (45).

(44)   *Yom   ok   osok   **tum**   mohega*
        Yom   flee climb.up onto   k.o.tree
        'Yom fled [and] climbed up on a mohega tree.'   [T6]

(45)   *mar owok   er-eft(a)   ofon   miyes   **tum**   owos.*
        thing outgrowth CAUS-attach.to   3SGPOS   clothes   onto   skin
        'the seeds stuck to the clothes on his skin.' (i.e. clothes he was wearing)[D]

The spatial preposition *tum* 'onto' also has the figurative meaning 'depend on' in (46).

(46)   *bua   bi-ebah **tum** eri   susuy*
        you.SG   2SG-live onto   they.PL   other.kinds
        'you live on (depend on) other kinds of people (non-clan members).'   [T26]

7.2.13 Locative adverbs as spatial prepositions

The locative adverbs *tesi* 'below' (47), *teraw* 'above' (48) and *gujga* 'beneath' (49) also function prepositionally, in that they may introduce an object which may serve as an adjunct of an intransitive verb (cf. §7.1).

(47)   *Mes   ah   **tesi**   meyja ogoh.*
       dog   lie   below table   base
       'The dog laid (was) below the table'   [D]

(48)   *Karmof   of   **teraw**   mif.*
       airplane   fly   above   we.PL
       'The airplane flew above us.'   [D]

(49)   *Mes   eker   **gujga**   meyja ogoh.*
       dog   sit   beneath   table   base
       'The dog sits (is) underneath the table.'   [D]

7.2.14 Prepositional phrases with spatial relator nouns

The generic preposition *jig* 'LOC' is the preposition which most frequently governs spatial relator noun constructions, in which the specific location is expressed by a spatial relator noun, such as the phrase *merga eferu ewekesa* in (50). However, spatial relator noun constructions may also occur with other prepositions, such as *kuk* 'along' in (51) and *gujga* 'beneath' in (49).

(50)   *Ofa   edem miyefen   **jig**   merga   eferu   ewekesa.*
       s/he   hide   money   LOC   wood   segment   midst
       'She hid the money in between the boards.'   [D]

(51)   *Yua   yi-ahrir **kuk**   memeg(a) ogoh.*
       you.PL   2PL-skirt along   mountain   base
       'You (PL) skirted along the base of the mountain.'   [D]

7.3 Non-spatial prepositions

The non-spatial prepositions encode peripheral arguments in the roles of time, beneficiary, adversary, cause, goal, recipient, comitative and manner. The non-spatial prepositions are given in Table 7.2 by primary role with a notation (+/-) indicating whether they govern an animate or inanimate noun phrase. The semantic roles encoded by each preposition will be discussed under each preposition individually.

Table 7.2 Non-spatial prepositions

Temporal			Animate	Inanimate
ni	'on' (specific time)		-	+
jida	'until' or 'up to'		-	+
Purpose / Benefactive				
ni	'for'		+	+
ten	'BEN'		+	-
Adversative				
jug	'against'		+	+
daka	'in aversion'		+	-
Goal				
gug	'to'		+	-
Comitative				
jera	'with'		+	+
Goal/ Comitative / Causal				
rot	'with' or 'about'		+	+
Replacive				
sof	'instead (of)'		+	+

7.3.1 The preposition *ni*

The temporal preposition *ni* 'on' marks temporal phrases which indicate a specific time, as on a specific day or date, such as *men-esif* 'daybreak' in (52), or the name of the day *Mona Ergak* (53). It is homophonous with the spatial preposition *ni* 'at' (§7.2.7) and the nonspatial preposition *ni* 'for' (§7.3.3).

(52)   *Edá   etkebr-ok **ni** men(a)-esif, edá   ergog   y-ok...*
        then   short-side on day-open   then   they.DU DU-flee
        'Then near [at] daybreak, then they fled....'   [T23]

To distinguish between the name of a day of the week and an ordinal reference, two different prepositions are used. The preposition *ni* 'on' governs phrases headed by proper nouns, such as *Mona Ergak* in (53), but the generic preposition *jig* 'LOC' is used to indicate the order of a day, as in (54).

(53)   *Dif di-en   **ni**   Mona Erg-ak.*
        I   1SG-come   on   day   NUM:1-two
        'I came on Tuesday.'   [D]

(54)   *Dif di-en   **jig**   mona erg-ak.*
        I   1SG-come   LOC   day   NUM:1-two
        'I came the second day.'   [D]

7.3.2 The preposition *jida*

The temporal preposition *jida* 'until' or 'up to' is possibly a fused verb sequence composed of *eyja* 'go' and *ed* 'join' with the paragoge *–a* 'PGE' added. The initial vowel of the first root having elided, the initial vowel of the second root became high when the compound fused. The preposition *jida* governs temporal phrases, such as *mot* 'night' in (55) and *mesta erges* in (56). The preposition *jida* is analogous to the verbal sequence *eyja er-os* (go.to CAUS-move.horiz.) 'up to'.

(55)   *Ofa   en   maekena   esebra   **jida**   mot.*
        s/he   do   garden   continuous   until   night
        'She worked in the garden continuously until night.'   [D]

(56)   *I-osnok   meren i-osok   i-oyka   jig   mod no-ma-i   **jida***
        3PL-person lake   3PL-climb.up 3PL-dance LOC   house DNR-far-GIV until

        mesta   erg-es.
        moon   NUM:1-one
        'A lot of people go up [and] dance in the house up to one month.'   [T3]

7.3.3 The preposition *ni*

The purpose preposition *ni* 'for' marks beneficiary when the complement of the preposition is animate, such as *ofon mokesa* 'his younger sibling' in (57) and *eri* 'they.PL' in (58), but purpose (or reason) when the complement is inanimate, such as *miy efeyu* 'pond' in (59). The preposition *ni* differs from the preposition *gug*, in that the object of *ni* is beneficiary, but never recipient or goal. The purpose preposition *ni* is homophonous with the temporal preposition *ni* 'on' mentioned in §7.3.1. When the complement is animate, the benefactive preposition *ten* 'BEN' may be substituted with no change of meaning.

(57)   *Ofa   ec   buku efen-ah   **ni**   ofon   m-ok-esa.*
        s/he   buy book new-INTENS   for   3SGPOS   NR-sib.s.s.-yg
        'He bought the very new book for his younger brother.'   [D]

(58)   *mod   no-ma-i   ofon   ofuy   **ni** eri   noga i-ef   mosta...*
      house DNR-far-GIV 3SGPOS function for they.PL REL   3PL-shoot prey
      'the house has the function (use) for them who shoot prey'   [T3]

(59)   *Eri   i-ah   mow   **ni** miy efeyu.*
      they.PL 3PL-hack ground for water immature
      'They dug out ground for a pond.'   [T29]

7.3.4 The preposition *ten*

The benefactive preposition *ten* 'BEN' governs human referents only, indicating beneficiary. The complement may be a pronoun, such as the reflexive pronoun *buaha* in (60), a noun phrase, such as *ofon mohena* in (61), or a proper noun, such as *Markus* in (62). It appears to be fading from use, as very few occurrences are found in my data. In all occurrences of *ten* 'BEN', the more common preposition *ni* 'for' may be substituted.

(60)   *Dif   di-odu   mar   **ten**   buaha.*
      I   1SG-speak thing BEN   2SGRX
      'I am saying it for your own sake (benefit).'   [D]

(61)   *Ofa   or   mod   **ten**   ofon   mohena   romreg.*
      s/he   build house BEN   3SGPOS wife   all
      'He builds houses for all his wives.'   [T30]

(62)   *Dif di-orka   mar   noga okum **ten**   Markus.*
      I   1SG-carry thing REL   heavy BEN   Marcus
      'I carried the thing which was heavy for Marcus.'   [D]

7.3.5 The preposition *jug*

The nominal complement of *jug* 'against' in (63) is the recipient of adversarial intent or the negative beneficiary. If no opposition is intended, the recipient is marked by the preposition *gug* 'to', as in (64).

(63)   *Bua   bi-**eyta**   mar   no-ma-i   **jug**   dif   ejog gijga.*
      you.SG 2SG-take thing DNR-far-GIV   against I   next   only
      'Give that thing to me (as the) next (person).' (to obviate my anger)   [D]

(64)   *Bua   bi-eyta   mar   no-ma-i   **gug** dif ejog gijga.*
      you.SG 2SG-take thing DNR-far-GIV to   I   next   only
      'Give that thing to me next.'   [D]

The adversative preposition *jug,* which may govern animate and inanimate nouns, conveys notions of preventing, as in (65), blocking, as in (66), obviating something, or opposing, as in (67) and (68), depending on the context. As mentioned in §4.1.4, the transitive verb *ocuk* 'block (s.t.)' is a possible origin for the adversative preposition *jug*.

(65)   *Ofa or   mitow   er-ah   mosga   no-ma-i,   erogá ebga **jug***
     s/he hold   machete   CAUS-hack bridge   DNR-far-GIV   hence torn   against

     m-ok-esa.
     NR-sib.s.s.-yg
     'He hacked that hanging bridge, so it was torn against (preventing) the younger
     brother [to return].'   [T7]

(66)   *Mar ofoga   efs(a)   om   **jug**   memeg(a) ebrosurs.*
     thing cloud   white   enclose   against   mountain crown
     'The clouds have closed off the mountain peak (from view).'   [D]

(67)   *Ofa   ofof   rogrog   **jug**   ofon   amok(a)   no-ma-i.*
     s/he   run   immediate against   3SGPOS   friend   DNR-far-GIV
     'He immediately ran away (in opposition) from that friend of his.'   [D]

(68)   *Mif   erá   mi-en-**ebah**   jig moroj   no-ma-i   **jug**   yoga.*
     we.PL   THM   3PL-DUR-live   LOC path   DNR-far-GIV   against   you.DU
     'We were at that path obstructing you two.'   [T25]

7.3.6 The preposition *daka*

The lesser used adversative preposition *daka* 'avert' indicates a negative benefactive and expresses an intention to avert, pre-empt or forestall the complement, as in (69) and (70). Although it has a meaning somewhat close to that of *jug,* it may not be substituted for *jug*. However, *jug* may replace *daka* with little change in meaning. The adversative preposition *daka* and the deontic negative *edak* quite possibly have the transitive verb *edega* 'remove' as a common origin.

(69)   *I-eferiok   i-et   gamgam **daka**   erin   amok(a)-ir.*
     3PL-small.children   3PL-eat candy   avert   3PLPOS   friend-PL
     'The small children ate the candy away from their friends.'   [D]

(70)   *Mes   or-i-om   no-ma-i,   eri   i-et   mar   oforna **daka***
     dog   NUM:7-?-three DNR-far-GIV   they.PL 3PL-eat thing   bone   in.aversion

     mes   enia.
     dog   some.other
     'Those three dogs, they ate the bones away from the other dogs.'   [D]

7.3.7 The preposition *gug*

The nominal governed by the recipient preposition *gug* 'to' can be characterized as either the recipient or goal of the action expressed by the verb, as is *dif* in (71). Syntactically, the complement of *gug* is the indirect object. Although the complement is typically a noun or pronoun referring to a human, such as the goal *dif* 'I' in (72), or the recipient *mos macog* 'soldiers' in (73), *gug* may also be used when animals are treated anthropomorphically. The morphologically similar Meyah preposition *gu* 'at' also indicates goal, but has a broader scope than recipient or goal, expressing a locative role as well (Gravelle 2004:194).

(71)   *Bua   bi-ow   miy   jig   mok   estak   erg-es   **gug**   dif   roga.*
       you.SG   2SG-fill   water   LOC   bowl   butt   NUM:1-one   to   I   first
       'Please fill me a cup of water.' (*roga* = polite command)   [D]

(72)   *dadin   ekok   dokun   ayok   y-ohot   **gug**   dif....*
       1SGPOS   father   and   mother   DU-say   to   I
       'my father and mother said to me...'   [T26]

(73)   *Eri   i-ahatu   osnok   noga   ofogog   **gug**   mos   macog.*
       they.PL   3PL-surrender   person   REL   evil   to   people   gun
       'They surrendered the person who was evil to the soldiers.'   [D]

For the semantically complex transitive verb *eyta* 'take', the presence of *gug* 'to' signals that the direction of the action is away from the agent, as in (74), thus conveying the meaning 'give', as there is no dedicated lexical item in Moskona for 'give'. If the preposition *gug* is not present, the direction is toward the agent, as in (75).

(74)   *ergog   y-**eyta**   mar   no-ma-i   **gug**   orna   ekena   no-ma-i*
       they.DU   DU-take   thing   DNR-far-GIV   to   man   red   DNR-far-GIV
       'they gave the thing to the old man'   [T10]

(75)   *ergog   y-em-**eyta**   medeg   efi   orokec...*
       they.DU   DU-IRR-take   bamboo   leaf   large
       'they would take large bamboo leaves....'   [T23]

7.3.8 The preposition *jera*

The preposition *jera* '(along) with'[51] expresses comitative relations, as in (76) and (77), but occasionally signals instrument relations, as in (78) and (79).

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[51] The preposition *rejera* 'with' is an infrequently used alternative form.

(76)   *i-ejeujen(a)-ir   i-erg-ak   erá   i-en-ah   **jera** ofa*
    3PL-yg.woman-PL   3PL-NUM:1-two THM   3PL-DUR-lie   with   s/he
    'two young women were lying with him.'   [T7]

(77)   *Eri-ej-a   i-esah   mar-mosorn(a)   **jera** marowok*
    they.PL-female-PGE 3PL-put   thing-hunger   with   vegetable

    oroh-roh   jig   mok   estak.
    mix-RED   LOC   bowl   butt
    'They (female) placed the food with the vegetables [so] they mixed in a bowl.'
                                                 [D]

(78)   *Em-eyh(a) **jera** miy, mek, mek noga ofonon éra miy   efema.*
    IRR-pay   with   cloth pig   pig   REL huge   DSJ cloth nest
    '(He) would pay with cloth, pigs, pigs which were huge, or bolts of cloth.' [T15]

(79)   *Mar (eb)ah ogor-gor   **jera** ogá   noga oyf-omof.*
    thing live   cry.out-RED   with   speech REL   good-RED
    'Insects buzzed with noises which were good (pleasant sounding).'   [T27]

The preposition *jera* may also introduce manner adverbial phrases, such as *jera oduy oyfomof* 'happily' in (80) or the adverbial clause *jera oyfomof* 'well' in (81), although there are very few occurrences in my data.

(80)   *Ofa   en   mar **jera** oduy   oyf-omof.*
    s/he   do   thing with   front good-RED
    'He does things happily.' (good front = happy)   [D]

(81)   *ofa   em-owha jig   mod **jera** oyf-omof*
    s/he   IRR-leave LOC   house with   good-RED
    'she would leave for her house happily.'   [T27]

7.3.9 The preposition *rot*

Phrases governed by *rot* 'about' or 'in reference to' express the widest range of semantic roles, marking purpose, goal, comitative, cause, and more rarely, instrument. Most frequently *rot* may be glossed 'for' or 'with'.

The preposition *rot* may mark purpose (or benefit) toward which the action is directed, such as the noun *mos* 'fish' in (82)or the noun *isnok* 'people' in (83). In these instances, *rot* may be translated 'for'.

(82)   *Ofa   ah-miy   **rot**   mos.*
        s/he   lie-water   about   fish
        'He lies-on-water for fish.' (i.e.fishing)   [D]

(83)   *i-er-etka   merga   no-mis-i   **rot**   i-osnok   noga   i-en-eker*
        3PL-IRR-split   wood   DNR-former-GIV   about   3PL-person   REL   3PL-DUR-sit

        jig...
        LOC
        '(they) split [open] the tree for the people who were living in ....'   [T7]

When the action is directed toward the goal, such as *bua* 'you.SG' in (84) or *irgem* 'others' in (85), the preposition *rot* may be translated generally as 'with' or 'with regard to'.

(84)   *eri   tin   i-oduy   efef   **rot**   bua.*
        they.PL   also   3PL-front   ache   about   you.SG
        'they also love you' (lit. front aches about you)   [T26]

(85)   *Bua   bi-em-er-em-etejen(a)-ima   buaha   **rot**   i-erg-em   edak.*
        you.SG   2SG-IRR-CAUS-RECIP-compare   2SGRX   about   3PL-NUM:1-CST   NEG.DEON
        'You shouldn't compare yourself (with regard) to others.'   [D]

The preposition *rot* may indicate a comitative relationship, as in (86) and (87). When the action is something done along with the goal, *rot* may best be translated 'with', as in (88).

(86)   *Dif erá   noga   di-esir   **rot**   buwun   mohena.*
        I   THM   REL   1SG-fall.down   about   2SGPOS   wife
        'I am [the one] who fell down (committed adultry) with your wife.'   [D]

(87)   *eri   noga   susuy   i-ok   **rot**   eri   jog*
        they.PL   REL   other.kind   3PL-flee   about   they.PL   already
        'those other kinds (of people) had already fled with them.'   [T7]

(88)   *I-eferiok   i-ahisen   **rot**   bara jig   mow eke-ken(a).*
        3PL-sm.children   3PL-play   about   ball   LOC   land   red-RED
        'The small children played with the ball in the clearing.'   [D]

Only a few instances of the preposition *rot* signaling instrument, such as *erin mar okowa* in (89), have been found in my data. In (90) the implicit complement of *rot* was expressed as in the main clause.

(89)   *Smen, i-osnok i-er-egedid   ofa **rot** erin   mar okowa.*
        perhaps 3PL-person 3PL-CAUS-obstruct   s/he about 3PLPOS thing debt
        'Possibly, people hindered him with their obligations.'   [D]

(90)   *Ofa   of mohusor   ni er-ah   meg **rot**.*
        s/he   fell k.o.tree   for CAUS-hack raft   about
        'He felled a *mohusor* tree to hack out (make) a raft with (it).'   [D]

The preposition *rot* may also express a causal relationship, as in (91), (92) and (93), and may be translated 'from' or 'resulting from'.

(91)   *Ejena   no-ma-i,   ofa   odog (ew)ek **rot**   ofon   efer.*
        woman   DNR-far-GIV   s/he belly bump   about 3SGPOS child
        'The woman, her belly is rounded from her child.'   [D]

(92)   *Efer no-ma-i,   ofa ebi   **rot**   mar-(ew)et.*
        child DNR-far-GIV   s/he defecate about thing-semi.solid
        'The kid, he defecated from worms.' (*mar ewet* = worms)   [T29]

(93)   *Dif di-ohes-is   di-etma   **rot**   mar-(eb)ah.*
        I   1SG-agitate-RED 1SG-arm   about thing-live
        'I shook my hand as a result of the insects.' (*mar-ebah* = insects)   [D]

In stranded position, the preposition *rot* has the meaning 'as a result' (of the event)' or 'about (the event), as in (94-95), and always occurs following the verb core.

(94)   *erogá ofa   oyok mar **rot**.*
        hence s/he   swear thing about
        'so she swore about it'   [T7]

(95)   *Esha ofa eg mar noga okum, erogá efefej   okw-okwa   **rot**.*
        from s/he hear thing REL   heavy hence   heart   flutter-RED about
        'Because he heard something which was serious, so his heart raced as a result.'
                                                [D]

7.3.9.1 Manner prepositional phrases with *rot*

The preposition *rot* may also introduce manner adverbial phrases, allowing a broader range of manner expressions than are available through the closed class of adverbs. In a manner phrase, the complement of *rot* 'about' may be an adverb, such as *terir* 'exactly' in (96) or *deci* 'slowly' in (97), a nominal such as *oduy* 'front' in (98), or the interrogative word *tinefa* 'how', as in (99).

(96) *Mesta ekena eninma,   erogá dif di-ek   mar   **rot**   **terir**.*
      moon glow illuminate hence I   1SG-see thing about exactly
      'The moon was shining brightly, so I saw the thing clearly.'   [D]

(97) *Yoga   y-eker   osuj di-ejmeg   no-kef   **rot**   **deci-ci**.*
      you.DU DU-sit   upon 1SG-spine DNR-here   about slowly-RED
      'You (two) sit on my back now very carefully.'   [T23]

(98) *Ofa   en mar   **rot**   **oduy oyf-omof**.*
      s/he   do thing about front good-RED
      'He works happily.' (front good = pleased)   [D]

(99) *Ofa   ek jug   efer no-ma-i   esirn(a)   **rot**   **tínefa**.*
      s/he   see against child DNR-far-GIV   sick   about how
      'He examined in what way the child was sick.'   [T29]

When the interrogative word *midá* 'what' is the complement of *rot*, a manner phrase is not formed, rather the phrase *rot midá* expresses the interrogative notion 'why', as in (100).

(100) *Bua   bi-os   mofun   no-ma-i   **rot**   **midá**?*
       you.SG 2SG-sever vine   DNR-far-GIV about what
       'Why did you sever the vine?'   [T23]

7.3.10 The preposition *sof*

The preposition *sof* 'instead (of)' expresses the semantic role of replacive, as in (101). The preposition is frequently stranded, occurring clause-finally, but the complement is usually recoverable from the immediate context, such as *pas* 'rice' in (102), or from general knowledge, as in (103).

(101) *Ofa orka   taksi=kef   **sof**   dif.*
       s/he carry taxi=here instead   I
       'He is driving this taxi instead of me.'   [D]

(102) *Dif di-odow   pas; dif di-os-os   rot   di-et*
       I   1SG-disinclined   rice I   1SG-move.horiz.-RED   about   1SG-eat

       *muy   **sof**.*
       sweet.potato   instead
       'I'm not interested in rice; I want to eat sweet potatoes instead.'   [D]

(103)   *Bua   bi-ot   jig   m-i-egak   no-kef   **sof**.*
        you.SG   2SG-stand   LOC   NR-3PL-leg   DNR-here   instead
        'Wear these pants instead [of something else].' (stand in clothes = wear clothes)
                                                      [D]

7.3.11 *Dokun* as a preposition

It is a common strategy in languages for conjunctions and comitative adpositions to be identical (J. Payne 1985:29), so it is not surprising that the conjunction *dokun* 'and' also functions prepositionally to express the semantic role of comitative, as in (104) and (105), and may be glossed 'with'. The conjunction *dokun* quite possibly has its origins in the transitive verb *odokun* 'accompany' (*ot* 'stand' *okun* '(out)side').

(104)   *Ofa   eker   **dokun**   ofon   amok(a)   rohog   jig   mod.*
        s/he   sit   and   3SGPOS   friend   place.departed   LOC   house
        'He stayed behind with his friend at the house.'   [D]

(105)   *Ofa eker   jig mod   no-mis-i   **dokun**   ofon   mohena,   jera*
        s/he sit   LOC house   DNR-former-GIV   and   3SGPOS   wife   with

        ofon   m-iw-esa   tin.
        3SGPOS   NR-sib.s.s.-yg   also
        'He resided in that house with his wife, along with her younger sister also.' [T7]

7.4 Stranded prepositions

A preposition is stranded when there is no complement immediately following it. Cross-linguistically this is very rare (Van Valin 2001:88). The complement of the preposition is usually recoverable from the immediate context, such as the complement of *jig* in (106) is understood as *mow noki* 'this place' from the main clause, or in (107) it is understood to be *buwun bigak* 'your leg', the topic of the clause.

(106)   *Mow   no-ka-i   erá   oyf-omof   ni   i-er-ef   mesi   **jig**.*
        land   DNR-near-GIV   THM   good-RED   for   3PL-CAUS-distribute   taro   LOC
        'This place [it] is good for spreading (planting) taro in.'   [D]

(107)   *Buwun   bi-egak erá,   mohtef   eyet   **jig**.*
        2SGPOS   2SG-leg   THM   mud   adhere   LOC
        'Your leg, mud adheres to [it].'   [D]

A complement may be elided if it is understood from the context or from general knowledge, such as *bua* 'you.SG' elided in (108) and *mow* 'ground' elided in (109).

(108)   *Bua   bi-eg   mar   noga   mosu   odu   **gug**.*
        you.SG   2SG-hear   thing   REL   mother   tell   to
        'Listen (pay attention) to what [your] mother tells [you].'   [D]

(109)   *Ergog   y-es   miyefef   **kereng(a)**.*
        they.DU   DU-set   barter.cloth   upon
        'They set (displayed) the bartered cloth on [the ground].'   [D]

7.5 Prepositional notions expressed verbally

Prepositional notions are not limited to the class of prepositions, but may also be expressed verbally and nominally. A small group of transitive verb roots, compounds and phrases may function to express a prepositional relationship, both spatially, such as *esha* '(be away) from' in (110), and non-spatially, such as *er-esha* (CAUS-from) 'by means of' or 'via' in (111). These verbs are minor or secondary verbs in a complex predicate (§9.2) in which they are in a subordinate relationship to the major verb of the predicate.

(110)   *Ofa   ah   jig   **esha**   mafif*
        she   lie   LOC   from   wind
        'he laid on [a rack above the fire] away from the wind.'   [T27]

(111)   *Dif   di-en   esha   Sorong   **er-esha**   kawar[52]   miy.*
        I   1SG-come   from   Sorong   CAUS-from   vehicle   water
        'I came from Sorong via the ship.'   [D]

When verbal prepositions function as the minor verbs in a complex predicate, as does *osuj* '(be) upon' in (112) or *etkebra* '(be) short' in (113), spatial prepositions may co-occur to provide additional spatial reference of the complement.

(112)   *Ofa   ah   **osuj   jig**   merga   jig   miy   odog.*
        s/he   lie   upon   LOC   wood   LOC   water   belly
        'He was lying upon a tree on the water's surface.'   [D]

(113)   *Bua   bi-eyja   **etkebra   skod**   mek   no-ma-i   rot   deci-ci.*
        you.SG   2SG-go   short   to   pig   DNR-far-GIV   about   slowly-RED
        'Approach that pig slowly.'   [D]

Verbs expressing prepositional notions are also found in other Bird's Head languages, such as Meyah in the East Bird's Head (Gravelle 2004:199) and Moi and Tehit in the West Bird's Head (Reesink 1998:615).

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43 The word *kawar* 'vehicle' is an adaptation of the Malay word *kapal* 'ship'.

Chapter 8
The clause

8.0 Introduction

A clause, which is a minimal unit of complete information (Croft 1991:33), is a syntactic unit made up of a predicate, one or more core arguments and any optional peripheral arguments, all of which fall under a single intonation contour (cf. Givón 2001:355). Following Foley and Van Valin (1984:77), the predicate will be considered the nucleus of the clause, which is surrounded by the core, which consists of one or two arguments of the predicate, expressing the grammatical relations subject and object. These will be referred to as the core arguments and are those constituents of a clause which are dependent upon the predicate (cf. Foley and Van Valin 1984:79). Those constituents of a clause which are peripheral, that is nominal elements which do not have a grammatical relation to the predicate, are coded with prepositions. These peripheral arguments occur outside the clause core, that is, in the outermost layer of the clause. The peripheral arguments include nominals such as the locational and temporal settings, as well as other participants (e.g. beneficiaries, goals or instruments).

Moskona has two types of clauses: verbal and non-verbal. Verbal clauses are headed by transitive and intransitive predicates. Non-verbal clauses are headed by a non-verbal predicate. A minimal verbal clause may consist of a single predicate, as subject is obligatorily expressed as a pronominal prefix on the verb and reciprocal object may be expressed as a circumfix. Speech fragments or utterances, such as may be made in a response, like *ogurá* 'no' or *tinogurá* 'but not (so)' or *gug ofa* 'to him', do not contain a main predicate (and are frequently lacking some core arguments) and will not be considered as a complete clause, but rather as elements extracted from a larger context in which some parts are not expressed. Clauses discussed in this section are clauses with simple predicates. Complex predicates, which include serial verb constructions and emotional-state constructions, are discussed in Chapter 9, Complex predicates.

The chapter discussion begins with the frame position (§8.1), followed by a presentation of the order of clausal constituents (§8.2). Arguments are discussed in (§8.3), after which is a presentation of the two types of clauses, verbal clauses (§8.4.1) and non-verbal clauses (§8.4.2), with illustration of the various forms which each type takes.

8.1 Frame position

Moskona is predominantly a topic-prominent language[53], and thus has a topic or frame position which occurs preceding the clause core, that is, outside of the clause rather than within it (cf. Foley and Van Valin 1985:356). Foley and Van Valin (1984:125) refer to this position as pre-posed topic. Constituents of the frame provide a spatial, temporal or individual (thematic) framework within which the main predication holds (Chafe 1976:50, Haiman 1978:585). In addition to setting or background information, frame constituents limit the applicability of the main predicate to a restricted domain. A typical frame involves the pre-posing of an argument, but it need not have any "selectional relation" to the main predicate in the clause as do subjects, that is, a frame constituent need not have a corresponding anaphor or a grammatical relation to the predicate of the main clause (Li and Thompson 1976:462). The thematic frame noun phrase *miy, mek, mar noga ni irosotka* in (1) is not an argument of the predicate *owas* '(be) strong', nor is *isnok noga ufojok* in (2) an argument of the verb *edeses* '(be) many'.

(1)   ***Miy,   mek,   mar   noga   ni   i-er-osotka,***   *efer   owas   eseter.*
       cloth   pig   thing   REL   for   3PL-CAUS-marry   price   strong much.more
       'Cloth, pigs, things which are [used] for marrying, the price is very high.' [T16]

(2)   ***I-osnok   noga   i-ofojok***   *erá,   erin   marotot   em-edeses éra.*
       3PL-person   REL   3PL-poor   THM   3PLPOS goods   IRR-many   NEG
       'People who are poor, their possession are not many.'   [D]

As an indication of the syntactic disconnect of the topic and predicate, the speaker may begin a sentence or clause with a topic noun phrase, but choose a subject which does not agree in person and number with that of the topic, as in (3) in which *eri,* the third person plural free pronoun in the frame, does not agree in person and number with *mif*, the first person plural subject.

(3)   ***Eri   sis,***   *mif   mi-et   mofta,   mi-ok   misomoka,   tinogurá.*
       they.PL past   we.PL 3PL-eat sugar.palm   3PL-smoke cigarette   but.not
       'They [of] long ago, we drank palm beer, smoked cigarettes, but not (anymore).'
                                                                              [T22]

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[53]Moskona is a language which exhibits many of the defining characteristics of a topic prominent language as described by Li and Thompson (1976). These characteristics are seen in its syntactic coding for topic (§8.1), its lack of passive constructions (§8.4.1.1.3), lack of dummy subjects (e.g. semantically empty subjects like 'there' and 'it') (§8.4.1.2.1), the occurrence of "double" subjects (i.e. its topic and subject are not always co-referent) (§8.1.3), the ability of the predicate to function as a minimal clause (§8.4.1), the control which the topic exerts over co-referential constituent deletion (§8.1.3), and the lack of constraint on what may occur as topic (§8.1.3). However, it also exhibits the feature surface coding for subject (§8.3.1.1), which is found primarily in subject prominent languages.

All constituents of a frame are set off by a pause following the frame (symbolized by " /" in examples below and by a comma in subsequent examples). Those constituents whose canonical position follows the verb, such as the object argument *meri efi nomi* in (4), and all peripheral arguments are identifiable as constituents of the frame if they precede the verb. A noun phrase co-referent with the subject argument, which is already in clause-initial position, that is, it already precedes the verb, may also be recognized as a constituent of a frame if it is followed by a resumptive pronoun, such as the topic noun phrase *ejena nomi* in (5) is followed by the free pronoun *ofa*. Or a noun phrase co-referent with the subject may be recognized if it occurs preceding a temporal frame constituent, such as *bua* 'you.SG' precedes the temporal adverb *sokomow* 'beginning' in (6), or *dif* 'I' precedes *sis* 'past' in (7).

(4) *Edá* **meri** **efi** **no-ma-i**, /   *eri*   *i-er-ef*   *ni*   *merah*
     then tree.leaf leaf DNR-far-GIV   they.PL 3PL-CAUS-distribute on   fire

     jida aharga.
     until dry
     'Then, those leaves, they spread on the fire until dry.'   [T2]

(5) ***Ejena*** **no-ma-i**, /   *ofa ah   mesi   ebes.*
     woman DNR-far-GIV   s/he hack cassava cutting
     'The woman, she hacked up the cassava cuttings.'   [D]

(6) *Esha*, **bua**, / *sokomow, bi-ahawah fen   ayok   dokun ekok ...*
     from you.SG beginning 2SG-lazy   from mother and   father
     'The reason is, [as for] you, (if) at first, (you) are lazy with your mother and father ...'   [T26]

(7) *Dif,* **sis**, /   *di-em-(eb)ah   mod eges(a) ...*
     I   past   1SG-IRR-live   house high
     '[As for] me, long ago, (I) lived in a high house...'   [T14]

The constituents of a frame are noun phrases, adverbs, adverbials or phrases which are linked paratactically to the remainder of the clause. Neither independent or dependent clauses may fill the position of the frame, nor may the frame comprise a complete utterance (cf. Haiman 1978:573). However, frames may include embedded relative clauses, such as the relative clause *noga ihicen rot bar igak jig mow ekena nomi* in (8), which modifies the pronoun *eri*.

(8)   **Eri   noga i-ahisen rot   bar i-egak jig mow eken(a) no-ma-i**,
       they.PL REL   3PL-play about ball 3PL-leg LOC land red   DNR-far-GIV

       eri   i-ot   jig miyec   noga eke-kena   esis.
       they.PL 3PL-stand LOC clothes REL   red-RED   exclude
       'They who played football in the clearing, they wore only clothes which were
       red.' (stand in clothes = wear clothes)   [D]

In verbal clauses, the frame position may be filled by a temporal, locative, or thematic
frame. In non-verbal clauses, the frame position is filled by a topic followed by a non-
verbal predicate.

8.1.1 Temporal frames

Constituents of a temporal frame make explicit the temporal setting. The most common
constituents of a temporal frame are temporal adverbials, such as the temporal adverbial
phrase *mona ergem tas tin* in (9), the temporal phrase *kus nomi* 'short span (of time)' in
(10), or temporal adverbs, such as the temporal frequency adverbial *cergesis* in (11).
Constituents of a temporal frame are never co-referent with a constituent within the
clause.

(9)   **Mona ergem   tas   tin**, /   *ergog   y-éysaha kereng(a)...*
       day   NUM:1-CST again also   they.DU DU-reach   upon
       'Another time again also, they (two) happened upon ....'

(10)   **Kus   no-ma-i,**   *ergog   y-oduy okum jig ejena   noga   momha*
       short.span DNR-far-GIV they.DU DU-front heavy LOC woman   REL   insanity

       en   no-ma-i.
       do   DNR-far-GIV
       '[At] that time, they were upset with the crazy woman.'   [T23]

(11)   **C-erg-es-is**, /   *ofa ojgun.*
       ORD-NUM:1-one-RED   s/he cough
       'Frequently, he coughs.'   [T29]

Constituents of a temporal frame may also be introduced by a non-spatial preposition,
such as *ni* 'on' in (12) or the generic preposition *jig* 'LOC', as in (13).

(12)   **Ni mona** tas-men, /   *smen   mar erg-em* ...
       on   day   again-RED   perhaps thing NUM:1-CST
       'On a later day, perhaps another thing...'   [T27]

(13) **Jig   merahays(a)   sis   jog**, /   *ej-efer   no-ma-i   etkebra.*
LOC   Christmas   past   already female-child DNR-far-GIV   short
'In earlier years, the young woman was short.'   [D]

8.1.2 Locative frames

Constituents of a locative frame are noun phrases which may or may not be introduced by a preposition, forming the locative setting for the clause which follows, such as the phrase *mod efeg nomi* in (14), the phrase *mow nomi* in (15), or the phrase *mow ewes ergesis* in (16). If the complement of a preposition with a locative role is fronted, such as *maekena nomi* in (17), it leaves the preposition "stranded".

(14) *Edá,* **mod   efega   no-ma-i**,   *eri   i-en   maeken.*
then   house body DNR-far-GIV   they.PL 3PL-do   garden
'Then, [in] that yard, they made the garden.' (house body = yard)   [T3]

(15) **Mow no-ma-i**,   *marefew   ok-ok   eseter.*
land   DNR-far-GIV   plant.life small-RED   much.more
'[In] that place, the small plants were very many.'   [D]

(16) **Jig mow   ewes   erg-esis**,   *ofa   er-ef   mesnom   efej*
LOC land   cavity NUM:1-exclude s/he   CAUS-distribute corn   dried

et-om   esis.
NUM:3-three   exclude
'In each hole, she planted just three corn seeds.'   [TT]

(17) **Maekena no-ma-i**,   *yef   y-er-ef   mar efej   romreg*
garden   DNR-far-GIV we.DU DU-CAUS-distribute thing dried   all

jig   jog.
LOC   already
'The garden, we (two) already planted all the seeds [lit. dried things] in [it].'
[T23]

Only rarely does a prepositional phrase in a location frame have a co-referent NP in the following clause, such as *jig merga esta nomi* in (18) which is co-referent with the locative peripheral argument *jig nomi*.

(18) **Jig merga está no-ma-i**, /   *mem ers-(a)k   en-eker jig no-ma-i.*
LOC wood fork DNR-far-GIV   bird   NUM:6-two DUR-sit LOC DNR-far-GIV
'In the tree fork, there are two birds in that (place).'   [D]

8.1.3 Thematic frames

Although constituents of a thematic frame need not have a grammatical relation to the predicate of the following clause, most commonly, they are coreferent with a core argument or with a peripheral argument which has the semantic role of goal or recipient. The role of the frame constituent is understood by the gap which occurs in the clause, indicating the relationship of the frame constituent to the clause, or by a co-referent pronoun occurring within the clause. (A gap is an omitted argument which the speaker understands the hearer to know either from the context or from previous reference.)

The topic NP, co-referent with the subject pronoun, may be a simple noun phrase, such as *memned* in (19), a coordinate noun phrase, such as *dif dokun dadin amok* in (20), or a much more complex construction, such as *yeferiok yergak nomi fen ejena noga oyfomof nomisi* in (21), in which a prepositional phrase modifies a noun phrase.

(19)   *Tiná,* **memned,** *ofa odow.*
      but   cockatoo   s/he disinclined
      'But the cockatoo, he was disinclined (to do it).'   [T5]

(20)   **Dif dokun dadin amok,** *yef y-ofof y-er-em-etejen-ima.*
      I   and   1SGPOS friend we.DU DU-run DU-CAUS-RECIP-compare
      'I and my friend, we run competing against each other.'   [D]

(21)   **Y-eferiok y-erg-ak   no-ma-i   fen   ejena   noga oyf-omof**
      DU-sm.child DU-NUM:1-two DNR-far-GIV from woman REL   good-RED

      no-mis-i,   *ergog y-esisga jug...*
      DNR-former-GIV they.DU DU-ask against
      'The two kids from the woman who was sane, they questioned .....'   [T23]

Constituents of a thematic frame may be co-referent with an object argument, such as the noun phrases *muy ebah* 'raw sweet potatoes' in (22), *mar noki* 'these things' in (23) and *efer ohur nomi* 'the newborn' in (24).

(22)   **Muy   ebah ros,** *i-osnok i-em-et   ér(a) nom.*
      sweetpotato raw   still 3PL-person 3PL-IRR-eat NEG   VER
      'Still raw sweet potatoes, people can't eat.'   [D]

(23)   **Mar no-ka-i,**   *mifin   m-edin(a)-ir   noga sis, eri   osot*
      thing DNR-near-GIV 1PLPOS NR-grandpar.-PL REL   past they.PL count

      gug   mif
      to   we.PL
      'These things, our grandparents who [lived] earlier, they recounted to us.'
                                                 [T10]

(24) **Efer ohur no-ma-i**,   *ofon   mosu   or   miyes   er-okuk   ofa.*
      child bare DNR-far-GIV 3SGPOS mother hold   clothes CAUS-roll.up s/he
      'The bare child (newborn), his mother wrapped him up with the clothes.' [D]

When an indirect object has been topicalized, it may strand the preposition, as in (25), in which the topicalization of the complement *efer nomi* 'that kid' leaves the preposition *gug* 'to' stranded. Goals which are pre-posed are never introduced with a preposition.

(25) **Efer no-ma-i,**   *mif   mi-esij   mar **gug,** tiná   ofa   eba*
      child DNR-far-GIV   we.PL 1PL-talk.about thing to   but   s/he   refuse

      rot   mi-ogá   gijga.
      about   1PL-speech only
      'That kid, we spoke to (him), but he just refused our message.'   [D]

8.1.4 Frame constituents marked as thematic elements

The thematic morpheme *erá* 'THM' follows the constituent which the speaker wishes to assert as an element which is crucial in a narrative or discussion. Constituents of a temporal, locative or thematic frame may be marked as thematic elements. For example, the thematic frame NP *isnok noga igos jog* in (26), the temporal adverbial *tisef* in the temporal frame in (27), and the locative frame constituent *modok* in the second clause in (28) are followed by *erá* to mark them as thematic elements. The pause which always follows a frame (indicated here by a '/ '), occurs following the thematic marker[54].

(26) *I-osnok   noga i-ogos   jog   **erá,/** erin   i-efega   etefa.*
      3PL-person   REL 3PL-die already THM   3PLPOS 3PL-body wet
      '[As for] the people who have died already, their bodies are wet (decomposed).'
                                                                              [D]

(27) *Tisef **erá** /   mif   mi-em-eyja ni mi-ah-miy   mojum éra.*
      today THM   we.PL 1PL-IRR-go   for 1PL-lie-water-bathe ocean   NEG
      '[As for] today, we won't go to bathe (swim) in the ocean.'   [D]

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[54] The speaker's intent to highlight a thematic participant, signaled by the thematic marker, is handled with loudness, timing and pitch in spoken English.

(28)   *Jig kota, eri   i-or   mod fen   semen, tiná jig modok*
        LOC city they.PL 3PL-build house from cement but   LOC mountain.area

        erá / i-or   merga oforga   gijga.
        THM 3PL-use wood   hardened only
        'In the city, they build houses from cement, but in the mountains, just wood is
        used.'   [D]

If a thematic frame constituent is marked as a thematic element, the co-referent subject,
that is, the resumptive pronoun is never marked.

8.1.5 Multiple frames co-occurring

Multiple frames may occur preceding a single clause if more than one piece of
background information is necessary, as in the introductions and conclusions of
narratives. Multiple frames typically occur in the order: temporal frame, location frame,
thematic frame, as in (29), although the order may be inverted, as in (30). More than one
temporal frame may occur, as in (30) and (31). Two thematic frames may occur, as in the
clause in (32), which concludes a narrative.

(29)   ***Kus   no-ma-i   tin,   Miy Isudga está*** *erá, ejewjen(a)*
        short.span DNR-far-GIV also water Isudga fork THM young.woman

        oyf-omof...
        good-RED
        '[At] that time also, [at] the fork of the Isudga River, a pretty young
        woman...'   [T27]

(30)   ***Dif, sokomow, kus   noga di-eferiok***   *erá, dadin ekok   dokun*
        I   beginning short.span REL 1SG-small.child THM 1SGPOS father and

        ayok   y-ohot gug dif...
        mother DU-say to   I
        'I, long ago, [during] the time I was a small child, my father and mother said to
        me...'   [T26]

(31) **Sokomow, kus   noga mahti** *erá,* **memned dokun mohus** *erá,*
      beginning short.span REL legend THM cockatoo and   parrot THM

ergog   y-ebah jig   mod erg-es.
they.DU DU-live LOC   house NUM:1-one
'Long ago, [during] a legendary time, the cockatoo and the parrot, they lived in
one house.'   [T5]

(32) **Mar no-ka-i,   mifin m-edin(a)-er noga sis,**   *eri   i-osot* ...
      thing DNR-near-GIV 1PLPOS NR-gdparent.-PL REL   past they.PL 3PL-count
      'These things, our ancestors who were [of] long ago, they recounted ....'' [T10]

8.2 Clause constituent order

Moskona has a rigid SVO word order, which although atypical of the order associated
with most Papuan languages (cf. Foley 1998:513), is a typical feature of East Bird's Head
languages (Reesink 1998:604). The word order of the clause in Moskona, like other
Bird's Head languages, may not have always been SVO, but rather the SOV order which
is more prevalent in Papuan languages (Dunn, et al 2002:58, Reesink 2002c:247)[55]. Word
order has primarily a grammatical value, that is, word order is a major coding device
which functions to distinguish by relative position the three most common elements of
verbal clauses, the verb, the subject argument and the object argument. Morphological
marking (indexing of subject on the verb) supports this coding.

In the canonical order for simple clauses, the subject occurs pre-verbally and object post-
verbally. Verb-phrase adverbs (VP-ADV) follow the object argument, preceding any
peripheral arguments (PERI), which are expressed by prepositional phrases. Temporal
adverbials (T-ADV) occur following peripheral arguments (PERI) and preceding clause-
final adverbs. The constituent CF-ADV (clause-final adverbs) also includes negation
adverbs. The basic order of constituents for a simple verbal clause may be summarized
as:

(FRAME)(SUBJ) Verb (OBJ) (VP-ADV)(PERI)(T-ADV)(CF-ADV)

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[55] Some evidence for this previous order exists in the form of a vestigial pronominal prefix in two variations of
a syntactically frozen imprecative: *Meg bi-ed bua!* (large.creature 2SG-strike you.SG) 'May a large creature get
you!' and *Meeki bi-ed bua!* (cassawary 2SG-strike you.SG) 'May a cassowary get you!'. The constituent
structure appears to be S s-o-V O. The third person singular subject is cross-referenced on the verb with ø- a
null morpheme. Second person singular object is indexed with the verbal prefix *bi-*. The free pronoun *bua* is
also given as object, a possible concession to current argument referencing. In Moskona, with the exception of
the reciprocal circumfix, there are no extant pronominal affixes indexing object.

Constituents given in parenthesis are optional satellites. The constituent order of a verbal clause is illustrated in (33) for transitive clauses and in (34) for intransitive clauses. It is unusual for simple clauses to contain more than four optional constituents.

(33) *Dif di-em-eyj   mar   no-kef   nes(a)-is   gug bua   se.*
      I   1SG-IRR-toss thing DNR-here   quickly-RED   to you.SG   certainly
      'I will certainly toss the thing to you very quickly.'   [D]

(34) *Dif dadin   eri-orna   i-ebah jig mow no-kef   sis   jog.*
      I   1SGPOS   they.PL-man   3PL-live LOC land DNR-here   past   already
      'I my ancestors already lived in this area previously.' (my men = my ancestors)   [T18]

8.3 Arguments

8.3.1 Core arguments

Core arguments as constituents of a clause are selected by the verb and are the basic conceptually necessary arguments of the verb (Foley & Olson 1985:24). Only noun phrases (§6.0) or an element which anaphorically refers to a noun (§3.0) may fill the position of a core argument. The grammatical relation of a core argument may be determined by its position in relation to the predicate, that is, subjects precede the predicate and objects follow. Core arguments may be distinguished from peripheral arguments syntactically by the absence of an introductory preposition.

8.3.1.1 Subject arguments

The two main coding devices in Moskona which indicate the grammatical relation subject for transitive and intransitive predicates are word order and cross-referencing. Subject is obligatorily expressed by a pronominal prefix (§5.1.5) which is co-referent with the subject, marking the verb for the person and number of the subject. Word order indicates that the subject, such as the noun phrase *mofun ofoga* 'pointed vine' in (35) or personal pronoun *eri* in (36), occurs pre-verbally. The subject commonly has the semantic role of agent, that is, the one doing or causing something, in verbal clauses.

(35) **mofun ofoga**   *ocig(a) dif*
      vine   pointed   affect   I
      'a pointed vine struck me'   [D]

(36) **eri**   *i-ohsud(a)   meri   efi   noga otoh.*
      they.PL   3PL-search.for tree.leaf leaf   REL   wide
      'they searched for leaves which were wide.'   [T2]

A subject argument, such as *buwun mokesa* in (37), may be marked as a thematic element with *erá* 'THM'.

(37)   **Buwun m-ok-esa**   *erá* *en-ebah*   *hádefa?*
        2SGPOS NR-sib.s.s.-yg   THM   DUR-live   where
        'Where is your younger brother?'   [T7]

It is the presence of the obligatory pronominal prefix on the verb which allows a subject to be signaled without being expressed lexically in the clause, and thus the lexical reference to the subject may be omitted once introduced by a noun phrase. The sentence in (38) introduces a narrative. The topic/subject as the personal pronoun *dif*, has been introduced in the first clause, but is omitted in subsequent clauses, as the first person singular prefix *di-* '1SG' on the verbs *en* 'do' and *ebi* 'defecate' express the subject.

(38)   *Dif, sis,* **di-**em-(eb)ah *mod* *eges, edá* **di-**en *mar mosorka, edá*
        I   earlier 1SG-IRR-live   house high then   1SG-do thing toilet.hole then

        di-em-ebi   *jig*   *mosorka ...*
        1SG-IRR-defecate   LOC   toilet.hole
        'I, long ago, (I) lived in a high house, then (I) made a toilet hole [in the floor],
        then (I) defecated in the toilet hole ....'   [T14]

The subject may also be omitted if understood from context and the selectional restrictions imposed by the verb. For example, the object argument *ager* 'birdshot' in the first clause in (39) is the subject, (marked by third person singular, a null morpheme) of the detransitivized verb *osorsef* 'liquify' in the second clause, which is linked by *edá* 'then'.

(39)   *Ofa esah ager   jig merah, edá   osors(a)=ef.*
        s/he put birdshot LOC fire   then   liquify=near
        'He put the birdshot in the fire, then (it) liquified (melted).'   [D]

8.3.1.2 Object arguments

The object argument, such as the object *mar-mosorna* 'food' in (40) and *mod efena* 'new houses' in (41), is morphologically and syntactically unmarked, thus coded by linear order only. The typical semantic role of the object argument is patient, that is, it is the participant being affected by the action.

(40)   *Dif di-esejah*   **mar-mosorn(a)** *dekikir*   *ni*   *dadin   i-osnok.*
        I   1SG-prepare thing-hunger   in.expectation for   1SGPOS 3PL-person
        'I prepared food for my relatives in anticipation (of their arrival).' (my people =
        relatives)   [D]

(41)   *Mif   mi-oyka   mi-or   **mod efena***
        we.PL 1PL-dance 1PL-build   house new
        'We danced [and] built new houses.'   [T14]

Once the referents of object noun phrases have been introduced by a noun phrase in the
initial clause of a paragraph, they may be omitted from subsequent clauses. For example,
in (42) the object NP *mogos nomi* 'the snake', which has been introduced in the initial
clause, is the implicit object of the transitive verbs *ok* 'bear', *egeja* 'slit open', *oyna*
'cook' and *et* 'eat' in subsequent clauses.

(42)   *Edá   eri   i-ahac   **mogos   no-ma-i**.   Eri   i-ok,   i-owha*
        then   they.PL 3PL-tie   snake   DNR-far-GIV   they.PL 3PL-bear 3PL-leave

        rot   jig   mod, edá   i-egeja   oys-omusa. Edá   eri   i-oyna
        about   LOC   house then 3PL-slit.open finish-RED   then   they.PL   3PL-cook

        jig   mosha jida   efieyj-a.   Edá,   eri-orna   gijga erá
        LOC   k.o.tree until ready.to.eat-PGE then   they.PL-man only   THM

        i-en-et.
        3PL-DUR- eat
        'Then they tie up the snake. They carry (it), going to their house, then they gut
        (it). Then, they cook (it) in a *mosha* (bark tub) until it's done. Then, only the
        adult men eat (it).'   [T4]

8.3.2 Peripheral arguments

Peripheral arguments (§7.0), with the notable exception of *mogum*, are introduced by
prepositions to express their semantic role, a necessity as the semantic function of a core
argument can be predicted from the selectional restrictions of the verb, but the semantic
function of peripheral arguments cannot. Peripheral arguments, such as *bua* 'you.SG' in
(43) and *merga* 'wood' in (44), are distinguished by prepositional coding from temporal
adverbials, which also occur outside the clause core. Peripheral arguments, their roles and
the prepositions which mark their roles are discussed separately in chapter 7.

(43)   *Edá,   eri   susuy no-ma-i   i-em-eyta   mar **gug bua**   éra.*
        then   they.PL else   DNR-far-GIV   3PL-IRR-take thing to   you.SG NEG
        'Then, those other people will not give things to you.'   [T26]

(44)   *Bua   bi-osok   **tum   merga** nom=ey?*
        you.SG 2SG-climb.up onto   wood   VER=Q
        'Can you climb up the tree?'   [D]

The reciprocal pronoun *mogum* '(to/with/from) each other' (§5.1.1) with a semantic role of goal, recipient, source or comitative has a unique status, as it is the only element serving as a peripheral argument which is not introduced by a preposition. The subject and reciprocal participant are co-referent and have conceptually merged by association, conferring core status on the reciprocal pronoun. It occurs in the same position as other peripheral arguments, that is, it follows object arguments, such as *mogum* follows *mar* 'thing' in (45) and *miyes* 'clothes' in (46).

(45)   *Y-orna y-erg-ak   no-ma-i   y-esij   mar   **mogum**.*
        DU-man DU-NUM:1-two DNR-far-GIV   DU-talk.about thing each.other
        'Those two men discussed something with each other.'   [T22]

(46)   *Eri   i-er-eg   miyes   **mogum**.*
        they.PL 3PL-CAUS-trade clothes each.other
        'They traded clothes with each other.'   [D]

8.4 Clause types

Clause types are determined by the type of predicate employed. As there are two basic types of predicates, verbal and non-verbal, clauses will be discussed in these terms. Verbal clauses are headed by either transitive or intransitive predicates. Transitive predicates may be headed by a transitive verb or a possessor verb. Intransitive predicates may be headed by regular intransitive verbs, detransitivized verbs, adjectival verbs or quantifier verbs. Intransitive predicates, headed by intransitive verbs, also include a group of classificatory verbs, functioning as existential constructions. Non-verbal clauses are headed by non-verbal predicates, which may be a nominal predicate, such as a noun phrase or headless relative clause, or they may be a numeral, demonstrative, adverb or interrogative word.

8.4.1 Verbal clauses

8.4.1.1 Transitive predicates

Transitive predicates minimally take two core arguments, a subject (typically as agent) and an object (typically as patient), such as the transitive verb *orka* 'carry' with the subject *ofa* 's/he' and object *medeg* 'bamboo' in (47) or the transitive verb *ey* 'weave' with the subject *mewjef* 'biting ants' and object *efem* 'nest' in (48).

(47)   *ofa   **orka**   medeg*
        s/he   2SG-carry bamboo
        'he carried (brought) the bamboo.'   [T23]

(48)   *Mewjef* **ey**   *efem jig   mow ewes.*
          biting.ants weave   nest   LOC   land   cavity
          'Biting ants build nests in holes in the ground.'   [D]

A minimal transitive predicate consists of a transitive verb inflected for subject with an implicit object, such as *ohsuda* 'search for' in (49) is inflected for first person singular subject with *di-* '1SG' with the object (it) understood. A minimal transitive verb may also be a verb inflected for subject and reciprocal object, such as the transitive verb *obuy* 'beat' in (50), marked for subject with *i-* '3PL' and marked for object with the circumfix *em- -ima* 'RECIP', the only affix which marks an object.

(49)   **Du-ohsud(a)**, *tiná   di-em-ek   éra.*
          1SG-search.for but   1SG-IRR-see   NEG
          'I searched for (it), but didn't see (it).'   [T23]

(50)   *I-er-em-**obuy**-ima.*   [uɾomóbujma]
          3PL-CAUS-RECIP-beat
          'They beat each other (with something).'   [D]

8.4.1.1.1 The transitive verb *eyta*

The semantically complex transitive verb *eyta* 'take/give' involves an item (the object argument) being transferred, but may involve two opposite directions of movement: the object moving toward subject (i.e. take), as in (51), or object moving away from subject (i.e. give), as in (52). The transitive verb *eyta* 'take' may also be translated 'get' or 'receive' when the object moves toward the subject, as in (53). The transitive verb *eyta* obligatorily involves two core arguments, and optionally a third peripheral argument, which has the role goal or recipient. The presence of the indirect object, marked with the non-spatial preposition *gug* 'to', signals the direction of the movement away from the subject, yielding the meaning 'give'. In a transitive clause governed by the verb *eyta*, the subject always has the semantic role of agent.

(51)   *Bua   bi-**eyta** dadin   pensil   e-no-ma-i=ey?*
          you.SG   2SG-take 1SGPOS   pencil   FOC-DNR-far-GIV=Q
          'Did you take that particular pencil of mine?'   [D]

(52)   *Ofa   **eyta**   keradi   gug ofon   efer*
          s/he   take   work   to   3SGPOS   child
          'He gave work to his child.'   [T27]

(53)   *Dif di-eduec   efer   no-ma-i   gug   i-osnok   susuy*
       I   1SG-trade.child   child   DNR-far-GIV   to   3PL-person other.kind

       *ni   di-er-**eyta**   miy-a.*
       for   1SG-CAUS-take   cloth-PGE
       'I traded the child to other kinds of people (outside of the clan) to get cloth.'
                                                                              [D]

The transitive verb *eyta* 'take' may be used abstractly to mean 'do (something)' or 'commit an act', as in (54).

(54)   *Bua   bi-em-**eyta** mar   no-ma-i   ér(a) nom!*
       you.SG   2SG-IRR-take   thing   DNR-far-GIV   NEG   VER
       'You couldn't have done that!'   [D]

8.4.1.1.2 Predicative possession

The possessive pronouns, presented in (§5.1.2), may function predicatively. The possessive pronouns appear to have been originally a construction composed of a personal pronoun form, a pronominal prefix and a possessive verb *en*. In the first person singular possessive pronoun *da-d-en* '1SGPOS' or 'my', the two initial morpheme fragments *da-* and *d-* correspond to the extant personal pronoun *dif* 'I' and singular pronominal prefix *di-* '1SG' respectively. However, there is no longer a transitive verb, such as *en,* meaning 'have' or 'possess'. Although there are numerous similarities to extant personal pronouns and pronominal prefixes in the possessive pronouns, they are not identical, as the possessive forms have become highly fused.

The possessive construction has a structure which is similar to transitive clauses headed by a transitive predicate, consisting of a pre-verbal subject, a verb, and a post-verbal object, such as *mif romreg mifmin medina* in (55), with *mif*, the subject, *mifmin* the verb, and *medina* the object. Within a NP, as a constituent of a subject argument, the possessive pronouns function as modifiers of the noun head, as in *mod ofon mog nomi* (house 3SGPOS wall that) 'the house's walls'. However, when the possessive pronouns are used predicatively, as in *mod nomi ofon mog* (house that 3SGPOS walls) 'the house has walls', the possessor is the subject and the possessed the object. When the possessed in a predicative possession construction is relativized (§10.1.4.2), the possessed is extracted to precede the relativizer, leaving the possessive pronoun stranded, a construction similar to that of relativized object arguments.

As possessor verbs, the possessive pronouns agree with the subject in person and number, such as *erin* in (56) expresses '3PL', but possessor verbs are not inflected with a pronominal prefix (§5.1.5) which indexes subject on verbs, but rather reflect the fused form.

(55)   *Mif romreg **mifmin** m-edina,   Adam dokun Hawa.*
    we all   1PLPOS grandparent Adam and   Eve
    'We all have the ancestor(s), Adam and Eve.'   [D]

(56)   *I-osnok   jig mow no-ma-i   **erin**   mod efeg   erg-om.*
    1PL-person LOC land DNR-far-GIV   3PLPOS house ANIMAL NUM:1-three
    'The people in that place have three houses.'   [D]

Because adjectives are also verbal, context is necessary for interpretation of the function of some possessive pronouns. The possessive pronoun may be attributive, such as *ofon* '3SGPOS'in (57) modifies *ebrot*, with *mekrus* 'deer' the NP possessor, *ebrot* 'horns' the subject, and *etkebra* 'short', functioning predicatively, yielding the meaning 'the deer's horns are short'. Or a possessive pronoun may be interpreted as predicative, if in (57) the subject is *mekrus* 'deer', and the object is *ebrot* modified by the adjectival verb *etkebra*. In similar fashion, the possessive pronoun *dadin* in (58) may be interpreted as predicative, with the adjectival verb *ahabnina* standing in the position of the noun head, or it may be interpreted as attributive, with the possessive pronoun itself standing in the position of the noun head.

(57)   *Mekrus **ofon**   ebrot etkebra.*
    deer   2SGPOS   horn   short
    'The deer's horns are short.' or 'The deer has short horns.'   [D]

(58)   *Dif **dadin**   ahabnina.*
    I   1SGPOS few
    'I have few (things).' or 'My (things) are few.'   [D]

When they are negated, possessor verbs, such as *dadin* '1SGPOS' in (59) and *erin* '3PLPOS' in (60), do not attach the irrealis prefix *em-* 'IRR', as is obligatory for negation of transitive verbs.

(59)   *Dif **dadin**   mar erg-em   jig mar ofokca   no-ma-i   éra.*
    I   1SGPOS thing NUM:1-CST LOC thing gather   DNR-far-GIV   NEG
    'I don't have anything in that collection of stuff.'   [D]

(60)   *Eri   **erin**   mow erg-em   tin ni i-eker   kerenga jig éra.*
    they.PL 3PLPOS land NUM:1-CST also for 3PL-sit   upon   LOC NEG
    'They don't even have any place to rest in.' (sit upon = rest)   [TT]

When a noun phrase having a possessive pronoun as a constituent is negated, the possessive pronoun is likewise unmarked for irrealis, that is, not marked with *em-* 'IRR'. For example, in the non-verbal clause in (61), the non-verbal predicate NP *buwun mahina*, negated by the negative adverb *éra*, is unmarked.

(61)   *Orna erg-es   noga bua   bi-eker jera kus   no-kef   erá,*
    man   NUM:1-one REL   you.SG   2SG-sit   with   short.span   DNR-here   THM

    buwun *mahina éra.*
    2SGPOS   husband NEG
    'The man who you live with right now, [he] is not your husband.' (lit. your husband is not)   [TT]

8.4.1.1.3 Non-referential predicates

In instances when the agent is out of focus, Moskona uses a non-referential third person plural subject as a means to background the agent. This use is analogous to constructions in English which use the third person plural pronoun 'they' non-referentially or constructions in French which use the indefinite pronoun *on* '(some)one'. In a non-referential predicate construction, the agent is expressed only by the third person plural pronominal prefix *i-* '3PL' attached to a transitive verb, such as *i-* attached to *eref* 'caused to distribute' meaning 'plant' in (62).

(62)   *Mow no-ka-i   erá   oyf-omof ni   **i-er-ef**   mesi jig.*
    land   DNR-near-GIV   THM   good-RED   for   3PL-CAUS-distribute taro   LOC
    'This place is good for planting taro in.'   [T29]

Moskona uses non-referential predicate constructions as a means to foreground the object/undergoer, but without promoting the undergoer to subject status as do passives (cf. Keenan 1985a:247). To make the undergoer/object prominent, it is fronted, as is *mar noga oskayt* in (63), *mitos okow* in (64) or *mecif* 'nettle leaf' in (65), but with a verb which is marked with *i-* '3PL' functioning non-referentially.

(63)   *Mar noga oskayt erá   **i**-em-ek   okuk orokec.*
    thing   REL   small   THM   3PL-IRR-see   like   large
    'Things which are small are seen as large.'   [T29]

(64)   *Mitos okow erá   **i**-engit   fen   karmom.*
    pot   base   THM   3PL-make   from   thick.metal
    'The pot's base was made from heavy metal.'   [D]

(65)   *Mecif   **i**-er-or   i-owos   ahda.*
    nettle.leaf   3PL-CAUS-hold   3PL-skin   irritate
    'Nettleleaf is used (on) their skin [so] (it) irritates (it).'   [D]

8.4.1.2 Intransitive predicates

Intransitive predicates take only one core argument, a subject. For regular intransitive predicates, such as *ofof* 'run' or *éysaha* 'reach' in (66), the subject has the semantic role of agent. For detransitivized predicates (§3.2.2.3.2), such as the detransitivized verbs *oyngoyngif* 'wrinkled' in (67) and *ahadéf* 'release' in (68), the subject has the semantic role of patient/undergoer.

(66)   *Ofa* **ofof** *nes-is*   *esha ni* **éysaha** *sokomow jig miy   efembra.*
         s/he   run   quickly-RED from for reach   beginning LOC water flank
         'He ran very quickly in order to arrive first at the water's edge'   [D]

(67)   *Miyes   no-ma-i   **oyng-(o)ing=i-(e)f**.*
         clothes DNR-far-GIV   fold-RED=VIS-near
         'Those clothes are wrinkled.' (i.e. folded multiple times)   [D]

(68)   *Mofun   no-ma-i   **ahad(a)=ef**   *fen   merga.*
         vine   DNR-far-GIV   dismantle=near   from   wood
         'The vine (rope) released from the tree (branch).'   [T18]

A minimal intransitive predicate may consist of a single verb, such as the intransitive verb *ogor* 'cry in distress' in (69) or *eskijig* 'agree' prefixed for subject with *i-* '3PL' in (70).

(69)   *Mek-sapi   **ogor**.*
         pig-cow   cry.in.distress
         'The cow lows.'   [D]

(70)   *Eri   i-em-eskijig.*
         they.PL   3PL-IRR-agree
         'They would agree.'   [T22]

8.4.1.2.1 Atmospheric events

Expression of states or events commonly denoting natural or atmospheric phenomena (e.g. the weather) is primarily through an intransitive predicate. The instigating subject, such as the rain (71), the sun (72) or the moon (73), is always an inanimate object. Dummy or empty subjects, like 'it' or 'there', such as are found in subject prominent languages, are not used in expressing a natural or atmospheric event. This feature is typical of topic prominent languages (Li and Thompson 1976:467).

(71)   *Mas   es.*
        rain   spray
        'It is raining.'   [D]

(72)   *Maw   efi.*
        sun   sharp
        'The sun is hot.' (lit. sun is sharp)   [T27]

(73)   *Mesta   ekena.*
        moon   glow
        'The moon shines.' (lit. moon glows)   [D]

8.4.1.2.2 Experiential physical states

Experiential or physical states may be semi-controlled or uncontrolled. Experiential physical states, which are semi-controllable, such as being sick (74), thirsty (76), hungry (77), chilled (78), wet (75) or hot (79), are expressed as intransitive verbs, attaching the same pronominal prefixes which express subject on all verbs. The subjects of intransitive predicates expressing an experiential physical state are patients, that is, the entity being affected.

(74)   *Bua   bi-esirn(a).*   (75)   *Dif di-ete-tef.*
        you.SG   2SG-sick   I   1SG-wet-RED
        'You are ill.'   'I'm all wet.'

(76)   *Mif   mi-ogorn(a).*   (77)   *Yef   y-osorn(a).*
        we.PL   1PL-thirst   we.DU   DU-hunger
        'We are thirsty.'   'We (two) are hungry.'

(78)   *Mif   mi-efirna.*   (79)   *Dif di-efenen*
        we.PL 1PL-chilled   I   1SG-hot
        'We were chilled.'   'I am hot.'

To express an uncontrolled state, reflecting an involuntary experience, such as a non-volitional entity, like physical illness or disability, acting on an animate one, (i.e. a human), the transitive verb *en* 'do' marked for third person singular is employed to indicate affectedness, as in examples (80 - 87). Inanimate or non-volitional entities functioning as actor or agent are a common way of expressing uncontrolled states in Papuan languages (Foley 1986:122, 127). This expression is unlike the other East Bird's Head languages Sougb (Reesink 1998:621; 2002b:208) and Meyah (Gravelle 2004:227) which have a special class of morphologically complex experiential verbs to express these notions.

(80)   *Moj   en   dif.*
        shame   do   I
        'I am ashamed.'

(81)   *Moros   en   eri.*
        lameness do   they.PL
        'They are crippled.'

(82)   *Momha en ofa.*
        insanity do s/he
        'He is crazy.'

(83)   *Mok(eb)ah   en   ofa.*
        tree.spirit   do   s/he
        'He has convulsions.'

(84)   *M-i-esirn(a)   en   yua.*
        NR-3PL-sick   do   you.PL
        'Sickness struck you.'

(85)   *Mekek   en   bua.*
        skin.fungus do   you.SG
        'You have a skin fungus.'

(86)   *M-efer en   mif.*
        NR-sore do   we.PL
        'We are afflicted with sores.'

(87)   *Osuy otuy   en   ofa.*
        ear   tight.packed do   s/he
        'He is deaf.'

8.4.1.2.3 Existential predicates

Many Papuan languages possess a covert nominal classification system in which entities are categorized according to the different verb roots through which they express the concept of existence (Foley 1986:88, Lang 1975), but in the languages of the East Bird's Head, only Moskona and Meyah (Gravelle 2004:223) utilize a set of existential classificatory verb roots, as posture verbs do not appear to function existentially in Sougb (Reesink 2002b:202). These classificatory verbs in existential verb constructions may occur as presentative constructions, yielding a meaning equivalent to 'there is/are'. Thus, the existential expression for a particular entity always occurs with one of these verbs.

The classificatory verbs in Moskona are the posture verbs *eker* 'sit', *ot* 'stand' and *ah* 'lie', and the intransitive verb *ebah* 'live'. They categorize animate and inanimate entities into four subclasses roughly on the basis of animateness, size and perceived physical orientation:

> i) Humans are categorized by the classificatory verb *ebah* 'live'.

> ii) Animate entities, such as birds small or mammals which have a smaller body size, are lower to the ground and are perceived to have a vertical orientation, are classified by the classificatory verb *eker* 'sit

> iii) Animate and inanimate entities which are larger and perceived to have vertical orientation, including larger mammals, trees, houses (which are perceived to have legs), mountains and even celestial bodies, are categorized by the classificatory verb *ot* 'stand'.

iv) Animate entities which are perceived to have horizontal orientation
(and thus closest to the ground), such as snakes or lizards, and insects,
as well as all smaller inanimate entities, are categorized by the
classificatory verb *ah* 'lie'.

The physical orientation of the posture verb and the classified entity's actual physical
orientation do not always match, as many times all that remains of the original meaning
component of position is a generalized existential meaning (cf. Early 2000:86). The
nominal categories may be observed with the classificatory verbs in:

Classificatory verb *ebah* 'live'

(88)   *I-osnok   noga i-ofogog   no-ma-i   i-**ebah** jig   i-ba.*
      3PL-person REL   3PL-evil   DNR-far-GIV   3PL-live LOC   VIS-across
      'Those people who are evil are over there.'   [D]

(89)   *Ergog   y-en-**ebah**=kef.*
      they.DU 3DU-DUR-live=here
      'They (two) are here.'   [D]

Classificatory verb *eker* 'sit'

(90)   *Mem en-**eker** jig merg(a) está   i-da=eyj(a).*
      bird   DUR-sit LOC wood   fork   VIS-up=THITHER
      'There is a bird is in the tree fork up there.'   [D]

(91)   *Misi   ofon   efer en-**eker** jig ofon   efema.*
      bandicoot 3SGPOS child DUR-sit LOC 3SGPOS pouch
      'The bandicoot's young are in its pouch.'   [D]

Classificatory verb *ot* 'stand'

(92)   *Merga noga **ot**   jig no-mej   erá   aksa eseter.*
      wood   REL   stand LOC DNR-remote THM tall   much.more
      'The tree which is over yonder is very tall.'   [D]

(93)   *Dif di-ek   motur ognunui   **ot**   jig meybaga.*
      I   1SG-see star   many   stand LOC sky
      'I saw many stars in the sky.'   [D]

Classificatory verb *ah* 'lie'

(94)   *Mogosa erá **ah** jig   mogom ewes.*
        snake   THM lie LOC stone   cavity
        'There are snakes in the rock crevasses.'   [D]

(95)   *Dif dadin   mok **ah** hádefa?*
        I   1SGPOS bowl lie where
        'I my bowl is where?'   [D]

When classificatory verbs occurring in existential verb constructions, such as *ebah* 'live' in (96) and *ah* 'lie' in (97), are negated, the irrealis prefix *em-* 'IRR' is obligatorily attached to the verb root.

(96)   *I-osnok   meren i-em-**ebah** néesa*
        3PL-person lake   3PL-IRR-live not.yet
        'there weren't yet many people'   [T19]

(97)   *Moroj   erg-es   em-**ah** éra.*
        path   NUM:1-one   IRR-lie NEG
        'There wasn't a path.'   [D]

8.4.1.2.3.1 Classificatory verbs and noun classifiers

Although it is comparatively rare for a language to have three distinct sets of classifiers (Aikhenvald 2000:191), entities in Moskona are categorized by three classifier systems on the basis of semantic features. The classificatory verbs categorize entities according the features of animateness, size, and perceived physical orientation. The numeral classifiers, which reflect a conflation of earlier categories, categorize entities primarily on the basis of perceived physical shape and (sometimes) animateness. The sortal classifiers individuate nominal referents in terms of generic class on the basis of animacy, function, and physical consistency.

The three nominal classification systems overlap somewhat in terms of categorization criteria, that is, animateness, physical shape, and size appear to be common criteria. All three systems allow an entity to change class affiliation when the typical features which categorize it are altered in some way. Use of a different classificatory verb in an existential expression signals a change in these features. Corn, which is growing in the garden, is categorized with the classificatory verb *ot* 'stand' as in (98), but when it has been plucked, as in (99), its physical orientation has changed, such that it is categorized with the verb *ah* 'lie'.

(98)   *Mesnom   en-ot   jig   maeken(a)   no-ma-i.*
        corn   DUR-stand LOC   garden   DNR-far-GIV
        'There is corn in the garden.'   [D]

(99)   *Mesnom   no-ma-i   ah jig   mod   i-da-eyj(a).*
        corn   DNR-far-GIV lie LOC   house   VIS-up-THITHER
        'The corn was in the house up there.'   [D]

The semantic features which are in focus determine co-occurrence. In (100), the semantic feature 'humanness' is in focus, as the sortal noun classifier *ibah*, the numeral classifier *erg-*, and the classificatory verb *ebah* all characterize the nominal entity *erurna* 'men' with this feature.

(100)   *Eri-orna   ibah   y-erg-ak   noga y-efedes   erá*
        they.PL-man HUMAN DU-NUM:1-two REL   DU-c.sibling   THM

        y-ebah   jig=kef.
        DU-live   LOC=here
        'The two men who were brothers were here.'   [T25]

In (101) for the noun *mek* 'pig', the semantic focus of 'mammal-ness' is signaled by sortal noun classifier *efega,* which places the nominal referent in the class of animals, the numeral classifier *or-* which categorizes mammals, and the classificatory verb *ot* which categorizes entities with perceived vertical orientation.

(101)   *Mek   efeg(a) or-i-ak   no-mis-i   ot   jig miskoh.*
        pig   ANIMAL NUM:7-?-two DNR-former-GIV   stand LOC house.base
        'Those two pigs are under the house.'   [D]

The inanimate entity *membef* 'spinach' in (102), belonging to the group of edible plants, is distinguished with the sortal noun *owos* 'VEG', as part of a collection by the numeral classifier *ors-* 'NUM:10', and as an inanimate entity having horizontal orientation by the classificatory verb *ah* 'lie'.

(102)   *Membef   owos   ors-ak   ah jig no-mej.*
        spinach   VEG   NUM:10-two lie LOC DNR-remote
        'The two [bunches of] spinach are over there.'   [D]

8.4.2 Non-verbal clauses

The predicate of a non-verbal clause may be a noun phrase, possessive pronoun, a demonstrative pronoun, an adverb or a headless relative clause. However, with few exceptions, non-verbal predicates which are not nominal, that is nouns or headless relative clauses, must have a subject/topic which is marked as a thematic element.

Subject/topic and predicate are juxtaposed, as no overt connector links the parts of the clause, as the predicate is understood from the syntactic structure of the clause. Unlike Meyah, with the copular verb *erek* 'COP' (Gravelle 2004:230), Moskona has no copular verb.

8.4.2.1 Nominal predicates

Structurally, non-verbal clauses with nominal predicates are equative clauses which are asyndetic expressions. Nominal predicates assert that the subject of the clause is a member of a class specified by the nominal predicate, such as *ebreg* 'leader' in (103), or as having an identity which is identical to the entity of the nominal predicate, such as *durega ofuy* 'last child' in (104). Nominal predicates may be noun phrases headed by a common noun, a proper noun or a pronoun.

(103)   *Eri   erin   manir   **ebreg***
        they.PL 3PLPOS large.person leader
        'They their main person is the leader'   [T22]

(104)   *Dif **di-orega   ofuy.***
        I   1SG-tail   extremity
        'I am the last child.' (lit. tail end)   [D]

The demonstrative *nomi* 'that', occurring as the final element of a subject NP, clearly defines the boundary of the subject in a non-verbal clause, syntactically signaling the second noun phrase, such as *osnok ofogog* in (105), and *merej erges* in (106), as the predicate nominal.

(105)   *Of(a)-es   no-ma-i   **osnok   ofogog**.*
        s/he-male DNR-far-GIV   person   evil
        'That guy is an evil person.'   [D]

(106)   *Ofa   no-ma-i   **merej   erg-es**.*
        s/he   DNR-far-GIV   avenger   NUM:1-one
        'He is an avenger.'   [T17]

Nouns denoting humans may function as a nominal predicate when the properties of the noun are either asserted or denied. The noun *orna* '(adult) man' which asserts the property "adult maleness", as the predicate in (107), is prefixed with the mode marker *em-* 'IRR', although nominals are not normally marked for irrealis.

(107)   *Dif **di-em-orna** se.*
        I   1SG-IRR-man certainly
        'I will be a man certainly.'   [D]

8.4.2.2 Relative clause predicates

A headless relative clause may also function as a non-verbal predicate, such as *noga onoduk bua* in (108) or *noga mimet éra* in (109).

(108)   *Ofa   **noga en-oduk   bua**?*
    s/he   REL   DUR-order   you.SG
    'He is [the one] who is sending you'   [T17]

(109)   *mosifef   no-ma-i   erá   **noga mi-em-et   éra***
    butterfly DNR-far-GIV   THM   REL   1PL-IRR-eat   NEG
    'the butterflies are [the ones] that we don't eat'   [T27]

8.4.2.3 Demonstrative predicates

Demonstrative pronouns may function as a non-verbal predicate, such as *nomi* in (110), *enomi* in (111) and *enokef* in (112).

(110)   *Ofon   mester   mogom   noga ofa eyta   fen   m-edina   erá*
    3SGPOS   plate   stone   REL   s/he take   from   NR-grandpar.   THM

    ***no-ma-i**.*
    DNR-far-GIV
    'His stone plate which he got from his ancestor, [it was] that (one).'   [T27]

(111)   *Dadin   m-i-egak   ewes e-**no-ma-i**.*
    1SGPOS   NR-3PL-leg   cavity   FOC-DNR-far-GIV
    'My pants are these very (ones).' (*migak ewes* = pants)   [D]

(112)   *Buwun   i-efer   e-**no-kef**=ey?*
    2SGPOS   3PL-child   FOC-DNR-here=Q
    'Your children, are [they] these very (ones)?'   [D]

8.4.2.4 Adverb predicates

A few verb-phrase adverbs may function as a non-verbal predicate, such as *sis* 'past'
(113), *decirma* 'definite' as in (114), and *toga* 'different(ly)' in (115). More rarely, a
clause-final adverb may function as a non-verbal predicate, such as *nom* 'VER' in (116).

(113)   *Mar   efì   erá   **sis**   jog.*
         thing longtime THM   past   already
         'The old things (traditions), [they] were long ago (past).'   [D]

(114)   *Mar   noga dif di-ek   no-ma-i   erá   **decirma**.*
         thing REL   I   1SG-see DNR-far-GIV THM   definite
         'The thing that I saw was definite.'   [D]

(115)   *Ofa erg-es   no-ma-i   erá   **toga**.*
         s/he NUM:1-one DNR-far-GIV   THM   different
         'He/that one was different.'   [T23]

(116)   *No-ma-i   erá   **nom**.*
         DNR-far-GIV   THM   VER
         'That (one) is (the) real [one].'   [D]

8.4.2.5 Interrogative word predicates

As presented in §12.1.2, interrogative words occur in the position of the element which
they replace. Interrogative words may function as a non-verbal predicate, such as *ida* in
(117), *midá* in (118) and *nefa* in (119). (The subjects/topics have also been marked as
thematic elements.)

(117)   *Bua   buwun eb-dina   erá   **ida**?*
         you.SG   2SGPOS 2SG-grandparent THM   who
         'You your ancestor is who?'   [TT]

(118)   *Mar   no-kef   erá   **midá**?*
         thing DNR-here   THM   what
         'This thing is what?'   [D]

(119)   *Buwun miy   erá   **nef-a**?*
         2SGPOS water THM   which-PGE
         'Your (glass of) water, [it is] which (one)?'   [D]

8.4.2.6 Negation of non-verbal predicate

When a non-verbal predicate is negated, the negative adverb follows the final element of the predicate. No constituent of a non-verbal predicate, such as the adverb *decir* in (120), noun *ejena* in (121) or relative clause *noga Moskona* in (122), is marked for irrealis with the marker *em-*, as are predicates of verbal clauses.

(120)   *Mar   no-ma-i   **decir**   ér(a)   nom.*
       thing   DNR-far-GIV   correct   NEG   VER
       'That's not really correct.'   [D]

(121)   *tiná   **ejena**   no-kef   éra.*
       but   woman   DNR-here   NEG
       'but not this woman.'   [TT]

(122)   *Ejena   erg-es   **noga   Moskona** gurá, dokun noga   ojga   fen...*
       woman   NUM:1-one REL   moskona   NEG   and   REL   originated   from
       'A woman who was not Moskona, and who originated from ...'   [T29]

Chapter 9
Complex predicates

9.0 Introduction

Previous discussion of predicates and clauses focused on simple clauses with simple predicates. This chapter focuses on predicates which are semantically and morphologically complex, that is, composed of two or more separate words, but functioning syntactically as a unit. In Moskona there are two broad categories of complex predicates: those which are composed of two or more verbal parts, and those which are composed of a nominal and verbal constituent. Those which are composed of two or more verbal parts are the serial verb constructions (§9.1) and those constructions with a verbal preposition (§9.2). Those which have a nominal and verbal constituent are the emotional-state constructions (§9.3).

9.1 Serial verb constructions

Serial verb constructions are a widely observed phenomenon in Oceania and New Guinea (Aikhenvald 2006:1). Serial verb constructions (SVC) in Moskona contain at least two or more predicates which are not parts of a compound, do not constitute a single phonological or morphological word, nor are they constituents of separate clauses. Grammatically, the verbs in a SVC are morphologically independent words and can be autonomous predicates. As monoclausal syntactic units, SVCs are distinguished from other multi-verb structures, such as subordinate and conjoined predicates, by the absence of clause linkers. Serial verb constructions, as complex predicates in Moskona, share arguments and verbal inflectional categories, and indicate a monoclausal interpretation through the absence of clause-linkers.

In contrast to many SVO languages which have only non-contiguous serialized verb constructions (cf. Foley & Olson 1985:48), the components of serial verb constructions in Moskona may form two types of constructions: those in which two verbs are contiguous with the internal structure S VV (O), that is, no material intervenes between verbs, or those in which the verbs are non-contiguous, with the internal structure S V O=S V (O). In constructions in which the verbs are non-contiguous, the subject argument of the second verb is co-referent with the object of the first verb, and thus is expressed only once. This type of argument structure is said to be 'fused' (Aikhenvald 2006:13). An additional type of non-contiguous SVC, an ambient serial verb construction, also occurs which does not share an argument, but rather the second verb modifies the entire event which the first verb denotes.

The verbs in a SVC may be either symmetrical or asymmetrical. Symmetrical constructions consist of two verbs, each chosen from a semantically and grammatically unrestricted class, that is, they are from open classes and are co-ranking verbs. In

asymmetrical SVCs, the head or major verb belongs to an open class, while the subordinate (modifying) verb or minor verb comes from a grammatically or semantically restricted class.

9.1.1 Characteristics of SVCs

There are a number of characteristics which distinguish serial verb constructions in Moskona from other multi-verb constructions. The semantic criterion for a serial verb construction is that all events expressed by the predicates are conceived of by speakers as a single complex event, that is, they are viewed as composing two or more facets of one complex event. The syntactic characteristics for serial verb constructions are:

      i.   shared arguments
      ii. monoclausal interpretation (e.g. no pause after verb)
      iii. lack of markers of subordination or coordination
      iv. shared aspect and mode
      v.   scope of negation

i. Shared arguments

Cross-linguistically, shared arguments are defining criteria of serial verb constructions (Aikhenvald 2006:12). In motion (1), aspectual (2), and instrument (3) serial verb constructions, V1 and V2 share a subject argument, indicated by subject markers prefixed to verbs.

(1)   *Eri*   **i-ecira**   **i**-*er*-**omnin**   *dif.*
        they.PL 3PL-walk   3PL-CAUS-aim.at   I
        'They walked [and] aimed at me.'   [D]

(2)   *Eri*   **i-eker**   **i-er-efet**.
        they.PL 3PL-sit   3PL-CAUS-close.proximity
        'They were close (to something).'   [T13]

(3)   *Bua*   **bi-or**   *merga*   **bi-er-edi**   *mod*   *no-ma-i..*
        you.SG 2SG-hold   wood   2SG-CAUS-push.against house DNR-far-GIV
        'Prop up the house with the (piece of) wood ..'   [D]

In simultaneous SVCs, as in (4), and cause-effect SVCs, as in (5) and (6), the object argument of V1 is the subject argument of V2.

(4)   *Eri*   *i-ognunui* **i-er-em-egedid-im(a)**   **i-en**   *skod* *ofa.*
        they.PL 3PL-many 3PL-CAUS-RECIP-obstruct   3PL-come to   s/he
        'Lots of them hindered each other coming to him.'   [TT]

(5)   *Bua*   ***bi-er-en***   *mar   no-ma-i*   ***esir,*** *rot*   *midá?*
        you.SG 2SG-CAUS-do   thing DNR-far-GIV   fall   about what
        'You made that thing [so] it fell, for what reason?'   [D]

(6)   ***i-edesk(a)***   *mar*   *noga* *efi*   *no-ma-i*   *romreg*   ***ororum***
        3PL-release   thing REL   longtime DNR-far-GIV all   be.lost
        '(they) released all the old things (traditions) [so] they were lost'   [T12]

ii. Monoclausal interpretation

In serial constructions, there is no pause following a verb or its object, whether the verbs are contiguous or non-contiguous. Therefore, a clause such as the motion serial verb construction in (7) or the cause-effect serialization construction in (8) has no pause following the first verb or its object argument.

(7)   *Eri*   *i-**ahaw***   *i-**of***   *medew* *jig* *miteyja* *ni*   *merahays(a).*
        they.PL 3PL-descend 3PL-fell sago   LOC swamp   for   Christmas
        'They came down [and] felled sago trees in the swamp for Christmas.' [T30]

(8)   *Dif* *di-**erha***   *gorden* ***osoror***   *jug*   *jendera.*
        I   1SG-hang   curtain   suspended against   window
        'I hung up the curtain, [so] (it) is suspended over the window.'   [D]

iii. Lack of clause linkers

Sentences with clauses linked by conjunctions, such as *edá* 'then' in (9), express separate events, whereas complex predicates express a single event, as in (10).

(9)   *....y-efer* *y-erg-ak*   *no-ma-i*   ***y-ok,*** ***edá*** ***y-edem*** *y-ergaha* ...
        DU-child DU-NUM:1-two DNR-far-GIV   DU-flee then   DU-hide DU-3DURFL
        '..the two kids fled, then hid themselves....'   [T23]

(10)   *edá*   ***y-eyja*** ***y-edem*** *yergaha.*
        then   DU-go   DU-hide 2DURFL
        'then (they) went [and] hid themselves.'   [T23]

iv. Shared aspect and mode

In (11) and (12), the durative marker *en-*, marking both the first and second verbs, indicates shared habitual aspect in the cause-effect serialization clauses.

(11)   *Ofa* **en-en** *jug*   *mar* *no-ma-i*   **en-osener** *fen* *mif.*
        s/he   DUR-do against thing DNR-far-GIV DUR-vanish from we.PL
        'He forbade those things [so] (they) vanished from us.'   [T14]

(12)   *...***mi-en-eker** *rot* *Tuhan* *ogá*   *esis*   **en-oksof**   *mar* *efi*
          1PL-DUR-sit about Lord   speech exclude DUR-replace thing longtime

        no-ma-i.
        DNR-far-GIV
        '... we are living with the Lord's word exclusively [so] (it) replaces those old
        things (traditions).'   [T14]

Both first and second verbs of the cause-effect serial verb construction in (13) are marked
with *em-* 'IRR', indicating a shared modality.

(13)   *Ejena* **em-ok**   *efer* **em-oj**.
        woman   IRR-bear   child IRR-descend
        'The woman would bear the child (baby) [so] it descended.'   [T1]

v. Negation scope

In a serial verb construction, although the negative adverb has the entire construction
within its scope, not all verbs are necessarily affected. Affected verbs are obligatorily
marked with *em-* 'IRR'.

One of the verbs in a serial construction may be negated, but the other may not, as in the
cause-effect SVCs in (14) and (15), and in the simultaneous SVCs in (16) and (17). This
optional marking differs from SVCs in Sougb in which all verbs in the construction are
marked for affectedness (Reesink 2002b:250).

(14)   *...mow* *no-ma-i*   *erá* **em-en** *mar* *no-ma-i*   **em-efem**   *éra.*
          land DNR-far-GIV THM IRR-do thing DNR-far-GIV   IRR-be.tuber NEG
        '... that dirt will not cause those things (cuttings) [so] (they) will not be tubers
        (mature)'   [T29]

(15)   *Bua*   **bi-em-en**   *mar* *erg-erg-em*   **ekris**   *di-oduy*   *edak.*
        you.SG 2SG-IRR-do thing NUM:1-RED-CST exceed 1SG-front NEG.DEON
        'You shouldn't do anything [so] (it) exceeds my wishes.'   [D]

(16)   *Esha* *ofa* **ebrekirk(a)** **em-eg** *mar* *noga* *ofon*   *ekok* *odu* *mar* *éra.*
        from   s/he stubborn   IRR-hear thing REL   3SGPOS father tell thing NEG
        '[The reason is] he is stubborn [and] does not listen to what his father tells
        (him).'   [D]

(17)   *Ergog* ***y-oduy ohta y-em-odu*** *gug mar erg-es   noga owok(a)*
they.DU DU-front suck DU-IRR-tell to   thing NUM:1-one REL   name

medeg   éra.
bamboo NEG
'They two forgot [and] did not tell something which its name was bamboo.'

[T23]

9.1.2 Serial verb construction types

Serial verb constructions are a grammatical technique with a wide variety of meanings and functions (Aikhenvald 2006:2). The relationships between verbs in serial constructions may be described on a semantic basis, as the construction expresses a relationship between its components. Moskona has the following types of serial verb constructions:

> simultaneous serialization
> motion serialization
> cause-effect serialization
> aspectual serialization
> instrument serialization
> ambient serialization

9.1.2.1 Simultaneous serialization

Simultaneous events are coded in symmetrical serial constructions composed of non-contiguous verbs. The semantic relation between these verbs may be construed to express purpose, but the clausal linker *ni* 'for', which introduces a purpose clause, as in (18), is absent. The verb *er-enin* in (19) is the second verb of the SVC, not the predicate of a second clause; thus it expresses an event which is simultaneous.

(18)   *Bua* ***bi-eyta***   *mar   no-ma-i*   ***ni*** *dif* ***di-er-enin***   *roga.*
you.SG 2SG-take   thing   DNR-far-GIV   for I   1SG-CAUS-measure first
'Give it [to me], so I (can) test it first.'   [D]

(19)   *Dif* ***di-et***   *morgik owos   er-es*   ***di-er-enin***,   *tiná*
I   1SG-eat   matoa   produce NUM:4-one   1SG-CAUS-measure but

omta   ros.
sour   still
'I ate a matoa fruit [and] tried it, but it was still sour (unripe).'   [D]

The first verb of a simultaneous SVC is always transitive. The second verb may be an intransitive verb, such as *ebah* 'live' in (20) or *owi* 'endeavor' or 'intend' in (21).

(20)   *Edá, bua   bi-**okuk**   medes   bi-**ebah**   ruruy.*
        then   you.SG 2SG-like   barter.child 2SG-live   unrestrict.
        'Then, you are like a bartered child [and] live however [you can].'   [T26]

(21)   *Dif **di-en**   mar   **di-er-owi**   ni   i-osnok   erin   i-oduy*
        I   1SG-do   thing 1SG-CAUS-endeavor for 3PL-front 3PLPOS 3PL-front

        oyf-omof   rot   dif.
        good-RED   about I
        'I attempt to do things, so that people are pleased with me.' (lit. their front is
        good about me)   [D]

The second verb in a simultaneous SVC may be a transitive verb, such as *osturur*
'connect' in (22), *ek* 'see' in (23) or *omeda* 'anticipate' in (24).

(22)   *Bua   **bi-ahac** mofun   no-ma-i   **bi-er-em-osturur-ima**.*
        you.SG 2SG-tie   vine   DNR-far-GIV   2SG-CAUS-RECIP-connect
        'Tie the vines [and] connect them to each other.'   [D]

(23)   *Edá, ofa **oku**   mek   eweken **ek** mon   eker jig...*
        then s/he burn pig   jaw   see corpse sit   LOC
        'Then, he burned the pig's jaw [and] saw the corpse (ghost) in (him) ...'
        [T8]

(24)   *Mif   **mi-en**   keradi **mi-er-omed(a)**   hah   mesta noga ok   mas.*
        we.PL 1PL-do   work   1PL-CAUS-anticipate shortly moon REL   bear rain
        'We work [and] expect in a short time the month which brings rain.'   [D]

9.1.2.2 Motion serialization

Motion serialization constructions, which are quite common in Moskona, are composed
of contiguous verbs, such as *eyja* 'go' and *ek* 'see' in (25). In rare instances, there may be
some intervening material, such as the temporal adverbial *motah* in (26). Motion SVCs are
not an expression of consecutive events as are conjoined clauses, such as the predicates
osok and *éysaha* in (27) linked by the conjunction *edá* 'then'.

(25)   *Dif **di-eyja**   **di-ek**   rambutan owos   no-ma-i   tutum.*
        I   1SG-go.to 1SG-see k.o.tree   produce DNR-far-GIV often
        'I went [and] looked at the rambutan fruit often.'   [D]

(26)   *Dif **di-eciga**   motah   **di-oyna**   mar-mosorn(a) ni i-eferiok   esha ...*
        I   1SG-get.up morning 1SG-cook   thing-hunger   for 3PL-sm.child from
        'After I get up in the morning [and] cook food for the small children...' [D]

(27)   .. *ofa*   **osok**   *deci,*   **edá éysaha** *tomrer* *jig*   *miy*   *odog*
       s/he   climb.up   slowly   then   reach   openly   LOC   water   belly

deci-ci.
slowly-RED
'...he ascended slowly, then openly appeared on the water's surface very
slowly.'   [T23]

A motion SVC is asymmetrical, as the first verb of a motion SVC is restricted to verbs of
motion, denoting the inception of the event expressed by the second verb. The motion
verbs include verbs, such as *eyja* 'go(to)', as in (28)*,* *osok* 'climb up', as in (29)*, eciga*
'get up', as in (30)*, ofof* 'run', as in (31)*, ok* 'flee' as in (32)*,* and a number of others, such
as *en* 'come'*, ahaw* 'descend'*, osra* 'enter'*, ecira* 'walk'*, oksomus* 'return'. The second
verb may be transitive or intransitive, but must be an active verb.

(28)   *Dif* **di-eyja** **di-edis**   *jig*   *dadin*   *mod.*
       I   1SG-go   1SG-miss   LOC   1SGPOS   house
       'I went [and] missed (other places) to my home (i.e. went directly).'   [D]

(29)   *Yef*   **y-osok**   **y-of**   *mekekew*   *ni*   *y-er*   *mesigebra.*
       We.DU   DU-climb.up   DU-fell   lg.bamboo   for   DU-shave   bow
       'We went up [and] cut bamboo to make bows.'   [T14]

(30)   *Edá*   *mif*   **mi-eciga**   **mi-owha**.
       Then   we.PL   1PL-get.up   1PL-leave
       'Then, we got up [and] left.'   [T14]

(31)   *Ofa*   **ofof**   **esed**   *dadin*   *mesina*   *fen*   *di-etma...*
       he   run   grab   1SGPOS   stringbag   from   1SG-arm
       'He ran [and] grabbed my bag from my hand....'   [D]

(32)   *...kus*   *no-ma-i*   *tin,*   *dif* **di-ok**   **di-eckef**   *fen.*
       short.span   DNR-far-GIV   also   I   1SG-flee   1SG-escape   from
       '... [during] that time also, I fled [and] escaped.'   [D]

Similar verb sequences may be found in other languages in the East Bird's Head, such as
Meyah (Gravelle 2004:240) which has motion-action sequences which share a subject
argument, or Hatam (Reesink 1999:98) and Sougb (Reesink 2002b:250) which have a
serial verb construction with a motion verb preceding an action verb.

9.1.2.3 Grammaticalized directionals

A directional serialization construction with directional elements occurring as verbs in a
SVC no longer exists in Moskona, as the motion verbs *en* 'come' and *eyja* 'go.to' have

been grammaticalized to form the directional deictics *en* 'HITHER' and *eyja* 'THITHER', in a manner similar to the grammaticalization of motion verbs in some Oceanic languages as described by Lichtenberk (1991) and Ross (2004). As directional deictics, they have a distribution similar to locative adverbs in the clause. They may be prefixed by the generic nominalizer *m-*, as in (33) and (34), or they may be attached to an elevational clitic *–ba* or *- da*, as in (35). Further discussion of directional deictics may be found in §5.2.4. Directional verb sequences are still found in Meyah (Gravelle 2004:242) and Hatam (Reesink 1999:99), as a motion verb may occur as the second verb of a serial sequence, following a verb expressing the main action of the clause, to function as a directional.

(33)   *Ofa   em-eyet   **m-en**   se.*
        s/he   IRR-succeed NR-HITHER   certainly
        'He will follow (to) here for certain.'   [T22]

(34)   *Bua   bi-eyja jig   tesi   **m-eyj(a).***
        you.SG 2SG-go LOC below   NR-THITHER
        'Go below over there.'   [D]

(35)   *ergen   mi-ew-esa   ok   okog   jig   moga   **i-d(a)=eyj(a)**.*
        3DUPOS   1PL-sib.op.s.-yg flee precede LOC   wall   VIS-up=THITHER
        'their younger sister fled [and] preceded (them) at the cliff face up there.'
                                                                                   [T25]

9.1.2.4 Cause-effect serialization

In a cause-effect serialization, the first verb indicates the cause or means of the action and the second verb expresses the result, effect, endpoint or goal of the action. Word order is iconic, that is, the verb causing the action occurs before the verb indicating the effect. V1 is always transitive, but V2 may be intransitive, such as *efef* 'ache' in (36), *oj* 'descend (into)' in (37) and *oysa* 'finished' in (38), or transitive, such as *ec* 'become' in (39) and *osuj* '(be) upon' in (40). The structure is symmetrical as both verbs come from unrestricted classes, as is common in cause-effect SVCs (Aikhenvald 2006:14). These are "switch-function" (Aikhenvald 2006:14) or "switch-subject" (Bril 2004:4) constructions, as they share an argument which has a separate function for each verb. In English this is handled by the subordinating conjunction 'so'.

(36)   *Meskiomka erá **eska** i-owos **efef** eseter.*
        scorpion   THM sting 3PL-skin ache much.more
        'The scorpion stung their skin [so] (it) hurts a lot.'   [T29]

(37)   *Ejena **em-ok**   efer **em-oj**.*
        woman IRR-bear   child IRR-descend
        'The woman would bear the child (baby), [so] (it) would descend.'   [T1]

(38) *Bua   m-ohojoh miyefen em-oysa   tisef   edak.*
      you.SG IRR-ruin   money   IRR-finish today   NEG.DEON
      'Don't waste money [so] (it) is used up today.'   [D]

(39) *Eri   i-orna   i-oduk   mif   mi-ec   mereja.*
      they.PL 3PL-man   3PL-order we.PL 1PL-become   avenger
      'They, the men ordered us [so] (we) became avengers.'   [T17]

(40) *Eri   i-esah   mogom m-osuj-(i)ma   jig mow ed-es.*
      they.PL 3PL-put   stone RECIP-upon   LOC land NUM:2-one
      'They put the stones [so] (they) are upon each other in one place.' [D]

Those verbs which explicitly express causation, such as *en* 'do' in (41) and (42), *eyta* 'take' in (43), and *engit* 'make' in (44), also occur as the first verb in a cause-effect serial construction.

(41) *Mogos efena em-er-en   mar-mosorna   em-owos   em-oskur-ah.*
      snake   spirit IRR-CAUS-do thing-hunger   IRR-produce IRR-bad-INTENS
      'The snake's spirit will cause the food (plants) [so] they will produce really badly.'   [D]

(42) *Maw en dif di-efenen.*
      sun   do I   1SG-be.hot
      'The sun caused me [so] I am hot.'   [D]

(43) *Ofa   eyta meber efifr-ef.*
      s/he take shelf level-near
      'He made the shelf [so] it is level.'   [T25]

(44) *Mar okuk no-ma-i   engit ofa   em-eker kocka jig   éra.*
      thing like DNR-far-GIV   make s/he IRR-sit   well LOC   NEG
      'Things like that made him [so] he did not wait well there.'   [T27]

Cause-effect serialization indicates direct causation, as in (45). Cause-effect SVCs are distinguished from sentences with dependent clauses introduced by the conjunction *erogá* 'hence' which indicate indirect causation, as in (46). They also may be distinguished from dependent purpose clauses introduced by the preposition *ni* 'for', as in (47).

(45) *Mafif no-ma-i   engit kertas efi   of toktog(a)   jig   mow.*
      wind   DNR-far-GIV   make paper   leaf fly respect.place LOC   land
      'The breeze caused the papers fly off to the floor.'   [D]

(46)   *Mes   er-en   mem kokar no-ma-i   romreg, **erogá** of toktog(a).*
        dog   CAUS-do bird crow DNR-far-GIV   all   hence fly respect.place
        'The dog made all the chickens, so (they) flew off everywhere.'   [D]

(47)   *Ofa   engit dif **ni** di-okockoda.*
        s/he   make I   for 1SG-stumble
        'He made me so (that) I tripped.'   [D]

9.1.2.5 Aspectual serialization

The use of SVCs to express aspect is a feature which is common to both Papuan (Foley 1986:143) and Oceanic languages (Early 2000:82). In Moskona, continuous (durative) and inceptive aspect may be expressed through aspectual serial constructions. In aspectual serializations, the verbs are contiguous. The relationship is asymmetrical as the first verb is from a restricted class; it is either a posture verb or the motion verb *eyja* 'go'. The second verb is an unrestricted active verb. Aspectual SVCs conform to the pattern sequence minor verb-major verb, as found in other asymmetrical serial constructions.

The posture verbs *ot* 'stand', *eker* 'sit' and *ah* 'lie' as a distinct group of terms express continuous or progressive aspect. And although these verbs have been partially grammaticalized to perform an aspectual function, their primary component of physical orientation has been reduced, but not completely lost, as physical position is selectional in the choice of posture verb, such as *ot* 'stand' in (48), *eker* 'sit' in (49), *ah* 'lie' in (50) and *eker* 'sit' in (50). The postural verbs, which are inherently durational, allow their meaning and function to be extended to express continuous aspect (Foley 1986:145, Early 2000:82), specifying a domain of time. These posture verbs are usually translated in Malay with the word *sedang* 'while' or 'in process'.

(48)   *Eri   **i-ot**   **i-eregejg(a)**   ofa.*
        they.PL 3PL-stand 3PL-surround   s/he
        'They were (standing) around him.'   [T29]

(49)   *Eri-(e)j-a,   eri   **i-eker** **i-er-omed**   hah   masina.*
        they.PL-female they.PL 3PL-sit   3PL-CAUS-anticipate   shortly   rainy.season
        'The women, they are expecting the rainy season shortly.'   [D]

(50)   *Petrus **ah omk(a)**   jig   jog.*
        Petrus   lie sleep.deep LOC   already
        'Petrus was already sleeping deeply.'   [TT]

(51)   *Ofon   m-ok-era-ir   erá **i-eker** **i-em-efif-im(a)**   sokomow...*
        3SGPOS NR-sib.s.s.-old-PL THM 3PL-sit   3PL-RECIP-arrange   beginning
        'His older brothers were arranged in order earlier....'   [T29]

In addition to active verbs, the posture verb *ah* 'lie' may precede adjectival verbs, such as *aynun* 'enduring' in (52), *etkebra* '(be) short' in (53) and *erer* 'see-thru' or 'holey' in (54), to express continuous or durative aspect.

(52)   *Miy   no-ma-i   ecira* **ah aynun**.
           water DNR-far-GIV walk lie   enduring
           'The river goes on forever.'   [D]

(53)   *ofon   ofom* **ah etkebra**
           3SGPOS root   lie   short
           'its roots are shallow'   [T29]

(54)   *Kasina eferu   no-ma-i   erá* **ah er-er**   *nom.*
           glass   segment DNR-far-GIV THM lie see.thru-RED   VER
           'The glass panes are really see-through (transparent).'   [D]

The motion verb *eyja* 'go (to)', as in (55) and (56), expresses inceptive aspect in an aspectual SVC, the motion component having been completely bleached away, but quite likely retaining the extension of that property, as in 'go to a place to begin something'. The verbal phrase *osok jig* (climb.up LOC) 'begin' also expresses the same concept. In a similar manner, the Meyah verb *eja* 'go' also expresses inceptive, but has also been grammaticalized into the prefix *ej-* 'INCEP' (Gravelle 2004:240).

(55)   *Dif* **di-eyja di-et**   *mar-mosorna efenin=kef.*
           I   1SG-go 1SG-eat   thing-hunger   recent=here
           'I just now began to eat the food.'   [D]

(56)   *Eri   i-osok   jig miyes,   erogá* **i-eyja   i-ah-miy**   *jig   owoksa*
           they.PL 3PL-ride LOC dugout hence 3PL-go   3PL-lie-water LOC   subunit

           rot   mos   orokec.
           about   fish   large
           'They rode in the dugout, so (they) began to fish in the bay for large fish.'[T17]

The motion verb *eyja* 'go (to)' also occurs as V1 in a motion SVC (§9.1.2.2), such that the meaning can be ambiguous, yielding two possible interpretations, as in (57).

(57)   *Edá, eri   i-**eyja**   i-**or**   mod jig   merga   or-i-em   tas.*
           then   they.PL 3PL-go 3PL-build house LOC   wood   NUM:7-?-CST again
           'Then, they began again to build a house in another tree.'
           or 'they went again [and] built a house in another tree.'   [T3]

9.1.2.6 Instrument serialization

The function of an instrument SVC is to introduce an instrument argument into the predication, as the core arguments of SVCs are a function of the whole serial construction rather than just one of its verbs (Foley & Olson 1985:44). The semantic and morphosyntactic properties of V1, the manipulative verb *or* 'hold', as in (58), or more rarely, *eyta* 'take', as in (59) or (60), have been reduced, leaving little more than the grammatical specification of instrument. This is more clearly demonstrated in SVCs in which the instrument is not a physical object, such as *ogá* 'speech' in (61). The object argument of a manipulative verb, which must be a noun, may also be marked as a thematic element with *erá* 'THM', such as *mitok efeyu* in (62).

(58) *I-osnok   no-ma-i   **i-em-or**   mogom **i-em-er-ed**   mif   rot.*
      3PL-person DNR-far-GIV 3PL-IRR-hold   stone   3PL-IRR-CAUS-hit we.PL about
      'The people will strike us with stones for it.'   [TT]

(59) *Ergog   **y-eyta**   miyec   **y-er-em-eg(a)-im(a)***.
      they.DU DU-take clothes   DU-CAUS-RECIP-trade
      'They exchanged clothes.'   [D]

(60) *Bua   **bi-eyta**   mar   no-ma-i   romreg **bi-er-em-ed-ima***
      you.SG 2SG-take   thing DNR-far-GIV   all   2SG-CAUS-RECIP-join

      jig   mow   erg-es.
      LOC   land   NUM:1-one
      'Gather all those things in one place.'   [T23]

(61) *Eri   **i-or**   i-ogá   **i-er-obder**   ofa.*
      they.PL 3PL-hold   3PL-speech   3PL-CAUS-insult   s/he
      'They insulted him with their speech.'   [TT]

(62) *Ofa   **or**   mitok   efeyu   erá   **er-egej(a)**   mek-rus   owos fen.*
      s/he   hold   knife   immature   THM   CAUS-slit.open pig-deer   skin   from
      'He slit open the deer's hide with a small knife.'   [T27]

In addition to the object argument, the manipulative verb may have a peripheral argument, such as the goal *rot miyec* 'about/for the dugout' in (63).

(63) *Eri   **i-or**   mofun   **rot**   **miyec**   i-er-ahac   merga   efega.*
      they.PL 3PL-hold   vine   about dugout 3PL-CAUS-tie   wood   body
      'They tied the dugout with a vine (rope) to the stump.'   [T13]

Structures similar to that of instrument serialization occur in the East Bird's Head languages Meyah (Gravelle 2004:250) and Sougb (Reesink 2002b:251), and also in Hatam (Reesink 1999:101), with an instrumental verb sequence in which a manipulative verb precedes the main verb of the clause.

Only rarely is an instrument introduced by a preposition. Foley and Olson (1985:54) suggest that the use of a preposition like *rot* 'about' to introduce an instrument, as in (64), makes it a peripheral layer constituent (i.e. a peripheral argument) of secondary importance, whereas instruments in an instrument SVC are core layer participants, that is, core arguments of the construction.

(64)   *Bua*   *bi-er-om*   *bi-owos*   ***rot***   ***mohua***.
        you.SG   2SG-CAUS-enclose   2SG-skin   about   wide.cloth
        'Wrap yourself up with the blanket.'   [D]

9.1.2.7 Ambient serialization

Ambient (or event-argument) serial verb constructions are a type of SVC in which there are no shared arguments. The second verb is predicated on the entire event or state denoted by the preceding predication (Aikhenvald 2006:19). Ambient SVCs are composed of a main verb, which carries the lexical content, plus a minor verb, which in some way modifies it. These minor verbs include verbs of manner, time, degree or location. Similar to the ambient SVCs found in Oceanic languages (Aikhenvald 2006:18), the minor verb is always marked for third person singular, a null morpheme. The second verb in many of these constructions has lost much of the potential inflectional morphology or has become grammaticalized to some degree, suggesting that these minor verbs may be developing into adverbs (cf. §4.1.1).

In contrast to non-contiguous SVCs, in which the object argument of the first verb is the subject argument of the second verb, the object argument of the first verb in an ambient SVC is not shared by the second verb. The second verb occurs contiguous to an intransitive first verb, but follows the object of a transitive verb, and always occurs preceding the negative adverb, as does *esebra* 'continuous' in (65). The clausal position is similar to verb-phrase adverbs.

(65)   *...ofa em-orusohta mar* ***esebra***   *éra.*
         s/he IRR-think   thing   continuous   NEG
        '..he didn't think about it all the time.'   [T27]

9.1.2.7.1 Manner ambient serialization

The state denoted by a manner verb provides the manner specification for the entire event expressed by the main verb, that is, its function and distribution is similar to a verb-phrase manner adverb. Manner verbs are restricted to stative verbs, such as *ahaysa* 'hard' in (66), *owas* '(be) strong' in (67), *amsa* 'silent' in (68), *ednorur* 'enervated' and *efef*

'ache' in (69), and are marked for third person singular, a null morpheme. Some of these verbs, such as *otka* '(be) tasty' in (71), *oyfa* '(be) good' and *oskur* '(be) bad' in (72), may function as the main predicate of a simple clause, but others, such as the verb *owosi* '(be) ordinary' in (70), no longer do so.

(66) *Dif di-osoms(a) ahaysa*
     I   1SG-clutch   hard
     'I clutched (it) tightly' (lit. I clutch; it is hard)   [T24]

(67) *Bua   bi-ecira   owas   okuk no-ma-i*
     you.SG 2SG-walk strong   like   DNR-far-GIV
     'Walk strongly like that' (lit. you walk; it is strong like that)   [D]

(68) *Méesa   no-ma-i   i-osra   amsa.*
     enemy   DNR-far-GIV   3PL-enter silent
     'The enemy entered silently.' (lit. that enemy enters; it is silent)   [T14]

(69) *Ofa   ecira ednorur, esha osorn(a)   efef.*
     s/he   walk enervated from hunger   ache
     'He walked weakly because he hungered greatly.' (lit. he walk; he is enervated
     and he hungers; it aches)   [D]

(70) *Eri-orna   no-ma-i,   eri   i-et   mofta   efi   owosi   nom.*
     they.PL-man DNR-far-GIV   they.PL 3PL-eat sugar.palmliquid ordinary VER
     'Those men, truly they ordinarily drink sugar palm wine.'   [D]

(71) *Ofa odu   mar otka-mok esebra.*
     s/he tell   thing tasty-RED continuous
     'He always talks too much.' (*otkamok* = '(be) indulgent')   [D]

(72) *Sis, eri   i-ebah oyf-omof, tiná kus   no-kef   erá   i-ebah*
     past they.PL 3PL-live good-RED but   short.span DNR-here THM 3PL-live

     oskur-ah.
     bad-RED
     'In the past, they lived well (in peace), but during these times (they) live very
     badly (in emnity). (lit. they live; it is very good. they live; it is very bad)
                                           [T24]

Mode may be shared by the manner verb, as evidenced by the mode morpheme *em-* 'IRR' attached to *oskur* '(be) bad' in (73).

(73)   *Mogosa efena em-er-en   mar-mosorn(a) **em-owos   em-oskur-ah**.*
       snake   spirit IRR-CAUS-do thing-hunger   IRR-produce IRR-bad-INTS
       'The snake's spirit will cause the food (plants) to produce really badly.'
       (lit. food will produce; it will be very bad)   [D]

The minor verb of a manner verb construction may also be marked reciprocally. An abbreviated form of the prefixal part of the reciprocal marker *m-* occurs on the minor verb, which functions adverbially to indicate the event is performed or experienced reciprocally, such that the minor verbs express the adverbial notion 'simultaneously' or '(do something) together'. Like other manner verb constructions, the first verb may be transitive, such as *et* 'eat' in (74) and *og* 'scoop up' in (75), or intransitive, such as *of* 'closed' in (76) and *ecim* 'fall over' in (77). The second verb is always transitive.

(74)   *Yef   y-et   mar-mosorna   **m-orot-ima**.*
       we.DU   DU-eat   thing-hunger   RECIP-go.with
       'We ate the food together.' (lit. we eat food; it goes with e.o.)   [TT]

(75)   *Ergog   y-og   mar-mosorn(a)   **m-ef-im(a)**.*
       they.DU DU-scoop.up   thing-hunger   RECIP-do.in.turns
       'They two scooped food (fed) each other in turns.' (they scoop up food; it does to e.o.)   [T12]

(76)   *romreg **of**   **m-en-ima**   jug.*
       all   close RECIP-come against
       'all were already closed up.' (all were closed; it comes (to) e.o.)   [T10]

(77)   *merga   esim   es   **m-ejg(a)-im(a)** esebra*
       wood   fall.over set RECIP-graze   continuous
       'The trees fell over continuously one after the next' (trees fall over; they graze each other)'   [T27]

A number of the minor verbs found in these adverbial SVCs no longer function as verbs outside of this construction. These former verbs have become members of minor word classes, by eliding the root-initial vowel. The verb *ejera* '(be) with', as in (78) has grammaticalized to become the conjunction *jera* 'with', the verb *edec* 'be at same place', as in (79), has become the preposition *dec* 'same location as', and the verb *eterir* 'be exact', as in (80), has become the adverb *terir* 'exactly'. The Meyah adverb *morototuma* 'together' (Gravelle 2004:123), being parsed *m-orot-ot-ima*, may also have its origins as a minor verb in an adverbial serial construction.

(78)   *eri   i-ah   **m-ejer(a)-im(a)** jig   no-ma-i*
       they.PL 3PL-lie   RECIP-be.with   LOC   DNR-far-GIV
       'they laid down together at that place.' (lit.they lie; it is with e.o.)   [T23]

(79)   *Yef   y-éysaha   **m-edec-im(a)**.*
       we.DU   DU-reach   RECIP-be.same.loc.as
       'We arrived together'(lit. we arrive; it is at the same place as e.o.)`   [D]

(80)   *(ergog)   y-et   **m-eterir-im(a)**.*
       they.DU   DU-eat   RECIP-be.exact
       'they ate at the same time.' (lit. they eat; it is exact as e.o.)   [T27]

In addition to simple predicates, an emotional-state predicate (§9.3.1) may also function as a manner predicate, such as *ejmeg etefa* (spine wet) '(be) persistent', in brackets in (81).

(81)   *Efer   no-ma-i   **en**   mar   [**ejmeg   etefa**   eseter].*
       child   DNR-far-GIV   do   thing   spine   wet   much.more
       'That guy does things very persistently.' (lit. that guy does things; his spine is very wet)   [D]

9.1.2.7.2 Temporal ambient serialization

The temporal verb *esebra* commonly expresses the adverbial concept of 'always' or 'continuously'. It may be inflected with the aspectual prefix *en-* 'DUR' to indicate the event is on-going at the time of the speech event, as in (82), or may not share durative aspect with the main verb, as in (83). There is no aspectual adverb expressing 'continuously' or 'always'.

(82)   *Mar   no-ma-i   romreg,   mi-**en-ahatu**   **en-esebra**.*
       thing   DNR-far-GIV   all   1PL-DUR-surrender   DUR-continuous
       'All those things, we are giving up all the time.'   [T14]

(83)   *....erogá   mes,   eri   **i-en-obra**   esebra=kef=ey?*
       hence   dog   they.PL   3PL-DUR-bark   continuous=here=Q
       '..so the dogs, they are barking continuously now?'   [T27]

When the main verb is marked for irrealis, *esebra* may or may not be marked with *em-* 'IRR', as in (84) and (85).

(84)   *....   ni   malaria   **em-ociga**   yua   esebra   éra.*
       for   malaria   IRR-affect   you.PL   continuously   NEG
       '...so (that) malaria doesn't affect you all the time.'   [T29]

(85)   *Eferiok   no-ma-i,   ofa   **em-ek**   ofuga   esebra.*
       sm.child   DNR-far-GIV   s/he   IRR-see   blood   continuous
       'The small child, he would see (experience) blood (dysentery) all the time.'
                         [T29]

The verbal preposition *osuj* '(be) upon', as in (86) and (87), and the verbal preposition *esha* '(be) from', as in (88) and (89), may function as temporal verbs and have distributional properties similar to clause-final adverbs which express phasal aspect, such as *roga* 'first' or 'before' (§4.1.2.2.1), performing grammatical functions similar to temporal adverbs. As temporal verbs they may be glossed '(be) after(wards)'.

(86)   *Edá, ofa **er-osta**   Eriefiosga **osuj**.*
       then   s/he   CAUS-pursue Eriefiosga upon
       'Then, he pursued Eriefiosga afterwards.'   [T25]

(87)   *Eri   i-owha   jog,   erogá   mod   **ejgeg-emeg osuj**.*
       they.PL 3PL-leave already hence   house   quiet-RED   upon
       'They had already left, so the house was very quiet afterwards.'   [D]

(88)   *...edá **bi-owha**   **esha**, erogá dif di-em-osok   jig.*
       then   2SG-leave   from   hence I   1SG-IRR-descend   LOC
       '... then after you leave, so I will go down.'   [T23]

(89)   *Bua   bi-orka   mar   no-ma-i   **bi-esah**   **esha**, edá bi-en   somus*
       you.SG 2SG-carry thing DNR-far-GIV 2SG-put   from   then 2SG-come back
       'After you take that [and] put it (away), then come back ...'   [D]

9.1.2.7.3 Degree ambient serialization

Degree verbs express adverbial concepts, such as intensification, restriction or comparison. The distribution of degree verbs is similar to verb-phrase adverbs, that is, they occur immediately following an intransitive verb or the object argument of a transitive verb.

The indefinite quantifier verbs *eseter* 'much more' and *etew* '(be) much' (§3.2.2.3.4) function as generic intensification verbs, as in (90) and (91).

(90)   *Mergej   no-ma-i   **aharg-irg(a)**   **eseter**.*
       firewood   DNR-far-GIV   dry-RED   much.more
       'That firewood is very dry.'   [D]

(91)   *Eri   **i-em-en** maeken(a)   **etew** éra.*
       they.PL 3PL-do garden   much   NEG
       'They don't work in the garden a lot.'   [T21]

The transitive verb *esis* 'exclude' in a degree verb serialization expresses the notion 'exclusively' or 'only', as in (92) and in (93).

(92) *(mif) mi-en   mar   no-ma-i   **esis**.*
      we.PL 1PL-do thing DNR-far-GIV exclude
      'we do those thing exclusively.'   [T13]

(93) *Orna no-ma-i   em-ok efer-ej   éra, tiná **ok**   efer-es   **esis**.*
      man   DNR-far-GIV IRR-bear child female NEG   but bear   child-male exclude
      'The man doesn't have daughters, but only has sons.'   [D]

The indefinite quantifier verb *eseter* '(be) much more' may also have a comparative
function meaning 'more than', as in (94). A superlative degree is expressed through the
verb *ekris* 'exceed', as in (95) and (96).

(94) *efer   owas   eseter*
      price strong   much.more
      'the price is higher.'   [T16]

(95) *Ej-efer   no-ma-i,   ofon   efega **oyf-omof** **ekris**.*
      female-child DNR-far-GIV   3PLPOS body good-RED exceed
      'The young woman, her body(figure) is best.'   [D]

(96) *Mar no-ma-i,   ofon   efer **owas**   **ekris**.*
      thing DNR-far-GIV 3SGPOS price strong   exceed
      'That thing, its price is highest.'   [D]

The basic color words *ahta* 'black', as in (97), *efsa* 'white', as in (99), and *ekena* 'red', as
in (98), have an occasional colloquial use as intensifiers for descriptive adjectivals.

(97) *Mitow   no-ma-i   erá efi   **ahta**.*
      machete   DNR-far-GIV THM sharp black
      'The machete is quite sharp.'   [D]

(98) *Mek no-ma-i   obrer **ekena**.*
      pig   DNR-far-GIV gaunt red
      'The pig is quite gaunt.'   [D]

(99) *Ofa ofon   efega manir **efsa**.*
      s/he 3SGPOS body leader   white
      'His body is quite large.'   [D]

9.1.2.8 Adverbial modifier *ereyja*

The motion verb *eyja* 'go (to)', inflected with the causative prefix *er-*, incrementally
intensifies or quantifies the stative verb which it precedes, such as *esen* '(be) far' in (100)

or *orokec* 'large' in (101), expressing the adverbial notion of 'rather'. (Generic intensification is expressed through the indefinite quantifier verb *eseter* 'much more'.)

(100) *Eri   i-ot   **er-eyja**   **esen** esha   dif.*
       they.PL 3PL-stand CAUS-go.to far   from   I
       'They stood rather far from me.'   [T29]

(101) *Merga no-ma-i   erá   **er-eyj(a)**   **orokec.***
       wood   DNR-far-GIV   THM   CAUS-go.to large
       'The tree is rather large.'   [D]

9.2 Verbal prepositions

Verbal prepositions primarily encode spatial relations, with the notable exception of *okuk* '(be) like'. They have distributional properties similar to spatial prepositions, performing the same grammatical functions served by prepositions, that is, they serve to encode the semantic role of a peripheral argument, such as *dif* 'I' introduced by *esha* in (102). They have been grammaticalized to varying extents, such that some may no longer function as the main verb of a clause. The verbal prepositions *er-esha* (CAUS-from) 'by means of' in (103) or *osuj* 'upon' in (104), function as minor verbs only. Others, like the non-spatial verbal preposition *okuk* '(be) like' in (105), may be the main verb in a clause or function prepositionally, as in (106). Verbal prepositions as minor verbs are not inflected for aspect or modality, nor may they be negated.

(102) *Bua   bi-es   eri   no-kef   **esha** dif.*
       you.SG 2SG-set   they.PL   DNR-here   from I
       'Set those ones away from me.'   [D]

(103) *Dif di-en   fen   Sorong **er-esha**   kewar-miy.*
       I   1SG-come from   Sorong CAUS-from   vehicle-water
       'I came from Sorong by ship.'   [D]

(104) *ofa   eyta   misomok efi eken(a) tin esah **osuj** ofog(a)*
       s/he   take   tobacco   leaf red   also put   upon   flesh
       'he took brown tobacco leaves also [and] put (them) upon (her) flesh   [T7]

(105) *Ofa   **em-okuk**   amok(a)-ir   noga etkebr-(t)ok tin éra.*
       s/he   IRR-(be)like friend-PL   REL near-spot   also NEG
       'He isn't even like his friends who are close (i.e. close friends).'   [D]

(106) *Ofa   eseki medefa owok   **okuk**   mahterew.*
       s/he   fix   sago   outgrowth   (be)like lattice
       'He forms sago branches like a lattice.'   [T29]

The verbal preposition *orosunun* '(up to) limit' or 'until', like the verb *éysaha* 'reach' in (107), points to an initial boundary point and is analogous to the non-spatial preposition *jida* 'until'. It may function to encode a temporal peripheral argument, as in (108), or furnishing more specific locational detail, as in (109), may co-occur with the generic locative preposition *jig* to encode location. It is possibly a fused compound composed of the verbs *er-os* (CAUS-move.horiz.) and *enin* 'measure', with the vowels of *enin* assimilating in backness, as the root-initial vowel raised to /u/. A variant form *orocinin* offers a clue to its original composition.

(107)   *Mif   mi-ebe-skor   **éysaha**   Mona Ciyja gijga.*
         we.PL 1PL-LOAN-school reach   day   five   only
         'We only studied up to Friday.'   [D]

(108)   *Mif   mi-ebe-skor   **er-osunun**   Mona Ciyja gijga.*
         we.PL 1PL-LOAN-study CAUS-limit   day   five   only
         'We studied up to Friday.'   [D]

(109)   *Yua   yu-osiom rot   bar **er-osunun** jig   no-mej   gijga.*
         you.PL 2PL-play   about ball CAUS-limit   LOC   DNR-remote only
         'Play ball at the boundary over there.'   [D]

The verbal prepositions *eresha* 'by means of' and *okuk* 'be like' express prepositional concepts which do not have an equivalent preposition. However, a few other verbal prepositions have a meaning which is nearly synonymous with an analogous preposition, such as the prepositional verb *esha* '(be) from' in (111) is analogous to the preposition *fen* 'from' in (110). However, the distributional properties of verbal prepositions differ from prepositions, as very few verbal prepositions may introduce adverbial clauses.

(110)   *Mioda   ahaw   **fen**   merga   está   no-ma-i.*
         cuscus   descend from wood   fork   DNR-far-GIV
         'The cuscus descended from the tree branches.'   [D]

(111)   *Mioda   ahaw   **esha**   merga   está   no-ma-i.*
         cuscus   descend from wood   fork   DNR-far-GIV
         'The cuscus descended from the tree branches.'   [D]

The intransitive verb *osok* 'climb up' or 'ascend', plus the generic spatial preposition *jig* 'LOC' (112) or more rarely the spatial preposition *fen* 'from' (113), form a verbal preposition construction to introduce a peripheral argument, expressing the meaning 'be concerning' or 'regarding', roughly equivalent to the preposition *rot* 'about'. The Sougb verb *eisaugb* 'ascend' (Reesink 2002b:234) and the Meyah verb *osok* 'climb' (Gravelle 2004:199) also function prepositionally to yield the meaning 'about'.

(112)   *y-ejena   no-ma-i   y-esisga jug   **osok   jig**   ergen   mahina*
      DU-woman   DNR-far-GIV   DU-ask   against   climb.up   LOC   3DUPOS   husband
      'the women questioned [them] about their husband'   [T10]

(113)   *Dif di-esij   mar   **osok   fen**   Tuhan   ofon   ogá.*
      I   1SG-talk.about   thing   concerning   from   Lord   3SGPOS   speech
      'I discussed something from the Lord's Word.'   [D]

A verbal preposition construction composed of the intransitive verb *eyja* 'go (to)' and the inflected verb *er-os* (CAUS-move.horiz.), as in (114), or the intransitive verb *éysaha* 'reach', as in (115), may introduce a temporal or locational peripheral argument. These combinations, analogous to the preposition *jida* 'until', may be translated 'until', 'up to' or 'as far as'.

(114)   *Eri   i-oyk-uka   **eyja er-os**   mon(a)   esif.*
      they.PL   3PL-dance-RED   go.to   CAUS-move.horiz.   day   open
      'They danced on and on until dawn.'   [T14]

(115)   *Bua   bi-en   mar   no-ma-i   **eyja éysaha** jig   ofof.*
      you.SG   2SG-do   thing   DNR-far-GIV   go.to   reach   LOC   border
      'You did that (clearing underbrush) up to the border.'   [D]

Verb-like prepositions (i.e. those which have a non-high vowel root-initial) occur in Meyah (Gravelle 2004:190) and Sougb (Reesink 2002b:230), functioning in a manner similar to the verbal prepositions of Moskona. Verbs expressing location are also found in West Bird's Head languages, such as Tehit and Moi (Reesink 1998:615), but are inflected for subject when they express prepositional notions in SVCs.

9.3 Phrasal constructions incorporating nouns

There are two types of constructions which incorporate nouns to express a single event. They are semantically non-compositional and syntactically restricted. Emotional-state constructions and idiomatic expressions involve a body-part noun as a constituent of the construction, encoding single events which are expressed as single predicates in languages such as English. They are semantically non-compositional, as the sum of the meanings of the individual components do not produce the idiomatic meaning.

9.3.1 Emotional-state constructions

The use of body-part nouns in constructions is a major means of encoding mental processes or emotional states, as well as some physical states in the languages of the island of New Guinea (McElhanon 1977). These emotional-state constructions are employed extensively in Moskona for the expression of emotional states as there are no

dedicated lexical items for these concepts. Similar emotional-state constructions, as body-part noun plus verb constructions, are also used to express emotional states in Meyah (Gravelle 2004:219) and Sougb (Reesink 2002b:209).

The emotional-state construction is composed of a nominal constituent, the possessed body-part noun (§3.1.2.1) plus a verbal one. A noun phrase which refers to the possessor frequently functions as topic in a thematic frame. Syntactic evidence for the noun phrase possessor as topic is found in the presence of a focus adverb, such as *tin* in (116) and (117), occurring between the topic NP which encodes the possessor and the body-part noun as subject. In inalienable possession phrases, focus adverbs may not intervene between the possessor noun phrase and the possessed body-part noun, as in the unacceptable form *orna tin ebir* (man also head). Thus, the focus adverb separates the topic NP from the body-part noun which functions as the subject of the emotional-state construction.

(116)   *Ofon   i-osnok   susuy   **tin**,   i-oduy   os-os*
        3SGPOS   3PL-person   other.kind   also   3PL-front   move.horiz.-RED

        eseter   rot   ni   i-ek....
        much.more   about   for   3PL-see
        'His other relatives also, (they) greatly desire to see ...'   [T29]

(117)   *Ofa   dokun   ofon   amok(a)-ri   **tin**,   i-oduy   os-os*
        s/he   and   3SGPOS   friend-PL   also   3PL-front   move.horiz.-RED

        rot   i-eyta...
        about   3PL-take
        'He and his friends also, (they) want to do ...'   [D]

As the nominal constituent of the construction, the body-part noun (§3.1.2.2.1) may not be modified, but may be inflected with a pronominal prefix indexing the possessor, such as *y-* 'DU' in (118). The verb, which may be intransitive, such as *oska* '(be) acid' in (119), or transitive, such as *ek* 'see' in (123), is marked with third person singular, a null morpheme, expressing the non-human subject. Verbs as a constituent of the construction, may be inflected with all inflectional affixes which may occur on intransitive (and transitive) verbs respectively. However, these constructions subsume the verbs within them, such that, even though the verb may be transitive outside the construction, the verb may not take an object argument, only a peripheral one. (The reciprocal circumfix, as an object argument marked on the verb and not expressed as an NP, is the only exception, as in (123).) Emotional-state constructions may occur with no complement, as in (119), or may take a peripheral nominal complement, such as the pronoun *bua* in (120), or a clausal complement, as in (122), but both nominal and clausal complements require a preposition, such as *rot* 'about', to introduce them. As the first clause in a sentence, an emotional-state construction may be followed by an adverbial clause, such as *ofjig eri noga isirna*, introduced by *ni* 'for' in (121).

(118) *Yef   y-oduy   os-os   rot   marsa ofog no-ma-i.*
we.DU   DU-front   move.horizon.-RED about   game   meat DNR-far-GIV
'We (two) want that game meat.' (front move.horizontally = want)   [T24]

(119) *Ofa   otkon(a) osk(a)   ebr(a)-u-kuk.*
s/he   intestines acid   spread.over-?-along
'He was increasingly furious.' (intestine be acid = enraged)   [TT]

(120) *Dif di-oduy   efef   rot   bua   nom.*
I   1SG-front ache   about you.SG VER
'I really love you.' (front ache = love)   [T7]

(121) *Ofa oduy er-er   ni ofjig eri   noga i-esirn(a).*
s/he front sag.inward-RED   for help   they.PL REL   3PL-sick
'He is compassionate to help those who are sick.' (front sag inward = be
compassionate)   [TT]

(122) *Eri   i-oduy orusohta rot   ohot mow no-kef   erá*
they.PL   3PL-front think   about say   land DNR-here THM

oyf-omof   ni ...
good-RED   for
'They consider that this place is good for ....' (front think = have opinion) [D]

(123) *Es-efer   dokun ej-efer   y-oduy   em-ek-ima.*
male-child   and   female-child   DU-front RECIP-see
'The young man and young woman, (they) desire each other.' (front see =
desire)   [D]

When emotional-state constructions are negated, only the verbal constituent is inflected
with the obligatory mode prefix *em-* 'IRR', such as *os* 'move horizontally (over)' in (124)
or *ebri* 'crack' in (125). In this regard, Moskona contrasts with Meyah in which the body-
part noun plus verb construction allows verbal inflections on either the nominal or verbal
constituent, such as Meyah *mi-em-odou os* (1PL-IRR-liver rub) 'we will want' (Gravelle
2004:220).

(124) *I-osnok   i-erg-em,   i-oduy   em-os-os   rot   éra.*
3PL-person   3PL-NUM:CST   3PL-front   IRR-move.horiz.-RED   about   NEG
'Other people, (they) didn't want it.' (front move horizontally = want)   [T27]

(125) *Dif   di-oduy   em-ebri jig   néesa.*
I   1SG-front IRR-crack LOC   not.yet
'I don't understand (it) yet.' (front crack = understand)   [D]

The nominal constituent of over 200 of these emotional-state constructions in my data is *oduy* 'front', the frontal exterior of the body cavity, which is considered to be the seat of emotion. In Papuan languages which use emotional-state constructions, nouns which denote internal organs tend to be used in constructions which indicate behavior which is not observable, whereas nouns referring to external body-parts are used in constructions expressing behavior which is observable (cf. McElhanon 1977:9). At an earlier time, Moskona may have followed this practice, but the emotional-state constructions used currently do not always make a distinction between observable and nonobservable behaviors by the noun in the construction. A few examples representative of these constructions with *oduy* 'front' are given in the list below.

oduy aksa	(front tall)	'(be) proud'
oduy eciga	(front arise)	'(be) curious'
oduy efef	(front ache)	'feel affection'
oduy efi	(front liquify)	'(be) anxious'
oduy ejgen	(front know)	'desire' or 'will'
oduy ergak	(front two)	'(be) unsure'
oduy ek	(front see)	'desire'
oduy ogma	(front hoard)	'(be) forgetful'
oduy orusohta	(front think)	'consider' or 'hold opinion'
oduy oyfa	(front good)	'(be) pleased'

Other body-part nouns may also be the nominal constituent of an emotional-state construction, such as *oforna* 'bone', *owos* 'skin' and *ewek* 'gallbladder', as in constructions:

With *oforna* 'bone'

oforna egerag	(bone weak)	'(be) lethargic'
oforna ahaysa	(bone hard)	'(be) invulnerable'
oforna owas	(bone strong)	'(be) adversarial'

With *owos* 'skin'

owos ewek	(skin thickened)	'(be) callous'
owos ogugur	(skin shudder)	'feel revulsion'
owos esis	(skin exclude)	'(be) irritated' or 'annoyed'
owos osuy	(skin shudder)	'(be) shocked'

With *otkona* 'intestines'

otkona oska	(intestines acid)	'(be) furious' or 'enraged'

With *ewek* 'gallbladder' (considered to be the seat of intellect)

       ewek ahra   (gallbladder crunch) '(be) smart' or 'quick to understand'

In addition to physical body-part nouns, Moskona also employs the inalienable noun *efena* 'spirit' to form mental process or emotional-state constructions, as in:

efena ebra	(spirit spread over)	'(be) conscious' or 'awake'
efena egirgir	(spirit blaze)	'(be) nervous'
efena eker	(spirit sit)	'(be) accustomed to'
efena erecef	(spirit step.back)	'(be) conscious'

A few body-part nouns, such as *ebir* 'head' and *oduy* 'front', are also used to express physical states or responses, such as nausea (128), dizziness (126), drunkenness (127) and a state of breathlessness (i.e. panting) (129).

(126)   *Ofa   ebir   ernohuy.*   (127)   *Ofa   ebir   ernof.*
         s/he head lightheaded   s/he head dizzy
         'He is dizzy.'   'He is drunk.'

(128)   *Ofa   oduy   ebjij.*   (129)   *Ofa   oduy   efena.*
         s/he front heave   s/he front emanate
         'He is nauseous.'   'He pants.'

There is a tendency among younger speakers to omit the nominal constituent in more common expressions, employing only the verb to express the emotion. In (130) and (131) the body-part noun *oduy* 'front' has been elided in the emotional-state constructions *oduy osos* (front move.horizontally) 'want' and *oduy efagigow* (front rejoice).

(130)   *Eri   noga i-**os-os**   ni   i-ot-ohobta   televisi*
         they.PL REL 3PL-move.horizon.-RED   for   3PL-stand-watch television

         erá   deke.
         THM   may
         'Those who want to watch television, may.'   [D]

(131)   *Ofa   en   mar   ni   er-**efagigow**   rot   ofaha.*
         s/he do   thing for CAUS-joyful about 3SGRX
         'He does it to enjoy himself.'   [D]

There are also a few emotional-state predicates which employ more than one body-part noun, such as *oduy* 'front' and *efena* 'spirit' used together. In (132) the inalienable noun *efena* 'spirit' possessed by *oduy* 'front' functions as nominal element and the intransitive verb *osusun* 'gasp' as the verbal.

> oduy efena ebker   (front spirit split.in.two)   'startled'
> oduy efena orosusun   (front spirit gasp)   'terrified'

(132)   *Ofa, oduy efena er-osusun rot   ewer mosuga no-ma-i.*
         s/he   front spirit CAUS-gasp about cross bridge DNR-far-GIV
         'He, (he) was terrified to cross the hanging bridge.'   [D]

9.3.1.1 Collapsed emotional-state predicate

Some emotional-state constructions have collapsed, resulting in new lexical forms. The emotional-state construction *otkona oska* (intestines acid) 'enraged' has collapsed for some speakers to form a single lexeme *otkonoska* [otkonóska] 'enraged'. The extant intransitive verb *efagigow* '(be) joyful', as in (131), is a collapsed form of the emotional-state construction *oduy efega oyka* (front body dance), the body-part noun *oduy* having been elided, while the other two parts have fused. The full emotional-state construction is still used in Meyah as *odou efaga oika* (liver body dance) '(be) happy' (Gravelle 2004:391).

The predicate structure expressing the concept '(be) innocent' is a collapsed emotional-state construction, composed of initial fragments of a possessive pronoun (§5.1.2), plus the final two segments of the verb *ebah* 'live', /ah/. These fragments, which suggest the former presence of a noun (possibly a body-part noun) in the construction, are utilized as person-number markers, such as *bu-* '2SG' (133), from the possessive pronoun *buwun* '2SGPOS', *yefg-* '1DU' (134), from *yefyen* '1DUPOS', and *of-* '3SG' (135), from *ofon* '3SGPOS'. The segments of some of the person-number markers are not completely consistent with the segments in the possessive pronouns, such as the presence of /g/ in the person-number markers *yefg-* '1DU' and the presence of /y/ in *yerg-* '3DU' suggest an earlier paradigm for the possessive forms. The semantic equivalent in Meyah, the emotional-state predicate *odou ebah* (front live) '(be) innocent' still functions as an emotional-state predicate (Gravelle 2004:410).

The person-number markers indicating subject on the verb *ah* '(be) innocent' are:

Singular		Dual		Plural	
du-	1	*yefg-*	1	*mifm-*	1
bu-	2	*yog-*	2	*yu-*	2
of-	3	*yerg-*	3	*eri-*	3

(133)   *Bua   bu-ah   nom.*   [buáx]
         you.SG 2SG-innocent VER
         'You are truly innocent.'   [D]

(134)   *Yef*   **yefg-ah**   *nom.*   [jɛɸgáx]
         we.DU   2DU-innocent   VER
         'We two are truly innocent.'   [D]

(135)   *Ofa*   **of-ah**.   [oɸáx]
         s/he   3SG-innocent
         'He is innocent.'   [D]

Some of these forms, such as *bu-ah(a), of-ah(a), yuah(a),* and *eri-aha,* are homophonous with the reflexive pronouns (§5.1.3)

9.3.2 Idiomatic expressions

There are a number of phrasal constructions, encoding emotional states or activities demonstrating an emotional state, which serve as idiomatic expressions (words which form a unit whose meaning cannot be found from the sum of its members), and which share some features of emotional-state constructions. They are mentioned here because, like emotional-state constructions, they are composed of two parts, a verbal component and a body-part noun. However, in these idiomatic expressions the possessed body-part noun is not subject but object of the predicate. The possessor of the body-part noun is co-referent with the subject, such as *i-* '3PL' marks possessor on *oduy* in (136) and *owja* in (137). The object noun is marked for possession by pronominal prefix, and like emotional-state predicates, may not be determined or modified by a nominal modifier, such as a possessive pronoun, demonstrative pronoun, specifier, numeral, or adjectival verb.

(136)   *Eri*   **i-em-om**   **i-oduy**   *ni   mona noga ofa em-oksomus.*
         they.PL   3PL-IRR-enclose   3PL-front   for   time   REL   s/he IRR-return
         'They will hope for the time that he will return.' (enclose front = hope) [TT]

(137)   *I-osnok*   *no-ma-i*   **i-oks(a)**   **i-owj(a)**   *rot   ofa.*
         3PL-person DNR-far-GIV   3PL-over.turn   3PL-lip   about s/he
         'Those people praised him.' (over turn lip = praise)   [D]

A number of these idiomatic expressions are transitioning to verb compounds as evidenced by co-existing forms, such as *i-os i-efena* [us iɸéna] ~ *i-os-efena* [úsɛɸɛna] (3PL-move.horiz. spirit) 'advise'. A few additional idioms are given below:

os   ogá   'berate'
grate speech

om   eteyja   'pray'
enclose eye

om   ebir   'struggle in/persist in s.t.'
enclose head

os   oduy   'be disappointed'/'regret'
sever front

Chapter 10
Embedded clauses

10.0 Introduction

This chapter presents two types of clauses which may be constituents of a another construction, that is, two types of clauses which may be embedded within another syntactic unit. Relative clauses, presented in §10.1, may be modifiers of a head noun in a noun phrase and may serve as the subject or object argument in a verbal clause, and complement clauses, presented in §10.2, may serve as the object argument of a complement-taking predicate. Adverbial clauses, which may also be considered embedded clauses, are not included here, but presented with conjoined clauses in Chapter 11.

10.1 Relative Clauses

A relative clause (RC) is a subordinate or dependent clause (Givón 1990:645), which always functions as a constituent of another construction, that is, it may be embedded within a noun phrase as a modifier or may function as a constituent of another clause, such as a core argument.

There are two broad categories of relative clauses which occur in Moskona, restrictive and non-restrictive relative clauses. The vast majority of relative clauses in my data are restrictive relative clauses, that is, they restrict the domain of the noun they modify, functioning as anaphoric references and identifiers (cf. Givón 1990:645). Those relative clauses which are non-restrictive add information which the speaker deems useful to the hearer.

10.1.1 Restrictive RCs

RCs are composed of a head noun followed by the invariant relativizer *noga*[56] 'REL', which introduces a restrictive clause. A head noun, such as subject noun *memsa* in (1) or the object noun *mar* in (3) may be relativized to form the typical structure of a RC, as in (2) and (4). The relativizer plus restricting clause are placed in brackets in examples in this section.

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[56] The relativizer *noga* is composed of the deictic nominalizer *no-* plus the relativizer root *–ga*.

(1) ***memsa***   *em-et   mem-kokar efer*
     k.o.bird.of.prey IRR-eat bird-crow   child
     '*memsa* would eat chicks'   [D]

(2) ***memsa***   [*noga   em-et   mem-kokar   efer*].
     k.o.bird.of.prey REL   IRR-eat bird-crow   child
     '*memsa* who would eat chicks'   [D]

(3) *dif di-ek   **mar** no-ma-i*
     I   1SG-see thing DNR-far-GIV
     'I saw that thing'   [D]

(4) ***mar***   [*noga dif di-ek*]   *no-ma-i*
     thing REL   I   1SG-see DNR-far-GIV
     'the thing that I saw.'   [D]

A determiner may occur following a RC, marking the boundary of the NP, such as the
demonstrative pronoun *nomi* in (4) or the textual enclitic *-mis* 'former' in (5).

(5) *Mu-eyja mi-okuc   gug **ofa** [**noga oduk   mif**]=**mis-i**.*
     1PL-go 1PL-show go s/he REL   order we.PL=former-GIV
     'We went to show him who sent us.'   [T17]

The post-nominal placement of the restricting clause is typologically consistent with SVO
languages (Keenan 1985b:144, W. Lehmann 1986). This placement is also found in other
languages in the Bird's Head, such as Meyah (Gravelle 2004:269), Sougb (Reesink
2002b:251), Hatam (Reesink 1999:112), Abun (Berry and Berry 1999:146), and Mpur
(Odé 2002:85).

The primary strategy utilized in Moskona to form restrictive RCs is the "gap" type (cf.
Comrie 1989:147), one which is most commonly found in languages with rigid word
order (Givón 1990:659), such as Moskona. In this strategy, the relative clause is said to
be missing one argument, the one which is co-referential with the head noun, that is, the
head of the relative clause is interpreted as having the role of the missing argument inside
the restrictive clause. As Moskona lacks an explicit means to encode subject or object,
word order serves to interpret the role of the absent obligatory argument, such as the
object *miyes* 'clothes' in the RC *noga dif diref ni maw* in (6), the "gap" in the restricting
clause being indicated by 'ø'. Hence, the role of the missing argument is recoverable.

(6) *Miyes*   [*noga dif di-er-ef*   ø   *ni   maw*] *erá   aharga jog.*
     clothes REL   I   1SG-CAUS-distribute   on sun THM dry   already
     'The clothes which I spread out in the sun are already dry.'   [D]

10.1.2 Heads of a RC

A relativized noun head may be a common noun, such as the generic noun *mar* 'thing' in (7) or *mesina* 'string bag' in (8), a proper noun, such as *Isisge* in (9), or a personal pronoun, such as *eri* 'they.PL' in (10).

(7)　　**mar**　[*noga efi*]　　no-ma-i　romreg　ororum
　　　　thing　REL　longtime　DNR-far-GIV　all　　be.lost
　　　　'all the things (traditions) which were old have been lost'　　[T12]

(8)　　**Mesina**　[*noga dadin*]　*erá dif*　*di-oduy*　*ohta*
　　　　string.bag　REL　1SGPOS　THM　I　1SG-front　suck
　　　　'The string bag which was mine, I forgot'　　[D]

(9)　　*i-oyka-mers(a)*　kerenga **Isisge** [*noga ogos*] *no-mis-i*
　　　　3PL-dance-floor　upon　Isisge　REL　die　DNR-former-GIV
　　　　'they indoor-danced (in celebration) over the Isisge who died'

　　　　　　　　　　　　　　　　　　　　　　[T25]

(10)　　**eri**　　[*noga i-en-owha*　*sokomow*] *no-mis-i,*　　*eri*　*i-eyja ...*
　　　　they.PL　REL　3PL-DUR-leave　beginning　DNR-former-GIV　they.PL　3PL-go
　　　　'they who had been leaving first, they had already gone ...'　　[T14]

The noun head may be omitted, but one of its modifiers, such as the specifier *ergem* in (11), or an interrogative word, such as *midá* in (12), may stand in its place as head of the relative clause.

(11)　　*Edá* **erg-em**　[*noga en-ah*　*jig erga*]　*erá,*　*ofa ejeka*　*okuk ofon..*
　　　　then　NUM:1-CST REL　DUR-lie　LOC left.side　THM　s/he call.out　like3　SGPOS
　　　　'Then the other one who was on his left, he called as his ...'　　[T7]

(12)　　*Yoga*　*y-en* **midá** [*noga esebra*]　*no-ma-i?*
　　　　you.DU　DU-do what　REL　continuous DNR-far-GIV
　　　　'You (two) are doing what which is all the time?'　　[T23]

10.1.3 Predicates in a RC

Any grammatical unit which can function predicatively in an independent clause can function as a predicate in a RC. In addition to verbs, the predicate of a RC can be a nominal, such as *ijewjenir* in (13), a numeral-classifier construction, such as *ibah tahgur* in (14), a possessive pronoun, such as *buwun* or *dadin* in (15), a specifier standing in the position of a nominal, such as *ergem* in (16), or an adverb, such as *rahu* in (17).

(13)   *eri-orna   i-eyta   eri-ej-a*   [*noga   **i-ejewjen(a)-ir***]   *tin.*
        they-man 3PL-take they-female-PGE   REL   3PL-young.woman-PL also
        'the men also took them (females) who were young women.'   [T7]

(14)   *Eri   [noga **ibah   tahgur**] no-ma-i   i-owha   jog.*
        they.PL REL   HUMAN   four   DNR-far-GIV   3PL-leave already
        'They who were four, have already left.'   [D]

(15)   [*Noga   **buwun**] erá   susuy   fen   [noga **dadin**].*
        REL   2SGPOS THM   other.kind from   REL   1SGPOS
        'The one which is yours is a different kind than the one which is mine.' [D]

(16)   *Ofa os   meres   [noga **erg-em**]   tas   [noga owoka   meres   ekena].*
        s/he cut sugarcane REL   NUM:1-CST again REL   name   sugarcane red
        'She cut one more sugarcane which its name was red sugarcane.'   [T]

(17)   *Bua   bi-en   midá [noga **rahu**],   erogá bi-en-éysaha=kef?*
        you.SG 2SG-do what REL   long.time hence 2SG-DUR-reach=here
        'You have been doing what for so long so you are arriving now?'   [D]

There are two constructions which have not been observed as predicates in a simple declarative clause that do appear as predicates in a restricting clause. Prepositional phrases, such as *fen mogug dokun mester mogom* in (18), and purpose clauses, such as *ni yosok jig mod orokec* in (19), may also function as the restricting clause in a RC.

(18)   *.. merah   [noga **fen   mogug dokun   mester   mogom**] no-ma-i*
          fire   REL   from tinder   and   plate   stone   DNR-far-GIV
        '..the fire which was from the tinder and stone plate'   [T2]

(19)   *Eysaha mona [noga **ni   y-osok   jig mod   orokec.**]*
        reach   day   REL for DU-climb.up LOC house   large
        '(It) reached the time for them to go up to the main house.'   [T23]

Restrictive RCs may be composed of clauses with simple predicates, such as those given in the preceding discussion, but they may also be complex, such as the RC in (20) which contains a complex sentence composed of the simple predicate *edegejga* followed by the purpose clause *ni eri it* (for they eat).

(20)   *Mar* [***noga edegejga ni eri   i-et***]   *erá   megigra, mana,*
        thing REL   match.up for they.PL 3PL-eat THM   pineapple k.o.greens

meresa.
sugarcane
'Things which are appropriate for them to eat are pineapple, greens and
sugarcane.'   [T21]

As is typical of post-nominal RCs (cf. Keenan 1985b:161), RCs in Moskona have a main
verb which is fully inflected, that is, there is no reduction in aspect, mode or subject
marking on verbs occurring in a RC, such as the durative aspect marker *en-* 'DUR' which
indicates progressive on the verb *og* 'gouge' in (21) or the mode marker *em-* 'IRR' which
occurs on the verb *ok* 'bear' in (22).

(21)   *...m-ok-era   ek   mar* [*noga m-ok-esa   **en-og**   jig*
         NR-sib.s.s.-old.   see   thing REL NR-sib.s.s.-yg   DUR-gouge   LOC

mosha   owos]   *no-ma-i...*
k.o.tree skin   DNR-far-GIV
'...the older sibling saw the thing younger sibling was drawing on the *mosha*
bark...'   [T7]

(22)   *Ejena* [*noga **em-ok** efer*] *erá   eti   efer   efef.*
        woman   REL IRR-bear child THM   suffer child   ache
        'The woman who would bear a child suffers child ache (labor pains).' [D]

The predicate of a RC can be negated, such as the intransitive verb *esirna* 'be sick' in (23)
and the nominal predicate *Moskona* in (24). Predicates of RCs can be independently
negated without ambiguity, as only verbs marked with *em-* 'IRR' are affected, such as the
verb *ot* 'stand' in the RC in (25).

(23)   *Ofa   erá*   [*noga **em-esirn(a)** éra*].
        s/he   THM   REL   IRR-sick   NEG
        'He is [the one] who is not sick.'   [D]

(24)   *Ejena   erg-es*   [*noga   **Moskona gurá***]
        woman   NUM:1-one   REL   Moskona NEG
        'a woman who was not Moskona'   [D]

(25)   *Mek ejmeg efenda er   jig   memeg(a) ejmeg* [*noga merga **em-ot***
        pig   spine dense   grow LOC   mountain spine REL   wood   IRR-stand

        *jig **éra***].
        LOC NEG
        'Thick pig's spine ferns grow on mountain crests where there aren't trees.' [D]

10.1.4 Syntactic positions relativized

In Moskona, all nominal constituents of a clause, both core and peripheral arguments, as well as genitives and instruments may be relativized in RCs with external heads. Examples of each are presented below.

10.1.4.1 Relativized subject

Although some languages do not allow the subjects of transitive verbs to be relativized (Keenan 1985b:159), the subjects of transitive verbs, such as *mar midá* in (26) and *eri* in (27), as well as, the subjects of intransitive verbs, such as *merga* in (28) and *moroj* in (29) may be relativized.

(26)   ***Mar midá*** [*noga er-en   ofa   owos en-ofufom*]*?*
        thing what REL   CAUS-do   s/he   skin DUR-hot
        'What thing is it which is causing his skin to be hot?'   [T29]

(27)   *Mod no-ma-i   ofon   ofuy   ni   **eri***   [*noga i-ef   mosta*].
        house DNR-far-GIV   3SGPOS function for they.PL REL   3PL-shoot prey
        'That house has the function [as a platform] for them who shoot prey.' [T3]

(28)   ***Merga*** [*noga   orokec*] *erá   en-ot   i-ba=eyj(a).*
        tree   REL   big   THM   DUR-stand VIS-across=THITHER
        'The tree which is big is over there.'   [D]

(29)   *bi-orot   **moroj*** [*noga ahaw   jig   pasar*].
        2SG-go.with path   REL   descend LOC   market
        'you follow the path which descends to the market'   [D]

10.1.4.2 Relativized object

Object arguments may be relativized, such as the generic noun *mar* in (31) or the noun *ejena* 'woman' in (30), leaving a "gap" in the RC, indicated by ø.

(30) ***Ejena*** [*noga momha en ø*] *erá   ofa   owha ...*
      woman REL insanity do   THM s/he leave
      'The woman who insanity affected (crazy), she left ...'   [T23]

(31) *Bua   bi-eg **mar** [*noga mosu   odu ø   gug*].*
      you.SG 2SG-hear thing REL mother speak   goal.
      'You heard what mother told you.'   [D]

A shared argument, such as *meni owoh* 'banana flesh' in (32), which functions as the object of *oyna* 'cook' and the subject of *efieyja* '(be) ready to eat', may be extracted leaving the second predicate of the SVC stranded.

(32) *Bua   bi-ec **meni owoh** [*noga eri   i-oyna ø   efieyj(a)*
      you.SG 2SG-buy banana interior REL they.PL 3PL-cook   ready.to.eat

      jog].
      already
      'You bought the banana flesh which they already had cooked to readiness.' [D]

When a possessed alienable noun occurs as the head noun of a RC, in a manner similar to relativized object arguments, it is extracted to occur preceding the RC, leaving the possessive pronoun stranded, such as *ofon* '3SGPOS' in (33) and *dadin* '1SGPOS' in (34).

(33) *Edá, efer* [*noga Iwari **ofon** ø*] *no-mis-i,   ofa ebisa esebra.*
      then child REL Iwari 3SGPOS   DNR-former-GIV s/he cry   continuous
      'Then, the child who was Iwari's, he cried continuously.'   [T10]

(34) *Mesina   [*noga **dadin**   ø*] *erá   dif di-oduy   ohta..*
      stringbag REL 1SGPOS   THM I   1SG-front suck
      'The stringbag which was mine, I forgot ..' (front sucks = forget)   [D]

10.1.4.3 Relativized peripheral arguments

When the head noun functions as a peripheral argument in the restricting clause, it leaves a "gap" stranding the preposition which encodes its semantic role. Peripheral arguments of a RC may express the roles: goal, such as *ofa* 's/he' in (35), beneficiary, such as *ifer* 'children' in (36), or location, such as *mer* 'room' in (37) or *moroj* 'path' in (38).

(35) ***Ofa*** [*noga mifin   m-edina   i-og-i-ef   gug ø sis   jog*] ...
      s/he REL 1PLPOS NR-grandparent 3PL-bend-?-near to past already
      'He whom our ancestors bowed to (honored) in the past...'   [TT]

(36)   **I-efer**   [*noga mona ofoj   edegejg(a) ni   ø*]   *i-ek...*
        3PL-child   REL   day   pre-set   match.up   for   3PL-cut.w.bamboo.knife
        'The children for whom the appointed time is appropriate, (they)cut...' [D]

(37)   *Mer-aj   erá   **mer**   [noga eri-ej-a   i-ah   jig   ø].*
        room-female THM   room   REL   they.PL-female-PGE 3PL-lie   LOC
        'The female room is the room that the women sleep in.'   [D]

(38)   *ofa ohsud(a) jig **moroj**   [noga eri   i-ewer   jig ø]   no-mis-i.*
        s/he search.for LOC path   REL   they.PL 3PL-pass LOC   DNR-far-GIV
        'he searched (for it) at the path which they had passed on...'   [T7]

10.1.4.4 Relativized genitives

A possessor may function as the head noun of a RC whether the possessed is an inalienable noun or an alienable noun. In (39), the pronoun *eri* is the possessor of *i-egak* 'their legs' and in (40), *osnok* is the possessor of *mod* 'house'.

(39)   *Ergog y-eyta mar y-er-ojuj   **eri**   [noga i-egak   éra].*
        they.DU DU-take thing DU-CAUS-hire they.PL REL   3PL-leg   throb
        'They (two) paid with something those whose feet throbbed.'   [T25]

(40)   *Ofa eyja edis skod **osnok**   [noga ofon   mod] no-ma-i.*
        s/he go   miss to   person   REL   3SGPOS house DNR-far-GIV
        'He went directly to the person who owned the house.'   [D]

10.1.4.5 Relativized instrument

Instruments are primarily expressed in a SVC (§9.1.2.6) as the object argument of a manipulative verb, not as a peripheral argument coded by a preposition. Thus, when they are relativized, the role of the head noun is not coded by a (stranded) preposition as are peripheral arguments. Relativized instruments are not constituents of the restricting clause, thus there is no "gap" to encode its role in the RC. The instrument role is implied and the instrument cross-referenced on the verb of the restricting clause by the causative prefix *er-*, such as on the verb *er-ef* (CAUS-shoot) in (41), or on the verb *er-osotka* (CAUS-marry) in (42), signaling the instrument or means employed in the execution of the action.

(41)   *Ofa ohsud(a) ofon   marog   [noga **er**-ef   mek, erogá edis]...*
        s/he search.for 3SGPOS arrow   REL   CAUS-shoot pig   hence miss
        'He searched for his arrow (with) which he shot (at) the pig, then missed...' [D]

(42)   *Miy, mek, mar* [*noga ni i-**er**-osotka*],   *efer   owas eseter.*
     cloth pig   thing REL   for 3PL-CAUS-marry price strong much.more
     'Cloth, pigs, things (with) which they marry, the price is very high.'   [T16]

A head noun, serving as the object argument of the manipulative verb *or* 'hold' in the main clause, may be the implied instrument in the restricting clause, such as *meserf ofog* 'pointed spoon' in (43), and *mesef* 'arrow' in (44).

(43)   *Ofa or   meserf ofog   erá   [noga **er**-ecka   marowok]*
     s/he hold spoon   pointed THM REL CAUS-serve vegetable
     'She held (used) a pointed spoon (fork), [it was] what she served vegetables with..'   [D]

(44)   *Ofa   or   mesef erá   [noga   er-ef   mek].*
     s/he   hold   arrow THM   REL   CAUS-shoot pig
     'He held (used) an arrow, [it was] what he shot the pig with.'   [D]

10.1.5 Relativizer unexpressed

The relativizer *noga* may be optionally unexpressed, yielding a restricting clause which is syntactically embedded in the noun phrase, such as the restricting clause *ah emba* in (45) or *ah esen* in (46). Generally, only relativized subject arguments with verbal predicates in the restricting clause may occur without the relativizer. The restricting clause is typically limited to no more than three words. A demonstrative may follow the restricting clause, such as *nomi* follows *ah jig efenok* in (47) or *enebah* in (48), clearly marking the boundary of the noun phrase.

(45)   *Dif di-odu mar [ah emba] rot   ofa.*
     I   1SG-tell thing lie rotten about s/he
     'I told something (which) was rotten (negative) about him.'   [D]

(46)   *Eri   i-en   fen   mow   [ah esen].*
     they.PL 3PL-come from land   lie distant
     'They came from the place (which) was far away.'   [T17]

(47)   *di-ek   marefen ewet   [ah jig efenok] no-ma-i.*
     1SG-see grass   semi-solid lie LOC intestine DNR-far-GIV
     '(I) saw the semi-solid (half-digested) grass (which) was in its gut.'   [D]

(48)   *orna ekena [en-ebah] no-ma-i   erá, ofa   eyta* ..
     man red   DUR-live DNR-far-GIV THM s/he   take
     'the man (who) remained, he took...'   [T7]

Only one example of a relativized object argument with the relativizer unexpressed was found in my data. This situation may be possible only because the expression of an uncontrolled state (§8.4.1.2.2) requires that the volitional participant, such as *ejena* 'woman' in (49), be the object/undergoer of the transitive verb *en* 'do'.

(49)   *Ejena*   [***momha en***] *no-ma-i*   *ojok*   *yefyen ayok,*   *erogá*   *ogos.*
          woman   insanity do   DNR-far-GIV hit   3DPOS   mother hence   die
          'The woman (who) was crazy hit their mother so she died.'   [T23]

10.1.6 Behavioral properties

10.1.6.1 Multiple restrictive RCs with same head noun

A single head noun may be modified by more than one RC, although instances of more than two RCs modifying the same head have not been attested. The RCs may occur juxtaposed, as in (50) and (51) or be conjoined by a conjunction, such as *dokun* in (52).

(50)   *ofa os*   *meres*   [*noga erg-em*   *tas*]   [*noga owoka   meres   ekena*]
          s/he sever sugarcane   REL   NUM:1-CST again   REL   name   sugarcane red
          'he cut one more sugarcane (stalk) which its name was red sugarcane.' [T23]

(51)   *.. of   merga* [*noga orokec*] [*noga owoka   mocod*].
            fell   wood   REL   large   REL   name   k.o.tree
          ..(he) felled the large tree which its name was *mocod*.'   [T7]

(52)   *Ejena   erg-es*   [*noga Moskona   gurá*] *dokun* [*noga ojga   fen*
          woman   NUM:1-one   REL   Moskona   NEG   and   REL   originated   from

          mow   M(ar)usum] *erá   eker   jig   no-mej.*
          land   south.coast   THM   sit   LOC   DNR-remote
          'A woman who was not Moskona and who originated from the south coast area, sat yonder.'   [T29]

10.1.6.2 Recursive embedding of restrictive RCs

A relative clause can be embedded within another relative clause, such as the RC *noga oyfomof* in (53) modifies the compound *eteyj-ah* 'life', which is the nominal predicate of the restricting clause headed by the pronoun *eri*. In (54), the RC *noga oyna mar-mosorna* is headed by the noun *efca* which is the nominal predicate in the RC which is headed by the pronoun *ofa*. In (55), the RC *noga oyfomof* and the demonstrative pronoun *nomi* modify *ejena*, the subject of the RC headed by the noun *yefer*.

(53) *Ofa ohojoh eri*   [*noga erin   eyteyj-(eb)ah* [*noga oyf-amof*]].
s/he ruin   they.PL REL 3PLPOS eye-(a)live   REL   good-RED
'He ruined (for) them what was their life which was very good.' (eye-alive =
life)   [D]

(54) *ofa* [*noga efca*   [*noga oyna mar-mosorna*]] *no-mis-i*
s/he REL   group REL   cook thing-hunger   DNR-far-GIV
'the person who was in the group who cooked the food...'   [T29]

(55) *y-efer*   [*noga ejena*   [*noga oyf-omof*] *no-ma-i*   *ofon*]
DU-child   REL   woman REL   good-RED DNR-far-GIV   3SGPOS
'the (two) children of the woman who was good (sane)'   [T23]

10.1.6.3 Extraposed RCs

Relative clauses may also be extraposed, that is, placed away from the head noun, such
that the head noun and the RC are not constituents of the same noun phrase. The RC
occurs outside of the noun phrase. For example, in (56) the head noun *mar* is followed by
the focus adverb *romreg*, extraposing the RC *noga enah jig mod nomi* to the end of the
clause, in (57) the nominalized specifier *mergem* occurs immediately following the
nominal compound *miy ewet*, extraposing the RC *noga ofon efer onot jig*, and in (58) the
head noun *erurna* is followed by the prepositional phrase *jig Moskona sokomow*,
extraposing the RC *noga umor mod-miy néesa*.

(56) *Edá, ergog y-okues   jug   gug* **mar** *romreg* [**noga en-ah jig**
then   they.DU DU-coax   against   to   thing all   REL DUR-lie LOC

mod no-ma-i]   *esha ni...*
house DNR-far-GIV   from for
'Then, they two persuaded everything which was in that house in order that...'
                                                              [T23]

(57) *éysaha jig* **miy ewet**   *m-erg-em*   [**noga ofon   efer**
reach   LOC water semi-solid NR-NUM:1-CST   REL   3SGPOS child

en-ot jig]   *no-ma-i.*
DUR- stand   DNR-far-GIV
'(when she) reached the river bank's other side which her son was standing on.'
                                                              [T7]

(58)   *Dif di-osot-a   mar rot **eri-orna**   sokomow jig   Moskona*
       I   1SG-count-PGE thing about they.PL-man beginning LOC   Moskona

       sokomow [***noga i-em-or   mod-miy   néesa***]*,...*
       beginning REL   3PL-IRR-build   house-water not.yet
       'I'm recounting about men of long ago in the long ago Moskona area, who
       before they had built houses on the ground,..'   [T3]

This extra-positioning seems to be due to the syntactic complexity of the sentence in
which the head noun is also modified by a focus adverb, specifier or prepositional phrase.
(Focus adverbs (§4.1.2.1.4) may modify a head noun, but are not constituents of the noun
phrase.) The noun phrase with a longer relative clause followed by a one of these types of
modifiers is syntactically awkward. Thus, the noun head and the restricting RC need not
be adjacent if the temporal distance is not too great.

10.1.7 Pronoun-retention RCs

In Moskona, a rare but more explicit strategy, pronoun-retention, is sometimes used for
identifying the grammatical relation of the head noun. A pronoun copy of the relativized
nominal is retained within the RC, and thus, its position or prepositional coding indicates
the grammatical relation of the relativized noun phrase. This situation is quite possibly
due to co-reference relations across the intervening clause which are strained, thus an
anaphoric pronoun is used. For example, the relativized object *efer* 'child' in (59) is co-
referent with the pronoun copy *ofa*. In (60), the relativized peripheral argument *isnok*
'people' is co-referent with the pronoun copy *eri* 'they.PL'.

(59)   ***Efer*** [*noga mowga ociga **ofa***]*, edá   efer   no-ma-i,   ofa   eti...*
       child REL   boil   strike s/he   then   child DNR-far-GIV s/he   suffer
       'The kid who had a boil, that kid, he suffered ...'   [D]

(60)   *y-eseki mersa ni **i-osnok**   [*noga meren*] [*noga ergog   y-eyj   mofga*
       DU-fix   floor for 3PL-person REL   lake   REL   they.DU DU-toss palm.rib

       *skod **eri***]   *no-mis-i*
       to   they.PL DNR-former-GIV
       'They fixed up a (dance) floor for those many people who they had invited.'
                                                                         [T9]

Occasionally the noun itself is repeated in the RC, as in (61) where the relativized object
noun *mar* is repeated, or in (62) in which the relativized possessed noun *mod* is repeated.

(61) *Esha ofa ebrekirk(a) em-eg **mar** [noga ofon   ekok odu **mar**] éra.*
      from s/he stubborn   IRR-hear thing REL 3SGPOS father tell thing NEG
      'The reason is [that] he is stubborn not hearing (obeying) what his father tells
      (him).'   [D]

(62) *Ergog y-éysaha jig **mod** [noga ejena   Okuskuimi   ofon   **mod**].*
      they.DU DU-reach LOC house REL woman Okuskuimi 3SGPOS house
      'They (two) reached the house which the woman Okuskuimi owned.'   [T25]

10.1.8 Headless RCs

When the referent of the head noun is already known, the head noun may be elided,
yielding a headless RC. Givón (1990:683) has asserted that headless RCs are restricting
clauses modifying a pronoun which is absent in the surface representation. Thus, a
headless RC may fill any position characteristically filled by a noun phrase, such as the
subject or object of a verbal clause, as in (63) and (64), the nominal predicate, as in (65),
the constituent of a frame, as in (66), the complement of a (verbal) preposition as in (67)
or the object of the manipulative verb in an instrument SVC, as in (68). Headless RCs may
be modified by a determiner, such as the demonstrative pronoun *nomi* in (64) and (68).
The predicates of the restricting clause of headless RCs are limited to nominal, verbal or
adverb predicates. Restrictive RCs composed of other elements, such as prepositional
phrases or purpose clauses functioning predicatively, have not been attested.

(63) [***Noga m-ok-era***]   *erá edem ofon   mohena jig meres(a) efca...*
      REL   NR-sib.s.s.-old. THM hide 3SGPOS wife   LOC sugarcane group
      '(The one) who was the older sibling hid his wife in the sugarcane stand..'[T23]

(64) *Eri   i-or   ariawun   i-er-efet   [**noga   etma   esejga**]*
      they.PL 3PL-hold medicinal.treatmt 3PL-CAUS-swab REL   arm   swell

      no-ma-i.
      DNR-far-GIV
      'They swabbed (the one) whose hand was swollen with medicine.' (lit. they hold
      drug swab that one his arm swell)   [T29]

(65) *Ida   [**noga   en-oduk   bua**]?*
      who   REL   DUR-order you.SG
      'Who is (the one) who is sending you?'   [D]

(66) [***Noga   sokomow***] *erá   ofon   ofuy   ohot   raja ...*
      REL   beginning THM 3SGPOS meaning say   king
      '(The one) that was (in) the beginning, its meaning [was] that the king ...'[TT]

(67)   *os   meres   okuk* [***noga ofon   y-efer   y-odu   gug***] *no-mis-i..*
        cut sugarcane like   REL 3SGPOS DU-child DU-tell to   DNR-former-GIV
        '(She) cut the sugarcane like (the way) which her children told her to.' [T23]

(68)   *Ofa or*   [***noga efen-ir-ah***]   *er-eg(a)*   [*noga   ofon   ewes*].
        s/he hold   REL new-?-INTNS   CAUS-trade   REL   3SGPOS cavity
        'He exchanged (the one) which had holes with [the one] which was new.' [D]

Spatial deictics, such as *–mej* 'remote' and *–ba* 'across', may be cliticized to the relativizer *noga* to forming a headless RC (§5.2.5). This RC may fill the position of nominals, such as the object argument *nogubeyja* in (70), or *noguba* in (71), or the complement of the generic preposition *jig* 'LOC', such as *nogumej* in (69). However, no occurrences of the compound as a subject argument have been observed.

(69)   *Ofa   eyja jig   **nog(a)-u-mej**.*
        s/he   go.to LOC   REL-NONVIS-remote
        'He went to the place yonder.'   [D]

(70)   *Bua   bi-eyta   **nog(a)-u-b(a)=eyj(a)**.*
        you.SG 2SG-take   REL=NONVIS-across=THITHER
        'Take the one over there.'   [T14]

(71)   *Dif dadin   **nog(a)-u-ba**.*
        I   1SGPOS   REL=NONVIS-across
        'I mine is (the one) which is over there.'   [D]

10.1.8.1 Headless RCs as thematic elements

The thematic marker *erá* 'THM' follows the constituent which the speaker wishes to indicate as a thematic element. When a headless RC functions as the subject of a verbal clause, as in (72), a constituent of a frame, as in (73), or the subject/topic of non-verbal clause, as in (74), it may be marked by the thematic marker *erá*. Headless RCs functioning as object arguments may not be marked as thematic elements.

(72)   [***Noga   m-ok-era***]   ***erá***   *edem ofon   mohena jig meres(a)   efca...*
        REL   NR-sib.s.s.-old.   THM   hide 3SGPOS wife   LOC sugarcane group
        '[The one] who was the older sibling hid his wife in the sugarcane stand..'[T23]

(73)   [***Noga   decir***]   ***erá,***   *ofa   eyta   merga orokec   fen...*
        REL   correct THM s/he   take   wood   large   from
        '[As for] the thing that is correct, he takes the large branch from ...'   [T29]

(74)   [***Noga   buwun***] ***erá***   *susuy*   *fen*   [*noga dadin*].
        REL   2SGPOS THM other.kind   from   REL 1SGPOS
        'The one which is yours is a different kind than the one which is mine.' [D]

When a headless RC functions as a nominal predicate, it may be marked for contrastive focus by the deictic focus marker *e-* 'FOC' prefixed to the relativizer *noga*, as in (75), (76) and (77).

(75)   *Ofa*   [***e-noga***   *en-ec*   *ebreg*].
        s/he   FOC-REL   DUR-become   leader
        'He was [the very one] who was becoming the leader.'   [TT]

(76)   *Nef-a*   [***e-noga***   *buwun*]*?*
        which-PGE FOC-REL   2SGPOS
        'Which is [the very one] which is yours?'   [D]

(77)   *Ida*   [***e-noga***   *en-et*   *merga*   *owos*   *noga en-ah*   *jig*   *meyja*]*?*
        who   FOC-REL   DUR-eat wood   produce REL   DUR-lie LOC   table
        'Who is [the very one] who is eating the tree fruit which is on the table.' [D]

10.1.9 Non-restrictive RCs

Non-restrictive RCs are parenthetical assertions, conveying background information, judged to be useful to the hearer (Givón 1990:649). Non-restrictive RCs are distinguished from restrictive RCs, in that, they do not restrict the noun phrase which they comment on, such as the RC *noga ofa ecira rot mes* 'who he traveled with his dogs' in (78) does not restrict or narrow the reference to *ergen mahina* 'their husband', or the RC *noga ogos* in (79), which does not narrow the reference to *buwun mosu* 'your mother'. The non-restrictive RC *owoka Ngati* 'his name was Ngati' in (80) is a parenthetical comment, as the name of the worker is incidental to the action of the narrative.

(78)   *Erogá*   *y-esah*   *rokrok*   *ergen*   *mahina,* [*noga ofa ecira rot   mes*]..
        hence   DU-put   expectantly 3DUPOS husband REL   s/he walk about dog
        'So they placed [put aside the food] in anticipation of their husband, who
        traveled with his dogs ..'   [T24]

(79)   *dif di-oduy   efef   rot   buwun   mosu,*   [*noga ogos*] *no-ma-i*
        I   1SG-front ache about 2SGPOS mother REL   die   DNR-far-GIV
        'I loved your mother, who died'   [T25]

(80)   *Edá, tukang   erg-em   fen   Wamena,* [*owoka Ngati*]*, en....*
        then   craftsman   NUM:1-CST from   Wamena   name   Ngati   come
        'Then another worker from Wamena, (who) his name was Ngati, came...' [T22]

10.2 Complement clauses

A clause or sentence which functions as an argument of another clause is a complement clause (Noonan 1985:42, T. Payne 1997:313), which in Moskona may be only an object argument. Those predicates, whether simple verbs or complex predicates, which allow their object argument to be a clause are complement-taking predicates (CTPs). Generally, CTPs may be categorized semantically (cf. Givón 1984:117) as simple verbs of utterance, cognition or emotional/mental states, and perception or manipulation.

This section describes the two types of complementation structures found in Moskona, finite complement clauses and paratactic complements. Section 10.2.1 will deal with the finite complements, characterized by a complementizer, either *ohot* 'say' or *rot* 'about', along with the CTPs which take each type of complement. Section 10.2.2 will present the paratactic complement constructions, characterized by a lack of complementizer, along with the two types of CTPs which take these complements. Finally, the scope of negation will be discussed as it applies to both types of complementation in §10.2.3.

10.2.1 Finite complements

Finite complements have the same structure as independent clauses, that is, the predicate in the complement governs a set of grammatical relations which are independent of those governed by the matrix predicate. A (pro)nominal subject may be expressed explicitly and need not be co-referential with the subject of the matrix clause, such as the finite complement *mafif emed mod nomi rot eri* in (81) has a subject NP *mafif* 'wind' which is expressed directly, and is not co-referential with *eri*, the subject of the matrix clause. Predicates in finite complement clauses may be independently inflected for aspect and mode, such as the complement verb *ed* 'strike' in (81) is independently marked for mode by *em-* 'IRR' or the complement verb *ebah* 'live' is independently marked for aspect by *en-* 'DUR' in (82). (Complement clauses are in brackets.)

(81)   *eri   i-emesa rot   [mafif em-ed   mod   no-ma-i   rot   eri]*
        they.PL   3PL-fear about   wind   IRR-strike   house   DNR-far-GIV   about   they.PL
        'they feared that the wind would strike the house with them' (mental state) [T3]

(82)   *Eriefiosga,   ofa ohot,   [Dif   erá   di-en-ebah=kef].*
        Eriefiosga   s/he say   I   THM   1SG-DUR-live=here
        'Eriefiosga, she said, "I am here."' (direct quote:speech)   [T25]

10.2.1.1 Complements marked with *ohot*

The complementizer *ohot* 'say', which introduces direct and indirect quote complements, is a grammaticalized form of the extant utterance verb *ohot* 'say', for which inflectional morphology has been lost in its transition to the grammatical unit QUOTE MARKER. Bird's Head languages Meyah (Gravelle 2004:283), Hatam (Reesink 1999:105), Mpur (Odé 20002:58) and Maybrat (Dol 1999:222) also have a verbal complementizer meaning 'say', which introduces both direct and indirect quotes, as do many other languages, whether Papuan or other types (Schachter 1985:50).

The CTPs which take *ohot*-complements are typically utterance predicates, such as the utterance verbs *ohot* 'say' and *odu* 'tell', but also include manner of speaking verbs, such as *egerna* 'hail', *ejeka* 'call (out)', *ohur* 'deceive'/'mislead', *oyom* 'request', *osot* '(re)count', *obder* 'curse (at)', and *oyok* 'swear (about)'.

Indirect and direct quote complements are sometimes not easy to distinguish, but may be differentiated by their pronouns and the presence of a pause preceding direct quote complements. Use of a pause is, cross-linguistically, a widespread and iconic means of separating the matrix clause and quote complement (Givón 1990:553). Direct quote complements maintain the deictic center of the original speech act (Dik 1997b:96), such as the second person singular pronominal reference *bua* 'you.SG' in (83). Indirect quote complements adjust pronominal references to adapt to the deictic center of the speaker, as in (84) in which the pronominal reference has shifted from second person singular address to third person singular *ofa* 's/he'.

(83)   *Ergog   y-odu   gug ofa* **ohot***,* [*Bua   bi-en   bi-ah   osuj   y-egak*]
        they.DU DU-tell to s/he say   you.SG 2SG-come 2SG-lie upon   DU-leg
        'They (two) told him, "Come lie on top of our legs."' (direct quote:speech)
                                                                          [T23]

(84)   *Ofa odu gug ofon   efer   **ohot*** [*ofa en   jig mod, esha m-ofog*
        s/he tell to 3SGPOS child   say   s/he come LOC house from NR-pile

        ahta   jog].
        black already
        'She told her child that he (should) come in the house, because it was already dark.' (indirect quote)   [D]

10.2.1.1.1 Direct quote complements

Direct quote complements range from short interjections or phrases, such as the direct quote *Ayok, néesa* in (85), to multi-paragraph discourses. They may include declaratives (86), imperatives (87) or interrogatives (88), because they form mini-discourses.

(85)   *Ergog   y-ohot   gug mogen   ohot,* [*Ayok,   néesa*].
        they.DU DU-say   to mother.in.law say   mother   not.yet
        'They said to (their) mother-in-law, "Mother, not yet."' (direct quote:speech)
                                                                        [T23]

(86)   *Edá   Ijisir   ohur   **ohot**,* [*Menejog edá,   bi-owra   jig   moroj*
        then   Ijisir   deceive say   tomorrow then   2SG-cross.through LOC   path

        no-ka-i].
        DNR-near-GIV
        'So Ijisir misled (him), "Tomorrow, then you (can) walk on this path."' (direct
        quote:speech)   [T6]

(87)   *Dif di-ohot,* [*Bua   m-engit   mar   no-ma-i   edak*].
        I   1SG-say   you.SG IRR-make thing DNR-far-GIV   NEG.DEON
        'I said, "Don't make that!"' (direct quote:speech)   [D]

(88)   *ofa ejeka gug y-efer   no-ma-i   **ohot**,* [*Moroj noga yoga   y-ewer*
        s/he call to DU-child DNR-far-GIV   say   path   REL   you.DU DU-pass

        jig   erá   ah hadefa]*?*
        LOC   THM   lie where
        'he called to those (two) guys, "The path which you passed on, where is it?"'
        (direct quote:speech)   [T23]

Direct quote complements are utilized in speech events, as in the preceding examples, but also in thought or "inner speech", as in (89).

(89)   *y-eferiok   no-ma-i   y-orusoht(a) jig y-oduy ewes **ohot**,* [*Ejena*
        DU-sm.child DNR-far-GIV   DU-think   LOC DU-front cavity say   woman

        noga momha en no-ma-i,   ofa ogow yefgen mosu   jog-a.]
        REL   insanity do DNR-far-GIV   s/he chop 1DUPOS mother already-PGE
        'Those youngsters thought in their fronts (hearts), "The crazy woman, she killed
        our mother.' (direct quote:thought)   [T23]

A few idiomatic expressions denoting utterance may function as CTPs, such as *om eteyj* (enclose eye) 'pray' in (90) takes the direct quote complement *Allah dijeka estom gug bua*.

(90)   *Ofa om   eteyja **ohot**,* [*Ara,   dif di-ejeka   estom   gug bua*].
        s/he enclose eye   say   God,   I   1SG-call   thanks to you.SG
        'He prayed, "God, I call out thanks to you."' (direct quote:speech)   [TT]

The complementizer *ohot* may be omitted in direct quote complements, as the deictic orientation of the pronouns and a pause preceding the direct quote signal the change in deictic center. The pronominal reference of the original speech event is retained, such as first person singular pronoun *dif* 'I' in (91), and second person singular pronoun *bua* 'you.SG' in (92). Pause is indicated by " / ".

(91)   *Dif di-ohot,* **/** [*Estom   rot   mar   noga bua   bi-eyta gug dif*].
       I   1SG-say   thanks about thing REL   you.SG 2SG-take to   I
       'I said, "Thanks for the thing you gave me."' (direct quote:speech)   [D]

(92)   *Ofa ejeka jug   Eriefiosga,* **/** [*Bua   bi-en   bi-ah   ni   di-oduy*].
       s/he call   against Eriefiosga   you.SG 2SG-come 2SG-lie at   1SG-front
       'She summoned Eriefiosga, "Come lie on at my front."' (direct quote:speech)
                                                                                    [T25]

The complementizer *ohot* typically occurs immediately preceding a direct quote complement but may be optionally followed by a demonstrative, such as *–ka* (near) 'this' in (93), which functions as a focusing device for the quote complement.

(93)   *Ofa   ohur   **ohot**   e-ka-i,*   [*Bua   sota   bi-eyja.*]
       s/he   deceive say   FOC-near-GIV   you.SG later 2SG-go
       'He lied saying this, "Later, you (can) go."' (direct quote:speech)   [T6]

10.2.1.1.2 Indirect quote complements

Indirect quotes may be distinguished from direct quotes in that the complementizer *ohot* may not be omitted in indirect quote complements, nor is there a pause preceding an indirect quote complement. Indirect quote complements usually adjust the deictic center to that of the speaker, such that third person rather than first or second person reference is typically used. In (94), the subject pronoun of the indirect quote is *ofa* 's/he', a third person singular reference, rather than *dif* 'I', first person singular. In (95) the subject pronoun of the indirect quote is *ofa* 's/he' rather than *bua* 'you.SG' second person singular.

(94)   *Ara   egen   gug Abraham **ohot** [*ofa   em-eyta mow   no-mis-i*
       God   promise to   Abraham say   s/he   IRR-take land   DNR-former-GIV

       romreg gug   ofa]
       all   to   s/he
       'God promised to Abraham that he would give all those places to him.' (indirect quote)   [TT]

(95)   *Osnok erg-em   eweswa mar ni ofa **ohot** [ofa   no-ma-i   em-en*
        person NUM:1-CST prove   thing for s/he say   s/he DNR-far-GIV   IRR-do

        mar   no-ma-i   éra].
        thing DNR-far-GIV NEG
        'Another person gave proof for him that he didn't do that.' (indirect quote) [D]

The subject NP of an indirect quote complement clause may be omitted if it is co-referential with the subject of the matrix clause, as in (96), where the subject *eri* has been omitted in the indirect quote.

(96)   *Eri   i-ostah   **ohot** [i-em-eyta   mar no-ma-i   éra*].
        they.PL 3PL-deny   say   3PL-IRR-take thing DNR-far-GIV   NEG
        'They denied that they did it.' (indirect quote)   [D]

Indirect quote complements may also be indirect (embedded) questions. Indirect polar-questions are marked clause-finally with the polar question enclitic *–ey* 'Q', such as the indirect question in brackets in (97). Indirect information-question complements contain a question word (§4.4), such as *hádefa* 'where' in (98). These complements correspond to an 'if/whether' interpretation, indicating conditionality or hypotheticality.

(97)   *ergog   y-esisga jug   ohot [ergen mahina   erá y-ewer jig*
        they.DU DU-ask against say   3DUPOS husband   THM DU-pass LOC

        *no-kef=**ey?***]
        DNR-here=Q
        'they questioned (them), whether/if their husband had passed here.' (indirect quote:polar-question)   [T10]

(98)   *odu ohot [y-efer   y-erg-ak   no-ma-i   erá y-eyja **hádefa***].
        tell say   DU-child DU-NUM:1-two DNR-far-GIV   THM DU-go   where
        '(it) told that the two kids where they went.' (indirect quote:information-question)   [T23]

10.2.1.2 Complements marked with *rot*

The preposition *rot* 'about' is the probable origin of the complementizer *rot,* a source which is not uncommon cross-linguistically (Dik 1997b:136, Hopper & Traugott 1993:181, Noonan 1985:47), as the preposition *rot* encodes goal for nominal complements.

10.2.1.2.1 Cognition and mental event CTPs

The CTPs which are predicates of cognition and mental/emotional events take *rot*-complements. They may be simple verbs, such as *edif* 'guess', *ejgen* 'know' (99), *orusohta* 'think' (100) and *emesa* 'fear' (101).

(99)   *ofa em-ejgen* ***rot***   [*em-et   mars(a) ebah éra*]
        s/he IRR-know about IRR-eat game   raw   NEG
        'He didn't know not to eat game raw'   [T9]

(100)   *Bua   bi-orusohta* ***rot*** [*buaha erá   osnok   noga owoka aksa*].
        you.SG 2SG-think   about 2SGRX THM   person REL   name   high
        'You consider yourself [to be] someone whose designation is high (important).'
                                                                                 [D]

(101)   *mif   mi-em-emesa* ***rot*** [*mi-esij   buwun bi-ogá   edak*].
        we.PL 1PL-IRR-fear   about 1PL-talk.about 2SGPOS 2SG-speech NEG.DEON
        'we shouldn't be afraid to discuss your words (message).'   [TT]

When the subject NP of a *rot*-complement is co-referent with the subject of the matrix predicate, it may be omitted, as is *ofa* 's/he' in (99) and (102) and *mif* in (101).

(102)   *ofa emesa tin* ***rot*** [*ek ofon   efer   noga ot   jig midohes*]
        s/he fear   also about see 3SGPOS child REL   stand LOC doorway
        'she feared also to see her child who stood in the doorway'   [T23]

A number of CTPs denoting emotional/mental states are emotional-state constructions (§9.3.1). These also may take a *rot*-complement. They include constructions, such as *oduy os* 'want' in (103), *oduy enin* 'suspect' in (104), *ogá ojga* 'decide' in (105) and *oduy efifi* '(be) anxious' in (106).

(103)   *Dif di-oduy   os-os*   ***rot*** [*di-em-osotka   eri-ej-a*
        I   1SG-front move.horiz.-RED   about 1SG-IRR-marry   they.PL-female-PGE

        jig   pantai[57]]
        LOC   beach
        'I want that I would marry a coastal woman...'   [T16]

---

[57] The word *pantai* 'beach' is borrowed from Malay.

(104)   *bua   bi-oduy   enin   **rot**   [dif erá   noga di-esir   rot   buwun*
        you.SG 2SG-front measure about I   THM   REL   1SG-fall about 2SGPOS

        mohena].
        wife
        'you suspected that I was the one who committed adultery with your wife.'
                                                                    [D]

(105)   *orna erg-es   esisok ogá   ojga   **rot**   [em-osotka   ofon*
        man   NUM:1-one EXPN speech   originated about IRR-marry   3SGPOS

        osorojga   néesa],
        rib   not.yet
        'a man alone decides that he will not yet marry his fiancée'   [TT]

(106)   *Bua   bi-oduy   efi-fi   **rot**   [bi-ofjig   eri   esebra]*.
        you.SG 2SG-front liquify-RED about 2SG-help they.PL   continuous
        'You were anxious to help them all the time.' (front liquify = anxious) [TT]

10.2.1.2.2 Modality CTPs

Modality predicates, denoting the attitude or intent of the speaker, may take a *rot*-complement. The subject NPs of these complement typically are co-referent with the subject of the CTP, and thus a lexical expression is omitted in the complement. CTPs of modality may be simple verbs, such as *eskijig* 'agree', *eba* 'refuse', *esenek* 'prefer', *odow* '(be) disinclined', as well as *erenin* 'try' (107), *egen* 'promise' (108) and *eyskir* '(be) disinterested (in)' (109).

(107)   *eri-es   i-er-enin   **rot**   [i-ef   marog]*.
        they.PL-male 3PL-CAUS-measure about 3PL-shoot arrow
        'males try to shoot arrows.'   [D]

(108)   *Dif di-egen   **rot**   [di-em-engit   ni   bua   se]*.
        I   1SG-promise about 1SG-IRR-make for you.SG certain
        'I promised that I would certainly do (it) for you.'   [D]

(109)   *eri   i-eysker   **rot**   [i-ofjig eri n   ebreg]*
        they.PL 3PL-disinterested about 3PL-help 3PLPOS leader
        'they are not interested to help their leader'   [TT]

Complements introduced by *rot* may also be indirect polar-questions, such as the complement in (110) marked with –*ey* 'Q', or they may be indirect information-questions containing a question-word, such as *ida* 'who' in (111).

(110)   *ofa ejgen **rot*** [*orna erg-es   odos rot   ofa=ey*].
     s/he know about man   NUM:1-one   meet about s/he=Q
     'he knew whether/if a man (had) met with her.' (polar-question complement)
<div align="right">[D]</div>

(111)   *Ofa   enin   y-osnok   y-erg-ak   no-ma-i   ni ejgen **rot*** [*ida*
     s/he   measure DU-person   NUM:1-two   DNR-far-GIV for know about who

     noga aksa ekris].
     REL   tall   exceed
     'he measured those two people in order to know who was tallest.' (information-question complement)
<div align="right">[D]</div>

Verbs may have more than one distinct sense, and thus may belong to more than one class (Givón 1984:125). An utterance verb, such as *esisga* 'ask' in (112), may take a *rot*-complement if the complement is a non-speech event, that is, not a quote.

(112)   *Dif di-esisga bua   **rot*** [*buwun   mekew erá   ebah hádefa*].
     I   1SG-ask   you.SG about 2SGPOS   father THM   live   where
     'I asked you where your father lived.' (information-question complement) [D]

10.2.1.3 Complements marked with *rot ohot*

The simple verbs which take *rot*-complements are quite possibly the remnants of emotional-state constructions (§9.3.1) in which the nominal constituent has been elided, leaving the verbal constituent to carry the entire semantic notion. The preposition *rot,* being integral for any complement of the construction whether nominal or clausal, is required as complementizer for these predicates to take an indirect quote complement. Thus, both *rot* and *ohot* mark the indirect quote complements of cognition (113), mental event (114) and modality (115) complement-taking predicates.

(113)   *Dif di-oduy   ejgen **rot**   **ohot*** [*mow no-kef   erá   oyf-omof ni*
     I   1SG-front know about say   land DNR-here   THM   good-RED for

     i-or   mod jig].
     3PL-build house LOC
     'It is my opinion that this place is good to build a house in.' (indirect quote) [D]

(114)   *I-osnok   enia   i-orusohta   **rot   ohot**   [*ofa   ofon   miyefen*
         3PL-person some.other   3PL-think   about say   s/he   3SGPOS money

         eseter].
         much.more
         'Some other people thought that he had a lot of money.' (indirect quote)
                                                                                   [D]

(115)   *(ofa) orokecic   **rot   ohot**   [*ofa   em-eskijig   néesa*].
         s/he   point.out   about say   s/he   IRR-agree   not.yet
         'he indicated that he didn't yet agree.' (indirect quote)   [T23]

Like indirect quotes of utterance verbs, indirect quote complements of non-utterance
verbs do not allow the omission of subject NPs. The pronoun subjects *ofa* 's/he' in (116)
and *dif* 'I' in (117), are not omitted even though they are co-referent with the subject of
the matrix predicate.

(116)   ***Ofa**   odu ofoj   rot   ohot   [**ofa** em-en   somus   se*].
         s/he   tell pre-set   about say   s/he   IRR-come   back   certain
         'He pledged that he would certainly come back.' (indirect quote)   [D]

(117)   *Motah   no-kef,   **dif** di-ogow   ofoj   rot   ohot   [**dif** di-eyja jig*
         morning DNR-here   I   1SG-chop pre-set   about say   I   1SG-go   LOC

         pasar], *tinagurá*.
         market   but.no
         'This morning, I planned to go to the market, but didn't.' (indirect quote) [D]

10.2.2 Paratactic complement constructions

Paratactic complement constructions have no formal subordinator to introduce them and
are rather rare across languages (Dik 1997b:135). The East Bird's Head languages, Sougb
(Reesink 2002b:253) and Meyah (Gravelle 2004:290), also evidence paratactic
complement constructions with some immediate perception and manipulation verbs. The
subject NP of the complement clause is highly constrained, as it must be co-referent with
the object of the matrix clause and is unexpressed lexically, being coded only as a
pronominal prefix on the verb.

Paratactic complement constructions have some structural overlap with core-layer serial
verb constructions (cf. Noonan 1985:55). Both constructions have a monoclausal
interpretation, as there is no pause following the main verb, and the object argument of
the main verb is co-referent with the subject of the minor verb. They may be
distinguished by their internal structure, as the structure of a SVC is S V O=S V (O), (i.e. a

fused argument structure), whereas the internal structure of a paratactic complement construction is S V O V (O), with the subject NP of the complement unexpressed. SVCs express a single event, whereas a paratactic complement adds a separate proposition to the matrix clause. The type of main predicate usually makes clear which construction is occurring, although some verbs, such as *oduk* 'order' in (118), may occur in both SVC and paratactic complement constructions.

(118)   *Eri-i-orna*   **i-oduk**   *mif-e   mi-ec   merej-a,*
        they.PL-3PL-man   3PL-order   we-PGE   1PL-become   avenger-PGE
        'Men ordered us, (we) became avengers.' or
        'Men ordered us [so] we became avengers'   [T17]

10.2.2.1 Immediate perception CTPs

CTPs which denote immediate (or direct) perception take paratactic complements. These CTPs are simple verbs, such as *ek* 'see' (119) and *eg* 'hear' (120), but also include verbs such as *eyeg* 'look', *eyeg-ejga* 'watch' (121), *ohobta* 'stare at' and *ogok* 'find' (122). In (119), the subject of the paratactic complement *yua* is coded only as the prefix *yi-* '2PL' on the verb *ok* 'bear'.

(119)   *Yef   y-ek   yua   no-mis-i   [yi-ok   mayna   efena]*
        we.DU   DU-see   you.PL   DNR-far-GIV   2PL-bear   loincloth   new
        'We saw you, (you) wore new loincloths.'
        'I saw you wore new loincloths.'   [T25]

(120)   *Yahyah   eg   eri   [i-odu   mar   no-mis-i]*
        Yahyah   hear   they.PL   3PL-tell   thing   DNR-former-GIV
        'Yahyah heard them, (they) told that thing.'
        'Yahyah heard them tell that thing.'   [D]

(121)   *Dif di-eyeg-ejga   efer   no-mis-i   [ahada   mar   noga   eyet*
        I   1SG-look-graze   child   DNR-former-GIV   dismantle   thing   REL   stuck

        jug   kertas   efi]
        against   paper   leaf
        'I watched that kid, (he) opened the thing which stuck shut the pages.'
        'I watched the kid open the thing which stuck the pages shut.'   [TT]

(122)   *Dif di-ogok   mitow   no-ma-i   [orgebi jig mohtef   ewet].*
        I   1SG-find   machete   DNR-far-GIV   sunken   LOC mud   semi.solid
        'I discovered the machete, (it) was sunken in the thick mud.'
        'I discovered the machete sunken into the thick mud.'   [D]

CTPs which denote immediate perception or mental perception, such as *ek* 'see' in (123), may take a paratactic indirect polar-question complement marked with *–ey* 'Q' or an indirect information-question complement, with a question word, such as *tínefa* 'how' in (124) or the phrasal *rot tínefa* 'why' in (125).

(123)   *Dif   di-em-ek   eri   [erin   mar   noga   dif   di-oduy*
       I   1SG-IRR-see   they.PL   3PLPOS   thing   REL   I   1SG-front

       os-os   *rot=**ey**.*]
       move.horiz.-RED   about=Q
       'I will see them, do (they) have the thing that I want?'
       'I will see whether/if they have what I want.'   [D]

(124)   *Ofa eyeg-ejga **tínefa**   i-osnok   meren   [i-ekej   erin   miyefen jig*
       s/he look-graze   how   3PL-person many   3PL-divide 3PLPOS   money   LOC

       miyet   no-ma-i].
       cloth   DNR-far-GIV

       'He watched, how did the many people divide their money in the cloth?'
       'He watched how many people divided their money in(to) the cloth.'   [TT]

(125)   *Ofa ek   jug   efer   no-ma-i   [esirn(a)**rot**   **tínefa**].*
       s/he see   against   child   DNR-far-GIV   sick   about   how
       'He examined the child, (he) was sick how?'
       'He examined why the child was sick.'   [T29]

A perception verb, such as *eg* 'hear', may take a finite complement when the complement does not express immediate perception, such as the speech event in (126) introduced by the complementizer *ohot*.

(126)   *Eri   i-**eg**   ohot   [i-osnok   enia   i-ogos]*
       they.PL   3PL-hear   say   3PL-person some.other   3PL-die
       'They heard that some other people died' (indirect quote)   [D]

10.2.2.2 Manipulative CTPs

Manipulative predicates denote the manipulation of one agent, usually animate, by another (cf. Givón 1990:518). The paratactic complement of the manipulative predicate encodes the desired event which the agent of the matrix clause tries to bring about. CTPs denoting manipulation may be verbs such as *oduk* 'order' in (127), *orukres* 'encourage' in (128) or *esiwkjig* 'allow' in (129).

(127)   *Ofa **oduk** ofon   buasir=mis-i*   [*i-en   i-ot   kuk   modeg*].
        s/he order 3SGPOS companion=former-GIV 3PL-come 3PL-stand along yard
        'He ordered those buddies of his, (they) came and hide in ambush.'
        'He ordered his buddies to come and hide in ambush.'
        (stand along yard = hide in ambush)   [T18]

(128)   *Bua   m-**orukres** i-eferiok   no-ma-i*   [*i-ecira jig mowah*
        you.SG IRR-encourage 3PL-sm.child DNR-far-GIV   3PL-walk LOC outside

        tas]   *edak.*
        again NEG.DEON
        'Don't encourage the small children, (they) walk in the forest again.'
        'Don't encourage the small children to walk in the forest again.'   [D]

(129)   *Ofa   **esiwkjig** ofon   efer   esisok* [*ecira jig   mowah*].
        s/he   allow   3SGPOS child EXPN   walk LOC   outside
        'She allowed her child alone, (he) walks in the forest.'
        'She allowed her child alone to walk in the forest.'   [D]

A paratactic complement can be both the argument of one clause and at the same time have a third clause as its object argument, such as the perception verb *ek* 'see' in (130) is both the matrix and the embedded predicate.

(130)   *ofa   esia   rot*   **[***ek* [*mogos em-ogos   éra*]]
        s/he   surprised about see snake IRR-die   NEG
        'he was surprised to see the snake wasn't dead.' (mental state and perception)
                                                                             [T29]

10.2.3 Scope of negation in complementation constructions

Finite complements may be independently negated, such as the verb *ejgen,* marked by *em-* 'IRR' in (131), is negated in the finite complement *Dif dimejgen éra*.

(131)   *ofa odu gug ofon   ayok   ohot,* [*Dif di-em-ejgen   éra.*]
        s/he tell to 3SGPOS mother say   I   1SG-IRR-know NEG
        'he told his mother, "I don't know."' (direct quote)   [T7]

When a matrix clause is negated, the negative adverb cannot occur between a matrix predicate and its complement, rather it must occur in sentence or matrix-clause final position. The scope of the negative adverb is unambiguous as it extends only to those verbs marked by *em-* 'IRR'. In (132), the matrix verb *ejgen* 'know' which is marked by *em-*, is negated by the negative adverb *éra* 'NEG', which follows the complement clause *mona noga ofoj enéysaha etkebra*.

(132)   *yua   yi-**em**-ejgen   rot   [mona   noga   ofoj   en-éysaha   etkebra] **éra**.
you.PL   2PL-IRR-know   about   day   REL   pre-set   DUR-reach   short   NEG
'You (all) don't know that the season is arriving shortly.'   [D]

In paratactic complement constructions, negative adverbs may occur only sentence-finally. For example, the negative adverbs *edak* 'NEG.DEON', negating the matrix verb *egedid* in (133), and *néesa* 'not yet', negating the complement verb *oku* in (134), follow the paratactic complement. The scope of the negation extends to only those verbs marked with *em-* 'IRR'.

(133)   *Yua   yi-**em**-er-egedid   i-eferiok   no-ma-i   [i-en   skod*
you.PL   2PL-IRR-CAUS-obstruct   3PL-sm.child   DNR-far-GIV   3PL-come   to

dif] **edak**.
I   NEG.DEON
'Don't hinder the little children, (they) come to me.'
'Don't hinder the little children to come to me.'   [TT]

(134)   *Dif   di-ek   eri   [i-**em**-oku   merah   **néesa**]*.
I   1SG-see   they.PL   3PL-IRR-burn   fire   not.yet
'I saw them, (they) hadn't started a fire yet.'
'I saw they hadn't started a fire yet.'   [T14]

Chapter 11
Clause combining

11.0 Introduction

Clauses may be combined to form sentences which are composed of functionally equivalent clauses (Dik 1997b:189), that is conjoined constructions, or they may be composed of a main clause and a subordinate clause. As a clause conjoining language, Moskona primarily utilizes overt linking devices to conjoin clauses and signal subordinate clauses. A secondary, more limited strategy utilizes juxtaposition.

The presentation of how clauses may be combined will be organized by first a brief discussion of clauses which are linked without an overt linker (§11.1), followed by a survey of the explicit clause-linking devices used in clause combinations (§11.2). The coding of the semantic relationship and syntactic function of each clause-linking device will be illustrated by examples, forming the bulk of the chapter. Finally, a discussion of the phrasal units functioning as complex conjunctions linking sentences will be presented (§11.5).

11.1 Clauses linked by juxtaposition

Clauses may be linked through juxtaposition, the relationship between the clauses being inferred. These conjoined clause constructions may be distinguished from serial verb constructions primarily by a pause preceding each clause, as well as each clause having its own intonation contour. Clauses linked through juxtaposition may have the same subject referent, but each predicate has its own object and may be marked for aspect and mood separately. Juxtaposition is employed on a limited basis with predicates of the same syntactic level, typically indicating a list of events or states which may have a vague simultaneous relationship, as in (1), a listing of events illustrative of "the old days", and in (2) a listing of events demonstrating the "modernity" of the speaker. Noun phrases linked paratactically (§6.4) also have been observed to have a similar relation, that is, noun phrases may also occur juxtaposed when listed. A slight pause following the first clause is indicated in written text by a comma.

(1)   *eri*   ***i****-ahac,*   ***i****-ed*   *mosta,* ***i****-em-eyta* *i-efer,*   ***i****-ejij*
        they.PL 3PL-tie.up 3PL-strike victim 3PL-IRR-take 3PL-child 3PL-take.hostage

        mek, ***i****-et*   *mofta (efi)*
        pig   3PL-eat palm liquid
        'they tied [enemies] up, struck victims, would kidnap children, confiscate pigs, and drink palm wine'   [T13]

(2)　　*mi-osnok*　　**mi**-*en-ah-miy,*　　**mi**-*en-ot*　　*jig*　　*miyes*　　**mi**-*er*　　*tofì..*
　　　　1PL-person　1PL-DUR-bathe　1PL-DUR-stand　LOC　clothes　1PL-wear　hat
　　　　'we people bathe, wear clothes, wear hats..' (stand in clothes = wear clothes)

[T14]

Clause combinations linked by juxtaposition also may involve two clauses with the same verb, the second clause expanding meaning by giving additional information. In (3) the verb *esed* 'grab' is repeated in the second clause and the object argument *ofa* 's/he' is expanded by the addition of modifiers *erges* 'one' and *nomi* 'that', signaling the participant is new and thematic. In (4), the verb *eyha* 'pay' is repeated in the second clause and the information *or miy, mek* 'with cloth, pigs' is added.

(3)　　*Edá*　*mif*　*mi-esed ofa,*　*mi-esed*　*ofa erg-es*　　*no-ma-i.*
　　　　then　we.PL　1PL-grab s/he　1PL-grab　s/he NUM:1-one　DNR-far-GIV
　　　　'Then, we grabbed him, grabbed him'　　　　　　　　[T17]

(4)　　*Edá,*　*ofa em-eyha*　*mif-a*　　*mi-ofoms(a),*　　*or*　　*miy,*　*mek,*　*er-eyh(a)*
　　　　then　s/he IRR-pay　we.PL-PGE 1PL-wage　　　hold　cloth　pig　CAUS-pay

　　　　mif　　*mi-ofomsa*　*no-ma-i*
　　　　we.PL　1PL-wage　DNR-far-GIV
　　　　'then, he would pay us our wages, paid us our wages with cloth, pigs.'　[T17]

Sentences composed of clauses in which there is no overt linking device may have a temporal relationship expressed through a clause-final adverb, which typically occurs in the first clause of the sentence. The clause-final adverb *roga* 'first', as in examples (5-7), indicates a temporal relation of immediate precedence across the clauses. The adverb modifies the predicate of the first clause, but also points to the clause which follows.

(5)　　*Dif di-owha*　*esha ofa* **roga***,*　*ofa*　　*em-et*　　*mar.*
　　　　I　1SG-leave　from s/he first　s/he　IRR-eat　thing
　　　　'After I leave him, he will eat.'　　　　　　　　[D]

(6)　　*edá*　*(eri)*　*i-ofjig*　*eri-orna*　　*i-en*　　*maekena* **roga***,*　*erogá i-em-ah.*
　　　　then　they　3PL-help　they.PL-man　3PL-do　garden　　first　hence 3PL-IRR-lie
　　　　'then after they help the men work in the gardens, so (then) they would sleep.'

[T11]

(7)   *mafif em-ed   mod no-ma-i   rot   eri   **roga**, mod em-esim*
        wind IRR-strike house DNR-far-GIV about they.PL first   house IRR-fall.over

        rot   eri.
        about   they.PL
        'after the wind would strike the house with them, the house would fall over with
        them (in it).'   [T3]

The verbal preposition *esha* 'from' functioning as a temporal verb in a SVC (§9.1.2.7.2)
also expresses the concept 'after(wards)' and may be used to relate the two clauses
temporally, as in (8) and (9).

(8)   *Bua   bi-ewer   osuj   miy   odog   no-ma-i   **esha**, yef-a*
        you.SG 2SG-pass   upon   water   belly   DNR-far-GIV from   we.DU-PGE

        y-ewer   jig   no-ma-i.
        DU-pass   LOC   DNR-far-GIV
        'After you crossed over the river, we crossed there.'   [T23]

(9)   *ofa oduk ekok ni ok   mergej   **esha**, ofa   erá   okui   mitow*
        s/he order father for bear   firewood   from   s/he   THM   pull   machete

        efeyu   fen   ebr(a)-(ef)ej
        immature   from   head-hair
        'after he sent (his) father to bring firewood, he pulled out a knife from his hair.'
                                                                                           [T27]

11.2 Clauses linked by a linking element

The primary clause-combining strategy in Moskona involves explicit linking elements
which have their sources in three categories: prepositions, verbal prepositions and
conjunctions. Subordinate clauses are introduced by prepositions and verbal prepositions.
Coordinate clauses, or clauses which have equal status, are linked by conjunctions. Table
11.1 summarizes these linking elements and their functional glosses.

Table 11.1 Elements linking clauses

Prepositions		Verbal Prepositions		Conjunctions	
jida	'until'	*okuk*	'like', 'as'	*dokun*	'and'
ni	'to', for'	*oromn jen*	'according to'	*erogá*	'so then'
jug	'lest'			*edá*	'then'
daka	'lest'	*orosunun*	'up to (limit)'	*tiná*	'but'
sof	'instead'			*eke*	'ENUM'
jig	'at'	*esha*	'because'	*éra*	'DSJ'

In SVO languages, the linking element tends to be clause-initial, forming a structural unit with the construction which it precedes, and signaling a transition to that clause (Schachter 1985:47, Reesink 2004:1206). These linking elements are invariably found in a fixed position between the clauses which they link, being incorporated into the intonation contour of the clause which they precede.

Some of the same prepositions which encode peripheral arguments (§7.0) may introduce clauses, which act like nominals, taking the position of a noun phrase. Those clauses which lack a pause preceding the preposition fall under a single intonation contour together with the main clause, as they have a more closely integrated structure. Those clauses which have a pause preceding the preposition fall under a separate intonation contour than the clause which precedes it.

Verbal prepositions are true verbs which may function as the main predicate of a verbal clause, such as the verbal preposition *esha* '(away) from', extended to mean 'remove' in (10). In a complex predicate (§9.2), verbal prepositions function as minor verbs with preposition-like functions, that is, they encode the semantic role of a peripheral argument, such as *esha* 'from' introduces *isnok* 'people' in (11).

(10)   *Bua   bi-esha   jida   ekir.*
         you.SG 2SG-from   until   empty
         'Remove (them) until (they) are gone.'   [D]

(11)   *ahada   midohes   esha   i-osnok*
         dismantle doorway   from   3PL-person
         '(he) dismantled the doorway from the people' (opened the door)   [T25]

In addition to taking nominal objects, some verbal prepositions may also take clausal objects, which take the same position as nominals. These constructions containing a clausal object differ from SVCs, in that SVCs have no markers of coordination or subordination, whereas verbal prepositions function as the subordinating element in the construction. Serial verb constructions share arguments, but those clauses governed by

verbal prepositions do not share arguments with the main clause, nor do they necessarily share aspect and mode. SVCs have a monoclausal interpretation by virtue of a lack of pauses between predicates, but clauses introduced by a verbal preposition may be preceded by a pause, and occur under a separate intonation contour.

The following discussion is structured to present the linking elements oriented around a similar function.

11.2.1 Temporal clauses

Temporal clauses add information to the main clause regarding the time of the main clause's event. They may indicate a termination relation, a simultaneous relation or one of temporal overlap.

Termination temporal clauses

The non-spatial preposition *jida* 'until', which introduces temporal peripheral arguments, such as *mesta erges* in (12), may also introduce clauses. Those clauses introduced by *jida* point to the final boundary of the event in the main clause, that is, signaling its termination, such as *ernof* in (13), *bijgen tum* in (14), and *oysamos* in (15). The subject of the temporal clauses in (13-15) is co-referential with the subject of the main clause, but temporal clauses may also have a subject which is not co-referential with an entity referred to in the main clause, such as *ofon efer orokec tum* in (16).

(12)　*i-osok*　　*i-oyka*　　*jig mod no-ma-i*　　***jida***　　*mesta*　　*erg-es*
　　　　3PL-climb.up 3PL-dance　LOC house DNR-far-GIV　until　moon　　NUM:1-one
　　　　(they) went up and danced in that house for a month　　　　　[T21]

(13)　*Eferiok*　　*erg-es*　　*osumiok*　***jida***　*ernof.*
　　　　sm.child　　NUM:1-one　whirl　　until　dizzy
　　　　'A small child whirled around until (he) was dizzy.'　　　　[D]

(14)　*Bua*　　*bi-osot*　　*mar*　*efeyu*　　*no-ma-i*　　***jida***　*bi-ejgen*　*tum.*
　　　　you.SG　2SG-read　thing　patterned　DNR-far-GIV　until　2SG-know onto
　　　　'Read the writing until you learn it.'　　　　　　[D]

(15)　*Ergog*　*y-et*　　*morgik ec*　　　　*m-ejg(a)-im(a)*　***jida***　*oysa-mos.*
　　　　they.DU　DU-eat　matoa　press.on　RECIP-graze　　until　finish-RED
　　　　'They ate the matoa one after another until (they) were all gone.'　　[D]

(16)　*Ergog*　*y-eker jig memeg(a) no-ma-i*　　***jida***　*ofon*　　*efer*　*orokec*　*tum.*
　　　　they.DU　DU-sit LOC mountain　DNR-far-GIV　until　3SGPOS　child　large　　onto
　　　　'they (two) stayed on the mountain until her child was fully grown.'　[T27]

The verbal preposition *orosunun*, a fused form most likely composed of the verbs *os* 'move horizontally (over)' and *enin* 'measure', may be glossed '(up) to limit' or 'as far as'. It functions prepositionally to code temporal peripheral arguments, as in (17), or locative peripheral arguments, as in (18), and may also link clauses. (Only temporal clauses are attested; no locative clauses have been observed.) The clause *dugos* 'I died' in (19), introduced by the verbal preposition *orosunun* '(up to) limit', points toward the termination of the event of the main clause.

(17)   *Mif   mi-ebe-skor   **er-osunun**   Mona Ciyja gijga.*
        we.PL 1PL-LOAN-study CAUS-limit   day   five   only
        'We studied only up to Friday'   [D]

(18)   *Ofa   ef   mereda **er-osunun**   ofof   noga amok(a) ofon.*
        s/he   in.turns brush CAUS-limit   borderREL   friend   3SGPOS
        'She cut brush up to the boundary which was her friend's.'   [D]

(19)   *Dif di-oduy   ok-ok   eseter   **er-osunun**   di-ogos.*
        I   2SG-front flee-RED much.more CAUS-limit   1SG-die
        'I was so nervous I almost died!' (lit. up to I died) (front flee = nervous)
                                                                              [D]

Simultaneous clauses

There are two types of temporal clauses which differ from other adverbial-type clauses introduced by prepositions, in that they are structurally parallel to relative clauses, being composed of a noun or nominal-like head governing a restricting clause preceded by the relativizer *noga*. The structural parallelism between simultaneous temporal clauses and relative clauses is a common feature of Papuan languages (Foley 1986:202).

The generic spatial preposition *jig* 'LOC' may introduce temporal clauses headed by the generic noun *mona* 'day', followed by the relativizer *noga,* which introduces the restricting clause. These clauses express a simultaneous temporal relation. Post-posed simultaneous clauses fall under the same intonation contour as the main clause, and lack a pause preceding the preposition *jig,* as in (20).

(20)   *Ofa owos osuy   rot   **jig** mona noga ofa eg ohot ofon*
        s/he skin   shudder about LOC day   REL   s/he hearsay   3SGPOS

        m-ok-era   erá   ogos   jog.
        NR- sib.s.s.-old.   THM   die   already
        'He was shocked when he heard that his older brother had already died.' [D]

Pre-posed clauses are separated by a pause (indicated by a comma) and have a separate intonation contour, such as *mona noga mas es oysa jog* in (21). The main clause is linked by the conjunction *edá* 'then'.

(21) **Jig** mona noga mas es   oysa   jog,   edá ofa ek maw egak
      LOC day REL rain spray finished already then s/he see sun leg

      ed   meren odog.
      strike lake   belly
      'At the time the rain stopped, then he saw the sun's rays strike the lake's
      surface.'   [T22]

Temporal overlap clauses

Clauses expressing temporal overlap are structurally parallel to relative clauses, in that
they are headed by the adverbial *kus* 'short span (of time)' and a restricting clause
preceded by the relativizer *noga*. The adverbial *kus* occurs in a temporal phrase, such as
kus mot '(at) night' in (22), giving temporal information for the main clause. Post-posed
temporal clauses headed by *kus,* as in (23) and (24), lack a pause preceding the head and
occur under the same intonation contour as the main clause.

(22) **Kus**   mot   erá, mesta ofon   efena enin-ma
      short.span   night THM   moon 3SGPOS spirit light.up-far
      '[At] night, the moon's light illuminates.'   [D]

(23) *Ofa ec miyes* **kus**   noga dif di-éysaha jig Jayapura.
      s/he buy clothes short.span REL I   1SG-reach   LOC Jayapura
      'He bought the clothes [at] the time I arrived in Jayapura.' [D]

(24) *Dif di-ek   motur ognunui ot   jig mebaga* **kus**   noga   mesta
      I   1SG-see star many   stand LOC sky   short.span REL   moon

      em-edma   éra.
      IRR-be.visible NEG
      'I [can] see lots of stars in the sky [during] the time the moon isn't out.' [D]

Pre-posed temporal overlap clauses give background or setting material, such as the
temporal clauses in (25) and (26), and are usually followed by a pause, separating them
from the main clause.

(25) *Edá, eri   tin,* **kus**   noga i-odog,   eri   i-em-en   maekena
      then they.PL also short.span REL 3PL-pregnant they.PL 3PL-IRR-do garden

      etew   éra,
      much.more NEG
      'Then, they also, [during] the time that they were pregnant, they didn't work in
      the garden much'   [T21]

(26)   ***Kus***   *noga   eri   i-ok   efer,   edá   eri   i-ah   jig*
    short.span   REL   they.PL   3PL-bear child   then   they.PL   3PL-lie   LOC

    mod   efeyu..
    house immature
    '[At] the time that they bear a child, then they sleep in a small house...' [T21]

Temporal overlap clauses may be linked to the main clause by the temporal conjunction *edá* 'then', as in (27) and (28).

(27)   ***Kus***   *noga   ofa ek mogos,   **edá**   ofa emesa,   erogá esisif   somus.*
    short.span   REL   s/he see snake   then   s/he fear   hence go.back back
    '[At] the time that he saw the snake, then he was afraid, so (he) backed up.' [T29]

(28)   ***Kus***   *noga   efer   no-ma-i   orna jog,   **edá**   ofon   mosu...*
    short.span   REL   child   DNR-far-GIV   man   already   then   3SGPOS   mother
    '[At] the time that the child was already a man, then his mother....'   [T27]

11.2.2 Location clauses

Location clauses, like simultaneous clauses, are structurally parallel to relative clauses, as they are composed of the generic noun *mow* 'land', which has the extended meaning 'place', governing a restricting clause preceded by the relativizer *noga*. The generic spatial preposition *jig* 'LOC' which governs location phrases, such as *mow erges* in (29), may also introduce a location clause, which takes the same position as a noun phrase. Post-posed location clauses, such as *mow noga eri igen mogum* 'place that they promised each other' in (30), or *mow noga efer en-ebah* 'place that the kid was' in (31), lack a pause preceding the preposition and occur under the same intonation contour as the main clause.

(29)   *eri   i-er-em-ec-ima   **jig**   mow   erg-es*
    they.PL   3PL-CAUS-RECIP-press,on   LOC   land   NUM:1-one
    'they assembled in one place.'   [D]

(30)   *eri   i-er-em-ec-im(a)   **jig**   mow   noga   eri*
    they.PL   3PL-CAUS-RECIP-press.on   LOC   land   REL   they.PL

    i-egen   mogum
    3PL-promise   each.other
    'they assembled at the place that they had promised each other' (cause to press on e.o. = assemble)   [T19]

(31)   *mockej   ofoga dokun   mamom   etew   **jig**   mow   noga*
        raincloud cloud and   overcast.sky much.more   LOC   land   REL

        efer   en-ebah
        child   DUR-live
        'The clouds and overcast skies were a lot at the place where the kid was' [T27]

Location clauses may be pre-posed, but are typically followed by a pause, as in (32).

(32)   ***Jig*** *mow   noga ekok ogok ofon   efer   erá,   kus   no-kef,*
        LOC land   REL   father find   3SGPOS child   THM   short.span DNR-here

        en-ah   no-ma-i   ros.
        DUR-lie   DNR-far-GIV   still
        'At the place where the father found his child, nowadays, (it) is still there.' [T27]

11.2.3 Purpose clauses

The preposition *ni* 'for' which codes purpose/reason peripheral arguments, such as *miy efeyu* in (33), also links clauses signaling purpose. Clauses introduced by *ni* signal the purpose of the agent in the matrix clause or provide a motivation for an event not realized. Typically matrix clauses are active, not stative, as choice or control by the agent of the matrix clause is a required feature (cf. Givón 2001:357).

(33)   *Eri   i-ah   mow   **ni** miy   efeyu.*
        they.PL 3PL-hack   land   for water immature
        'They dug out ground for a pond.'   [T29]

Clauses which have no pause preceding the preposition tend to have subject/agents which are co-referential with the subject/agent of the main clause, such as the dual subject of the second clause, signaled by the dual prefix *y-* in (34), the first person plural subject in the second clause indicated by the first person plural prefix *mi-* in (35), or the dual subject in the second clause, indicated by *y-* in (36). The preposition *ni* may be glossed 'to' in these clauses.

(34)   *Ergog   y-eyja   **ni**   y-ob   mok.*
        they.DU DU-go   for   DU-pluck   pandanus
        'they went to pick pandanus.'   [T5]

(35)   *Mif   mifin   mi-ofuy   erá   en jug   mif   **ni** mi-est(a)   mok.*
        we.PL   1PLPOS   1PL-tradition   THM   do   against we.PL for 1PL-suck   pandanus
        'We our traditions forbid us to suck (eat) pandanus.'   [D]

(36)   *ergog   noga   y-ej   y-ahaw   **ni** y-orka   miy*
　　　 they.DU REL   DU-female DU-descend for DU-carry water
　　　 'they (two) who were females went down to carry water.'   [T7]

Purpose clauses which have a different agent than the agent in the main clause tend to be preceded by a pause, such as the subject *miy* 'water' in (37) or the implicit subject *bua* 'you.SG' in (38).

(37)   *Ofa   ah   god   ewes, **ni** miy   ofof   jig.*
　　　 s/he   hack   ditch cavity for water run   LOC
　　　 'He dug out a ditch for water to run in.'   [D]

(38)   *Dif di-oksug   bua   tas,   **ni** bi-ogos rud-a.*
　　　 I   1SG-finish.off you.SG again for 2SG-die ultimately-PGE
　　　 'I (will) eventually give you the final blow, so that you ultimately die.' [T18]

Indirect causation is expressed when a causative verb, such as *engit* 'make' in (39), is the main verb preceding a purpose clause.

(39)   *Ofa engit dif, **ni** di-okockoda.*
　　　 s/he make I   for 1SG-stumble
　　　 'He made me to trip.'   [D]

When *ni* 'for' links a clause following a CTP (i.e. a predicate which may take a clausal complement), such as *egen ofoj* 'pledge' in (40) or *eskijig* 'agree' in (41), the subordinate clause expresses the intent of the agent, but does not function as the object of the predicate, as does the complement clause introduced by the complementizers *rot* and *ohot* in (42).

(40)   *Ofa egen   ofoj   **ni** en   somus jig   ari   erg-ak*
　　　 s/he promise pre-set   for come back   LOC   week NUM:1-two
　　　 'She pledged to come back in two weeks.'   [T29]

(41)   *Eri   i-eskijig **ni** i-en   keradi.*
　　　 they.PL 3PL-agree for   3PL-do   work
　　　 'They agreed to work.'   [D]

(42)   *Ofa egen   ofoj   **rot** **ohot** [ofa   em-en   jig=kef].*
　　　 s/he promise pre-set   about say   s/he IRR-come LOC=here
　　　 'He pledged that he would come here.' (indirect quote)   [D]

Adhortative constructions, involving urging or encouraging, employ purpose clauses to express their main action. The verb *ohan* '?', has an unclear meaning and origin, but is possibly a fusion of the verb sequence *oh en* (emit do) into a single phonological form,

meaning something like 'allow' or 'join'. (The initial vowel of *en* has been lowered to /a/.) The subject of the main clause is always a second person pronoun: *bua* 'you.SG' (43) and (45), *yoga* 'you.DU or *yua* 'you.PL'(44), whereas the subject of the purpose clause is always a first person pronoun: *mif* 'we.PL'(44), *yef* 'we.DU'(43) and (45), or as in (46) indicated by the dual pronominal prefix *y-*.

(43) *Bua   bi-ohan **ni** yef   y-en   mar.*
      you.SG 2SG-?   for we.DU DU-do thing
      'Let's do it.' (lit. for we do the thing)   [D]

(44) *Yua   yi-ohan **ni** mif mi-eyja jig   pasar*.
      you.PL 2PL-?   for 1PL 1PL-go LOC   market
      'Let's go to the market.'   [D]

(45) *Bua   bi-ohan **ni** yef   y-ah   mar   tas   roga*], *esha maw*
      you.SG 2SG-?   for we.DU DU-hack thing again first, from sun

      efi-ah   esir jog.
      sharp-INTN   fall already
      'Let's us hoe again, because the sun's heat has already diminished.'   [D]

(46) *Bua   bi-ohan **ni** y-osok   y-of   mekekew **ni** y-er*
      you.SG 2SG-?   for DU-climb.up   DU-fell lg.bamboo for DU-shave

      mesigebra.
      bow
      'Let's go up [and] fell large bamboo to shave (make) bows.'   [D]

11.2.4 Negative purpose clauses

The adversarial preposition *jug* 'against', which introduces adversarial goals (§4.3.6), may also introduce a clause coding negative purpose, as in (47) and (48). Clauses which signal negative purpose may not be negated, as their expression of intent is inherently negative.

(47) *Bua   bi-**et**   mar **jug**   bi-osorn(a) efef.*
      you.SG 2SG-eat thing against 2SG-hunger   ache
      'Eat something lest (you) hunger [so] it aches (i.e. be really hungry).'   [D]

(48) *Efer no-ma-i   et ariawun   **jug**   esirn(a).*
      child DNR-far-GIV eat medicinal.treatmt against sick
      'The kid took the medicine lest (he) be sick.'   [T29]

When *jug* introduces clauses with a subject/agent different than the matrix clause, it is preceded by a pause, as in (49).

(49)   *Bua   bi-et   ariawun   no-ma-i,   **jug**   m-efer   em-en*
        you.SG   2SG-eat   medicinal.treatmt   DNR-far-GIV   against   NR-sore   IRR-do

        bua.
        you.SG
        'Take the medicine, lest the wound would affect you.'   [D]

The adversarial preposition *jug* 'against' as a verbal adjunct (§4.1.4) is a constituent of an adjunct construction, an idiomatic unit. Adjunct constructions may take a clausal complement, that is, an embedded clause, whereas the preposition *jug* introduces unembedded clauses, that is, adverbial clauses.

The adversarial preposition *daka* 'avert', which encodes negative benefactive goals, as in (50), is used infrequently to signal a negative purpose clause, as in (51). Like the adversarial preposition *jug* 'against', there is no pause preceding it.

(50)   *Eri   no-ma-i   i-et   mar   **daka**   dif.*
        they.PL   DNR-far-GIV   3PL-eat   thing   avert   I
        'Those ones ate it away from me.'   [D]

(51)   *Eri   i-et   mar   **daka**   i-osorn(a)   efef.*
        they.PL   3PL-eat   thing   avert   3PL-hunger   ache
        'They ate lest (they) hunger [so] it aches.'   [T3]

11.2.5 Replacive clauses

The non-spatial preposition *sof* 'instead (of)', which encodes replacive goals, such as *dif* 'I' in (52), also introduces clauses, indicating replacive events, as in (53).

(52)   *Ofa   orka   taksi=kef   **sof**   dif.*
        s/he   carry   taxi=here   instead   I
        'He is driving the taxi instead of me.'   [D]

(53)   *Ofa erg-em   eser,   **sof**   en   emka,   oduk   buas(a)-ir   i-en*
        s/he NUM:1-CST   pass   instead   do   poison   order   companion-PL   3PL-do

        i-ot   (kuk)   mowah
        3PL-stand   along   outside
        'One of them passed (transgressed), instead of poisoning (the other), (he) sent his companions to stand outside (ambush him)'   [T15]

11.2.6 Manner clauses

The non-spatial verbal preposition *okuk* '(be) like' which encodes manner (peripheral) arguments, such as *mahterew* in (54), also introduces manner clauses, having a simulative function, that is, they indicate the manner in which the event of the preceding clause takes place, such as the manner clause *ofa ef mar* in (55) and the clause *bua buwun* in (56) in which the possessive pronoun *buwun* '2SGPOS' has a predicative function.

(54)   *Ofa   eseki medefa owok   **okuk** mahterew*
          s/he   fix   sago   outgrowth like   lattice
          'he fixed sago branches like a lattice'   [T22]

(55)   *oruskej mesigebr(a) dokun   marog **okuk** ofa   ef   mar.*
          grasp   bow   and   arrow like   s/he   shoot thing
          '(he) grasp his bow and arrows like he was shooting.'   [T23]

(56)   *Bua   bi-oruskej   mar no-ma-i   ec   m-ejg(a)-im(a)   **okuk***
          you.SG 2SG-grasp   thing DNR-far-GIV press.on   RECIP-graze   like

          bua   buwun=ey?
          you.SG   2SGPOS=Q
          'You (all) picked up those things in rapid succession like you might own
          (them).'(press.on graze e.o. = rapid succession)   [D]

The verbal phrase *oromna jena* 'according to', composed of the verbal preposition *oromna* plus the verb-phrase adverb *jen(a)* 'precisely', codes manner arguments, such as *mar efeyu ofuy* in (57), and may also link manner clauses, such as *buaha buduy ejgen* 'your own self desires' in (58) and *raja Firawn ofon oduy ejgen* 'king Firawn desires' in (59).

(57)   *Eri   i-or   mod, **oromn jen(a)** mar efeyu   ofuy   noga*
          they.PL 3PL-build house follow   precise   thing`patterned   example REL

          eri   i-ek.
          they.PL 3PL-see
          'They built the house, according to the design example which they (had) seen.'
                                              [TT]

(58)   *Bua   bi-esah   mar no-ma-i,   **oromn jen(a)** buaha   bi-oduy*
          you.SG 2SG-put   thing DNR-far-GIV follow   precise   2SGRX   2SG-front

          ejgen.
          know
          'Put the stuff wherever you desire.' (front know = desire)   [D]

(59)   *Ofa en mar, **oromn jen(a)** raja[58] Firawn ofon   oduy ejgen.*
        s/he do thing follow   exact king Firawn 3SGPOS front   know
        'He did things however king Firawn wanted.'   [TT]

11.2.7 Causation clauses

The verbal preposition *esha* '(be) from', which codes source, (the entity moved away from), such as *moroj* in (60), also introduces clauses expressing causation. As the cause for the event of the matrix clause, an external or physical factor impels the agent, such as *difenen* '(I'm) hot' in (61) or *osorna efef* '(he) hungers [so] (he) aches' in (62). Causation clauses typically express an antecedent event which the agent of the first clause does not control, such as *efif eseter* 'very chilled' in (63). Causation clauses signaled by *esha* have the same subject/agent as the main clause, and have no pause preceding the verbal preposition.

(60)   *ofa   ogow merga owok   **esha** moroj*
        s/he   chop wood   outgrowth from path
        'he chopped the tree branches away from the path'   [T19]

(61)   *Dif di-oduy   efena   **esha** di-efenen.*
        I   1SG-front emanate   from   1SG-hot
        'I pant because I'm hot.'   [D]

(62)   *Ofa ecira ednorur   **esha** osorna efef.*
        s/he walk   enervated from   hunger ache
        'He walks weakly because he hungers [so] he aches (he's starving).'   [D]

(63)   *Eferiok   no-ma-i   ah   oydu(y)(e)d-i-ef   **esha** efif   eseter.*
        sm.child   DNR-far-GIV lie   front-join-?-near   from   chilled much.more
        'The small child is curled up because he is very chilled.'   [D]

11.2.8 Reason clauses

The verbal preposition *esha* '(be) from' also signals the relation reason, indicating rationale, such as *ofon ebir efef* 'his head ached' in (64), and *mar nomi ah gug yergaha* 'the thing belongs to them' in (65), or explanation by the speaker for the event of the main clause, such as *ofa oh efena ros* in (66). When *esha* indicates reason, it is preceded by a pause and occurs under a separate intonation contour.

(64)   *Ofa   et ariawun,   **esha** ofon   ebir   efef.*
        s/he   eat medicinal.treatmt   from   3SGPOS head   ache
        'He took medicine, because his head ached.'   [D]

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[58] The word *raja* 'king' is borrowed from Malay

(65)　*Bua　bi-em-eyta mar　no-ma-i　　edak,　**esha** mar*
　　　you.SG　2SG-IRR-take thing DNR-far-GIV　NEG.DEON　from　thing

　　　no-ma-i　　ah gug　y-erg-aha.
　　　DNR-far-GIV　lie to　DU-3DU-RFL
　　　'You shouldn't take that, because that belongs to them.'　　[D]

(66)　*Ofa　em-ogos néesa,　**esha** ofa　oh　efena ros.*
　　　s/he　IRR-die not.yet　from　s/he　emit　spirit still
　　　'He is not dead yet, because he still breathes.' (emit spirit = breathe)　[D]

Reason clauses tend to express the motivation for events which have been realized (Thompson and Longacre 1985:185). To express an unrealized motivation, the verb must be marked for irrealis marked with *em-*, such as *et* 'eat' in (67), *ef* 'shoot' in (68) and *es* 'spray' in (69).

(67)　*Bua　bi-esah　　mars ofog jig mef i-da=eyj(a),　　**esha** mes*
　　　you.SG　2SG-put　　game meat LOC rack　VIS-up=THITHER　from　dog

　　　em-*et.*
　　　IRR-eat
　　　'Put the game meat on the rack up there, because dogs would eat it.'　[D]

(68)　*Bi-osofs(a) efer　no-ma-i,　　**esha** ofa **em**-ef　dif eke*
　　　2SG-hold.on child　DNR-far-GIV　from　s/he IRR-shoot I　almost
　　　'Hold on to the kid, because he is ready to shoot me.'　　[T23]

(69)　*Bua　bi-of　merga　no-ma-i　　deci-ci,　**esha** owot*
　　　you.SG　2SG-fell wood　　DNR-far-GIV slow-RED　from　secretion

　　　em-*er-es　　buwun　miyes.*
　　　IRR-CAUS-spray　2SGPOS　clothes
　　　'Fell that tree slowly, because its sap would spray your clothes.'　　[D]

Reason clauses when pre-posed are highly marked, giving them pragmatic prominence. Pre-posed reason clauses are typically followed by a pause, whether conjoined by a conjunction, such as *edá* 'then' in (70), or juxtaposed, as in (71).

(70)　**Esha** *efer　no-ma-i　　emesa mes, edá ofa ok dokun　　tas*
　　　from　child　DNR-far-GIV　fear dog　then s/he flee additional　again

　　　esebra.
　　　continuous
　　　'Because the child was afraid of the dog, then he fled increasingly.'　　[T27]

(71)   **Esha** *miyefen ofod   em-edegejg(a) éra, mif   mi-em-ec   gamgam*
        from   money   surplus   IRR-match.up   NEG we.PL 1PL-IRR-buy sweets

        decirma   éra.
        definite   NEG
        'Because there isn't enough money left over, we definitely aren't buying candy.'
                                                                                    [D]

Not all clauses signaling reason are related to the event of the main clause. Some are
related to the fact that an act of communication is taking place. Thompson & Longacre
(1985:203) call this type of clause a "speech act clause", as it does not modify the main
clause, but rather modifies or qualifies the speech act performed in the utterance of the
main clause. In (72) and (73) the reason clause introduced by *esha* explains the speaker's
cognizance of the event or state in the main clause, rather than indicating the reason for
the event.

(72)   *I-osnok   i-oku   merah ebi=kef   ros,* **esha** *dif di-esah*
        3PL-person 3PL-burn fire   recent=here still from I   1SG-put

        di-etma jig   mofur, tiná ofufom ros.
        1SG-arm LOC   ashes   but   hot   still
        'A fire still burned quite recently, [I know] because I put my hand in the ashes,
        but they were still warm.'   [D]

(73)   *Osnok erg-es   no-ma-i,   ofa ahawah,* **esha** *ofa em-en   maeken(a)*
        person   NUM:1-one DNR-far-GIV s/he lazy   from s/he IRR-do garden

        kocka éra.
        well   NEG
        'That person, he is lazy, [I know] because he doesn't work well in the garden.'
                                                                                    [D]

11.3 Conjoined clauses

The conjunction *dokun* 'and', the aspectual adverb *eke* '(be) almost' and the disjunctive
conjunction *éra* 'DSJ' conjoin noun phrases; all other conjunctions link clauses only.
Clauses linked by conjunctions typically have a pause preceding the conjunction with the
conjunction occurring under the intonation contour of the clause it precedes.

11.3.1 Conjunction

The conjunction *dokun* 'and' and the adverb *dokun* 'additional' share a probable common
origin, the transitive verb *odokun* 'accompany'. The conjunction *dokun,* suggesting a
closed list, primarily conjoins noun phrases of equal status, such as *es-efer nomi* and

ej-efer nomi in (74), but may also link clauses of equal status. The order of the clauses is not iconic and therefore may be reversed with little effect on meaning, such as the conjoined clauses in (75), and in (76), which have different subjects.

(74)   *Es-efer   no-ma-i   **dokun**   ej-efer   no-ma-i,   ergog...*
       male-child DNR-far-GIV and   female-child   DNR-far-GIV they.DU
       'The young man and young woman, they...'   [D]

(75)   *Mofun   efca   erá   ah jig memeg(a) oduma,   **dokun**   efega ahaw*
       vine   hub   THM lie LOC mountain hill   and   body descend

       jig   god   (ew)es.
       LOC   ditch   cavity
       'The vine's base is on the hill and its body (runners) descend into the ditch.'
                                                                         [T29]

(76)   *Mofuga noga aksa   erá   okuk mek   noga orokec,   **dokun**   mofuga*
       palm.rib REL   tall   THM   like   pig   REL   large   and   palm.rib

       noga etkebra erá   okuk mek   noga oskaytok.
       REL   short   THM   like   pig   REL   small
       'Palm ribs (tally sticks) which are long are like (represent) pigs which are large and palm ribs which are short are like (represent) pigs which are small.'[D]

The conjunction *dokun* also conjoins clauses which have the same subject, such as *eri* 'they', expressed lexically in the first clause, but as the pronominal prefix *i-* '3PL' in the second clause in (77), or the subject *ergog* 'they.DU' expressed lexically in the first clause, but as the pronominal prefix *y-* 'DU' in the second clause in (78).

(77)   *eri   i-em-en   maekena etew éra   **dokun**   i-em-ok   mar*
       they.PL 3PL-IRR-do garden   much NEG and   3PL-IRR-bear thing

       okum   éra.
       heavy   NEG
       'they didn't work in the garden a lot and didn't carry heavy things.'   [T21]

(78)   *ergog   y-og   merga **dokun** y-os   mofun*
       they.DU DU-bend wood   and   DU-sever vine
       'they bent sticks [to break them off] and severed vines.'   [D]

11.3.2 Temporal succession

The conjunction *edá* 'then', which indicates a relationship of temporal succession, is used primarily to link successive events. Its origin is quite possibly the verb *ed* 'join'. The ordering of clauses conjoined with *edá* is iconic, such that the ordering may not be reversed, as in (79) and (80).

(79)   *Marefen   er   eyj(a) ter(aw) merga   ofoj   no-ma-i,   **edá**   mif*
        grass   grow go.to above   wood   blunted DNR-far-GIV then   we.PL

       mi-em-ek   éra.
       1PL-IRR-see   NEG
       'Grass grows over the tree stump, then we don't see it.'   [D]

(80)   *ofa   of   merga no-ma-i   **edá**   esim*
        s/he   fell wood   DNR-far-GIV then   fall.over
        'he felled the tree, then it fell over.'   [T7]

Multiple clauses conjoined by *edá* may occur, although the subject referent must be inferred from context. For example, the second clause *esah jig mer owoksa* 'put it in the side rooms' in (81) has a subject co-referential with the subject of the first clause, but the subject of the third clause *edegejga romreg* is co-referential with *ofoga* 'flesh', the object of the first clause.

(81)   *ofa   egeja,   dokun ogow ofoga   toktog(a),   **edá**   esah jig mer*
        s/he   slit.open and   chop flesh   respect.place then   put LOC room

       *owoksa noga ofa eseki no-mis-i,   **edá**   edegejga romreg.*
       subunit REL s/he fix   DNR-former-GIV then   match.up entire
       'he slit (her) open, and chopped up her flesh individually, then placed (it) in the side rooms which he had prepared, then (the flesh) matched up (the rooms) entirely.'   [T7]

11.3.2.1 Conditional clauses

Conditional clauses are inferred as they are not signaled by any type of subordinating morpheme or syntactic marker of conditionality, that is, the protasis is unmarked. The apodosis, which requires an explicit conjunction, is invariably marked by the conjunction *edá* 'then' as a resumptive clause linker, as in (82) and (83). The marking of apodosis only is possibly the function of a strategy which favors marking the end-point or

conclusion (cf. Traugott 1985:300). The realis/irrealis status of the protasis depends upon whether the apodosis is fulfilled, thus irrealis is weak, not distinguishing between a temporal (when) or conditional (if) interpretation. The conditional interpretation is determined pragmatically, being derived solely from context. Thus, the discussion of these inferred conditionals is subsumed under the heading of the conjunction *edá*.

(82)   *dif dadin   ayok   eyta   miyefen gug dif,* **edá**   *di-owha   jig kota.*
     I   1SGPOS mother take   money to I   then   1SG-leave LOC town
     'I (if/when) my mother gives money to me, then I (will) leave for town.'
                                                                 [D]

(83)   *I-osnok   romreg i-etit   erin   i-ecirf,*   **edá**   *erin   i-efega*
     3PL-person all   3PL-trim 3PLPOS 3PL-fingernail then   3PLPOS 3PL-body

     em-oyf-omof   se.
     IRR-good-RED   certain
     '(If/when) people trim their fingernails, then their bodies will certainly be
     healthy.'   [D]

The illocutionary force of a conditional clause may be different than the main clause which follows, such as a conditional clause followed by an imperative, as in (84).

(84)   *bua   bi-eteyj(a)   esi-sim,   edá   bi-ah   jig mer   no-ma-i.*
     you.SG 2SG-eye   fall.over-RED then   2SG-lie LOC room DNR-far-GIV
     '(If/when) you are sleepy, then lie down in that room.'   [D]

Negation of either protasis, as in (85), or apodosis, as in (86), is possible, as both are independent clauses.

(85)   *Bua   bi-et   mom   uska   no-ma-i,   edá   bua*
     you.SG 2SG-eat cassava single.rooted DNR-far-GIV then   you.SG

     bi-em-odu   owok   kus   no-ma-i   edak.
     2SG-IRR-tell forbidden short.span DNR-far-GIV NEG.DEON
     '(If/when) you eat single-root cassava, then you shouldn't say a forbidden
     (word) [at] that time'   [D]

(86)   *Mif   mi-em-en   jug   ergog   éra,   edá   i-osnok   romreg*
         we.PL 1PL-IRR-do   against they.DU NEG   then 3PL-person all

         i-em-ejgen   rot ..
         3PL-IRR-know   about
         '(if) we don't forbid them, then everyone will know that ...'   [TT]

There are several instances of the verbal preposition *okuk* '(be) like' marking the protasis. This usage calques on the (Indonesian) Malay word *kalau* 'if', which introduces conditional clauses, as in (87) and (88).

(87)   **Okuk** *eri-orna   i-eyja   ni   i-em-ef-ima,   eri-(e)jena   erá*
         like   they.PL-man 3PL-go for 3PL-RECIP-shoot they.PL-woman THM

         i-eker   jig   mod   gijga.
         3PL-sit   LOC   house only
         'If the men go to shoot each other (war), the women just stay at home.' [D]

(88)   **Okuk** *miy   ofufom ociga osnok   ofon   etimeda, edá   efer efef.*
         like   water hot   strike person 3SGPOS appendage then sore ache
         'If hot water strikes the person's appendage, the sore (will) ache.'   [D]

11.3.3 Result

The conjunction *erogá* [ɛɾogá] 'hence' or 'so' is a reduced form of the original sequence *esha roga* [ɛ́sxa ɾóga] (from first), with a few speakers still using the full expression as a conjunction. It primarily signals a consequential or result relationship, but retains a component of sequentiality, such that the order of the clauses is iconic. The event of clauses introduced by *erogá* may be realized, as in (89) and (90), or unrealized, as in (91) and (92). The main clause provides the state of affairs or event which brings about the effect introduced by *erogá*.

(89)   *Ofa ef   mek   no-ma-i   rogrog,   **erogá** mek   no-ma-i   em-of*
         s/he shoot pig   DNR-far-GIV immediate. hence pig   DNR-far-GIV IRR-bite

         ofa   éra.
         s/he   NEG
         'He shot the pig immediately, so the pig didn't bite him.'   [T14]

(90)   *Ejena   no-ma-i   ebsita,   **erogá** em-ok   efer   éra.*
         woman   DNR-far-GIV   infertile hence   IRR-bear   child   NEG
         'The woman is infertile, so (she) doesn't have a child.'   [D]

(91)   *ergog   y-ot   jug   mosga no-ma-i,   **erogá**   méesa*
         they.DU   DU-stand   against bridge DNR-far-GIV   hence   enemy

         i-em-eyet   osuj   eri   (ér)a
         3PL-IRR-follow   upon   they.PL   NEG
         'they guarded the bridge, so the enemy wouldn't follow them.'   [T7]

(92)   *ofa okca   meni   noga oyna jig merah titir,   **erogá**   merah*
         s/he turn.over banana   REL cook LOC fire   constant hence   fire

         em-et.
         IRR-eat
         'She constantly turned over the bananas that she cooked over the fire, so the fire
         would burn them (evenly).'   [D]

11.3.4 Contrast

The contrastive conjunction *tiná* 'but' signals antithetical or contrastive relations, as in
(93) or (94).

(93)   *Moroj erg-es   em-ah   éra,   **tiná**   ofa ecira etk(a)-em(a) dudu.*
         path   NUM:1-one IRR-lie NEG   but   s/he walk divide-far   incrementally
         'There wasn't a trail, but he walked [and] cut through by increments.'   [T29]

(94)   *Orna no-ma-i   em-ok   efer-ej   éra, **tiná**   ok efer-es   esis.*
         man   DNR-far-GIV   IRR-bear child-female NEG but   bear child-male   exclude
         'The man doesn't have daughters, but has sons only.'   [D]

A second type of contrastive relation signaled by *tiná* 'but' is that of unexpected
outcome, such as *mohega ebsa rot Yom* in (95) and *mofun eferu ebga fen mesigebra* in
(96).

(95)   *Edá, Yom ok osok tum   mohega, **tiná** mohega ebs(a)   rot   Yom.*
         then   Yom fled climb onto k.o.tree but   k.o.tree break.off about Yom
         'Then, Yom fled [and] climbed onto the *mohega* tree, but the *mohega* tree broke
         off with Yom (in it).'   [T6]

(96)   *Ofa   ef   mek,   **tiná** mofun   eferu   ebga   fen   mesigebra.*
       s/he   shoot   pig   but   vine   segment   torn   from   bow
       'He shot (at) the pig, but the bow string was torn from the bow.'   [D]

Although unusual, two clauses introduced by *tiná* may occur in succession, such as in (97), both clauses expressing an unexpected outcome.

(97)   *Ergog   y-eker,   **tiná**   y-ek,   **tiná**   ergen   méesa   i-éysaha.*
       they.DU   DU-sit   but   DU-see   but   3DUPOS   enemy   3PL-reach
       'They waited, but saw, but their enemy arrived.'   [T10]

The final clause linked by the contrastive conjunction *tiná* 'but' may be reduced when negated, a "gap" indicating the elided predicate(s), as in (98) negated by *éra* and (99) negated by *néesa*.

(98)   *Ofa   oduy   os-os   rot   ecira   éra   osiom   jera   ofon*
       s/he   front   move.horiz.-RED   about   walk   DSJ   play   with   3SGPOS

       *uas(a)-ir,   **tiná éra**.*
       companion-PL   but   NEG
       'He wanted to walk (travel about) or play with his companions, but didn't.' [D]

(99)   *I-osnok   romreg   i-osra   jig   mod   no-ma-i   jog,   **tiná**   ah   jig*
       3PL-person   all   3PL-enter   LOC   house   DNR-far-GIV   already   but   lie   LOC

       erg-ak   erá   néesa.
       NUM:1-two   THM   not.yet
       'Everyone has entered the house, but [there] are two [who have] not yet.' [D]

11.3.5 Enumeration

The aspectual verb *eke* '(be) almost' or 'nearly', glossed as 'ENUM' when functioning as an enumerator, primarily conjoins noun phrases, as in (100), but may also link clauses. As a combinatory-type coordinator, it permits two or more units to be conjoined. The number of predicates enumerated may be as few as two or as many as memory can hold. The enumerator *eke* may be distinguished from other types of conjunctions, in that it follows each unit which it conjoins, as in (101) and (102), and is part of the intonation contour of the clause which it follows, with a pause following the enumerator (indicated by a comma).

(100) *Mar okuk medeg efi **eke**, mecif efi **eke,** mokfa efi **eke**, mar*
       thing like   bamboo leaf ENUM nettle leaf ENUM k.o.tree leaf ENUM thing

       no-ma-i   romreg en-ot   no-ma-i   ros.
       DNR-far-GIV all   DUR-stand DNR-far-GIV still
       'Things like bamboo leaves, nettle leaves, mokfa leaves, all those things are still there.'   [T25]

(101) *Edá   ergog   y-ok   mergej   tin **eke**,   y-ohsud(a)   mar-mosorn(a)*
       then   they.DU DU-bear firewood also ENUM   DU-search.for   thing-hunger

       *noga   edeses   tin   **eke**.*
       REL   many   also   ENUM
       'Then they (two) brought firewood also, searched for much food also'   [T23]

(102) *Esha i-osnok   noga okuk no-ma-i   erá i-eyta   mar noga*
       from 3PL-person REL like DNR-far-GIV THM 3PL-take thing REL

       *oyf-omof **eke**,   eri   i-eyta   mar noga i-osnok   susuy*
       good-RED ENUM   they.PL 3PL-take thing REL 3PL-person   other.kind

       *i-em-okecic   ohot okuk oskur éra **eke**, eri   i-eyta   mar   noga*
       3PL-IRR-show   say   like bad   THM ENUM they.PL 3PL-take thing REL

       *decir   gijga **eke**.*
       correct only ENUM
       'The reason [for that is] people who are like that (they) do things which are good, they do things which other people don't point out as bad, they do things which are only correct.'   [TT]

11.3.6 Disjunction

The negative adverb *éra* 'NEG' may function as a conjunction which signals disjunction, quite possibly with an original meaning something like: '(if) not (then)'. It most frequently conjoins noun phrases, but may also link clauses. When it functions as a disjunctive conjunction, glossed 'DSJ', its distribution is similar to that of other conjunctions, that is, it occurs immediately preceding the second clause, and is under the same intonation contour as the clause it precedes, as in (103) and (104). In conjoined clauses which have the same subject, the subject of the second clause may not be expressed lexically, as in (105). The conjunction *éra* is repeated preceding each conjoined clause, as in (106). The use of a negative adverb as alternative or disjunctive coordinator is not uncommon cross-linguistically. For example, Maybrat, a language of the central Bird's Head, also utilizes a negator to indicate disjunction (Dol 1999:261).

(103)   *Bua   bi-eyta mar no-ma-i   jug   dif ejog gijga, **éra**   dif*
    you.SG 2SG-take thing DNR-far-GIV against I   next only   DSJ   I

    di-omta   mar no-ma-i   gug bua.
    1SG-demand thing DNR-far-GIV to   you.SG
    'Give me that next, or I (will) demand it publicly of you.'   [D]

(104)   *mif   mi-ofjig   eri-orna   dokun   eri-(e)jena   **éra** eri-(e)jena*
    we.PL 1PL-help   they.PL-man   and   they.PL-woman DSJ they.PL-woman

    i-ahusta   mar-mosorn(a)   fen   i-eferiok.
    3PL-withhold thing-hunger   from   3PL-sm.child
    'we helped the men and women, or the women withheld food from the small
    children.'   [T11]

(105)   *Efer   no-mi,   ofa ogos jog=ey   **éra** eteyj(a) (eb)ah ros=ey?*
    child DNR-far-GIV s/he die   already=Q DSJ eye   live   still=Q
    'That kid, has he already died or (is he) still alive?' (eye live = be alive)[D]

(106)   *edá   i-ohsud(a)   mar-(ew)es **éra** i-ohsud(a)   jender-(ew)es   **éra***
    then 3PL-search.for thing-cavity DSJ 3PL-search.for   window-cavity   DSJ

    i-oko   mog(a).
    3PL-puncture   wall
    'then they looked for a hole or looked for the window or punctured the wall.'
                                                                      [T18]

The final clause conjoined by the disjunctive conjunction *éra* may be reduced when negated, a "gap" signaling the absent predicate in the clause following the conjunction and preceding the negative adverb. In this situation, the negator may not be the negative adverb *erá* 'NEG', but must be another negative adverb, such as the independent word *(o)gurá* 'no' in (107), the allomorph *gurá* 'NEG', as in (108), the negative adverb *néesa* 'not yet' or the negative adverb *edak* 'NEG.DEON', as in (109).

(107)   *Bua   bi-owha   **éra** ogur(a)=ey?*
    you.SG 2SG-leave DSJ no=Q
    'Are you leaving or no?'   [D]

(108)   *Dif di-osok jig taksi no-kef   jef=ey, **éra** gur(a)=ey?*
    I   1SG-ride LOC taxi   DNR-here DEON=Q DSJ NEG=Q
    'Should I go on this taxi or not?'   [D]

(109)   *mi-eyh(a) pajak   skod   raja   tin   jef=ey   **éra**   edak=ey?*
        1PL-pay   tax   to   king   also   DEON=Q   DSJ   NEG.DEON=Q
        'should we also pay taxes to the king or shouldn't (we)?'   [TT]

11.3.7 Complex conjunctions

Complex conjunctions are phrasal conjunctions, being composed of combinations of other clause-linking elements, such as a verbal preposition and a conjunction or two conjunctions. They have the same syntactic distribution as the simple conjunctions, as they are preceded by a pause, and occur under the same intonation contour as the clause which they precede.

11.3.7.1 Disjunction-sequential

The complex conjunction *éra edá* (DSJ then) 'otherwise', composed of the disjunctive conjunction *éra* 'DSJ' and the sequential conjunction *edá* 'then', links clauses indicating a disjunctive-sequential relationship, as in (110).

(110)   *Edá,   mif-a mi-esah   meri   or,*   **éra edá**   *mif   mi-owoka*
        then   we.PL 1PL-put   leaf   poisonous.plant   DSJ then   we.PL 1PL-name

        sohoha   mi-ebah   ruruy.
        unintentional   1PL-live   unrestrict.
        'Then, we put (reserve) poisonous leaves [for revenge], otherwise, we have no special designation [and] live however (we want).'   [T17]

11.3.7.2 Contra-expectation

In the context of a set expectations, the contra-expectation conjunction *tinogurá* 'but not' indicates a reversal or frustration of the expected outcome, as in (111) and (112). It differs only slightly from the contrastive conjunction *tiná* 'but', which may introduce an unexpected outcome. The contra-expectation conjunction is composed of the contrastive conjunction *tiná* 'but' plus the free negation word *ogurá* 'no', forming a single phonological unit, which may be realized as [tinoguɾá] or [tinaguɾá].

(111)   *Dif di-esed-a,   **tinogurá**   di-edis.*
        I   1SG-grab-PGE   but.not   1SG-miss
        'I grabbed (at it), but unexpectedly missed.'   [D]

(112)   *Dif di-ef   mem, **tinogurá**   di-edis.*
        I   1SG-shoot bird   but.not   1SG-miss
        'I shot (at) a bird, but unexpectedly missed.'   [D]

The contra-expectation conjunction *tinogurá* may occur as a tag, following a positive clause to indicate reversal, as in (113-115).

(113)   *y-omut(a)   miy   okow mogum   **tinogurá**.*
         DU-demand cloth base   each.other but.not
         'they (two) publicly demanded Eastern cloth from each other, but didn't (get it).'
                                                                         [T15]

(114)   *Mar e-no-kef erá, mi-er-etka   mergej,   **tinogur(a)**   nom.*
         thing FOC-here THM 1PL-CAUS-split firewood, but.not   VER
         'This thing, (we) split firewood (with), but unexpectedly can't.'   [T23]

(115)   *Y-efer,   mona edegejga ni yoga   y-osok   i-eyja,   **tinogurá**.*
         DU-child   day   match.up for you.DU DU-climb.up VIS-THITHER but.not
         'Kids, [its] the appropriate time for you (two) to come up here, but (you haven't).'   [T23]

11.3.7.3 Intention

The complex conjunction *esha ni* 'in order to', composed of the verbal conjunction *esha* 'from' and the preposition *ni* 'for', expresses the relation intention. The semantic difference between purpose clauses introduced by *ni* and those introduced by *esha ni* is slight and in some instances the two are interchangeable, as in the clause introduced by *esha ni* 'in order to' in (116) and the clause introduced by *ni* 'for' in (117). The difference is seen in the degree of control or choice which the agent in the matrix clause has over the agent or event of the subordinate clause. In purpose clauses, the agent has a great deal of choice or control, but in intention clauses the agent of the matrix clause may not be able to control the agent, as in (118) and (119), or event of the subordinate clause, as in (120).

(116)   *Dif di-en   mar **esha ni** di-er-ec   mar-mosorn(a).*
         I   1SG-do thing from for 1SG-CAUS-buy thing-hunger
         'I do things (work) in order to buy food.'   [D]

(117)   *Dif di-en   mar **ni**   di-er-ec   mar-mosorn(a).*
         I   1SG-do thing for   1SG-CAUS-buy thing-hunger
         'I do things (work) to buy food.'   [D]

(118)   *Ergog   y-eker ni mona noga oyf-omof erg-em   **esha ni***
         they.DU DU-sit for day   REL   good-RED NUM:1-CST from for

         y-er-ec   efeyu.
         DU-CAUS-press.on   patterned
         'They waited for another time that was good in order to get revenge'   [T23]

(119)   *edá   bi-odos   dif jig   mirok-ah   i-ba,   **esha ni**   *dif*
         then   2SG-meet   I   LOC   jungle-INTS   VIS-level   from   for   I

       di-oksug   bua   tas ..
       1SG-finish.off   you.SG   again
       'then meet me in the deep jungle over there, in order that I (can) later finish you
       off..'   [T18]

(120)   *Bua   bi-er-ef-a   mesnom   efej eyj(a)   ese-sen   jig*
         you.SG 2SG-CAUS-distribute-PGE   corn   dried go.to   far-RED   LOC

       esha ni *er   oyf-omof.*
       from   for   grow   good-RED
       'Plant the corn seeds rather far apart, in order that they grow well.'   [T29]

11.3.7.4 Conclusion

The complex conjunction *esha edá* (from then) 'therefore', composed of the verbal
preposition *esha* 'from' and the conjunction *edá* 'then', expresses a conclusive
relationship, in that, the first clause provides the basis, as in (121) and (122), or
motivation, as in (123), for the conclusion in the clause introduced by *esha edá*.

(121)   *Mif   mi-esejah   mar jog,   **esha edá**   mif   mi-orot   eri*
         we.PL 1PL-prepare   thing already from then   we.PL 1PL-go.with   they.PL

       jig   kota.
       LOC   town
       'we had already prepared, therefore we accompanied them to town.'   [D]

(122)   *Miy   no-ma-i   erá,   efena etkebra gijga,   **esha edá**   mif*
         water DNR-far-GIV   THM   depth short   only   from then   we.PL

       mi-ewer-a   jig.
       1PL-cross-PGE   LOC
       'The river, it is shallow, therefore we (can) cross it.'   [D]

(123)   *Maw   edma   jog   e-no-kef,   **esha edá**   mif   mi-owha ni*
         sun   be.visible already FOC-DNR-here   from   then   we.PL 1PL-leave for

       mi-en   maeken(a)   gijga.
       1PL-do   garden   only
       'The sun is already out right now, therefore we should leave to work in the
       garden.'   [D]

11.4 Conjunctions introducing sentences

Sentences may be introduced by some of the same conjunctions which conjoin clauses. But in contrast to their distribution when linking clauses, conjunctions introducing sentences occur under a separate intonation contour and are followed by a slight pause (symbolized by a comma), separating them from the clause or sentence which they introduce. These conjunctions signal the same relations in linking sentences as they do when conjoining clauses, such as *edá* 'then' indicating temporal succession, and *erogá* 'hence' indicating a consequential relationship, as in (124), *tiná* 'but' signals contrastive relations as in (125), and the complex conjunction *esha edá* 'therefore' introduces a conclusion, as in (126).

(124) ***Edá****, ofa   eyta   misomok   efi eken(a) tin esah osuj   ofog*
        then   s/he   take   tobacco   leaf red   also put upon   flesh

       *no-mis-i   romreg tin, edá   edegejga. **Erogá****, ofa   eyta   osum*
       DNR-former-GIV all   also then   match.up hence   s/he   take   nose

       ofon, dokun efefej   erá   ofa   esah etkebr-ok   jig   oduy.
       tooth and   heart   THM   s/he put   short-side   LOC   front
       'Then, he also took brown tobacco leaves [and] placed them on top of all that flesh, then (they) were matched up. So then, he took the tip of her nose, and her heart he placed near his front.'   [T7]

(125) *"Bi-osofs(a) efer   no-ma-i,   esha ofa em-ef   dif eke." **Tiná***
        2SG-hold.on child DNR-far-GIV from s/he IRR-shoot I   almost but

       i-osnok   enia   i-em-osofs(a)   éra.
       3PL-person   some.other   3PL-IRR-hold.on   NEG
       "Hold on to that kid, because he is on the verge of shooting me." But no one held on to (him).'   [T23]

(126) *edá   ejena no-ma-i,   ofa ogos jog.   **Esha edá***, *m-edina*
        then   woman DNR-far-GIV s/he die   already from then   NR-grandpar.

       mejuen   odu gug y-efer   y-erg-ak   no-ma-i..
       crocodile speak to   DU-child   DU-NUM:1-two DNR-far-GIV
       'then the woman, she died. Therefore, the crocodile ancestor said to the two kids...'   [T23]

When introducing sentences, the conjunction *edá* 'then' may be preceded by a temporal phrase, such as *ojuges* 'once' extended to mean 'a short time (later)', as in (127), or *mona*

ergem tas 'another day later', as in (128). The temporal phrase and the conjunction are under the same intonation contour.

(127) *Edá, ofa em-owha fen. **Oj(u)-(er)g-es edá**, ofa éysaha jig mod.*
then   s/he IRR-leave from   ORD-NUM:1-one then   s/he reach   LOC house
'Then, she left from (there). A short time later then, she arrived at home.' [T23]

(128) ***Mona erg-em   tas   edá,** ergog   y-éysaha kerenga meserf(a) tas..*
day   NUM:1-CST again then   they.DU DU-reach upon   spoon   again
'Another day later then, they happened upon the spoons again ..'   [T23]

The verbal preposition *esha* 'from', which signals the relation reason when conjoining clauses, marks a point or claim in a (logical) argument, when introducing sentences. Like the conjunctions which introduce sentences, the verbal preposition is separated from the sentence by a slight pause and has a separate intonation contour. In (129) the first clause is a command. The following sentence, introduced by *esha*, gives the supporting argument or reason for the command. In (130), the first clause asks a rhetorical question *bua bicha mar midá?* 'what are you looking for?', implying 'there is no reason to search'. The clause introduced by the verbal preposition *esha* offers a reason for the implied assertion, *mar noga enah jig mitos nomi erá ekir jog* 'what was there is already gone'.

(129) *Bua   m-owra   jig   miy   owoka   no-ma-i   edak.   **Esha***
you.SG   IRR-cross LOC   water forbidden DNR-far-GIV NEG.DEON   from

miy   owoka   no-ma-i,   bua   bi-ek,   edá   ok   mas.
water forbidden DNR-far-GIV you.SG 2SG-see   then   bear   rain
'Don't cross by the forbidden pool. Because the forbidden pool, (if/when) you look at (it), then (the evil spirit) brings rain.'   [D]

(130) *Bua   bi-echa   mar   midá? **Esha,** mar   noga en-ah   jig mitos*
you.SG   2SG-look.for thing   what   from   thing REL   DUR-lie LOC pot

no-ma-i   erá   ekir   jog.
DNR-far-GIV THM   empty   already
'What are you looking for? Because whatever was in the pot is already gone.'
[D]

Multiple points introduced by *esha* may support an argument, such as the clauses *yefer nomi yorna jog* 'the kids are already adult men' and *ergog yorka marog* 'they carry bows' (acting like adult men) in (131) are given as reasons by the mother-in-law, arguing that the mothers of the kids should leave the birthing house (on the ground) to live in the main house.

(131)   *Yoga   y-osok   i-en   j(ef)-a-a.   **Esha,**   *y-efer*
you.DU   DU-climb.up   VIS-HITHER   DEON-PGE-PGE   from   DU-child

*no-ma-i   y-orna   jog.   **Esha,**   ergog   y-orka   marog* ..
DNR-far-GIV   DU-man   already   from   they.DU   DU-carry   bow
'You (two) should come up here. [it is] because the kids are already young men.
[it is] because they carry bows...'   [T23]

11.5 Complex linking phrases

The tail-head linkage strategy, typical of Papuan languages and involving a verb from a previous clause (cf. De Vries 2006:812), is not found in Moskona. Instead, complex linking phrases, which are reduced adverbial clauses, function as conjunctions providing semantic overlap, or propositional continuity between clauses, that is, recapitulation is done through these linking phrases, such that syntactic units form a coherent discourse. (cf. C. Lehmann 1988:211; De Vries 2006:817) The complex linking phrase is composed of the verbal preposition *okuk* '(be) like', followed by a demonstrative pronoun, such as *nomi* 'that' or *nomisi* '(that) former' (132), an optional focus adverb, such as *tas* 'again' or *tin* 'also', as in (133), and an optional conjunction, such as *edá* 'then'(134), *tiná* 'but' (135), or *erogá* 'hence' (136). The demonstrative pronoun, marked with −*i* 'GIV' signaling known or given material, has primarily an anaphoric function, always referring to the proposition of the preceding clause. This referencing is an extended function which is typical of deictics and demonstratives (Hopper and Traugott 1993:178, Greenberg 1985:269). Typically, only three components, and more rarely, four may co-occur, but all five have never been observed to co-occur. Complex linking phrases occur under a separate intonation contour from the clauses they link, and are separated by a slight pause from the clause which follows.

(132)   *ofa esah   merga morhog   jig   miy   tas,   tiná omga   jig   miy.   **Okuk***
s/he put   wood decayed   LOC   water   again   but submerge   LOC   water   like

no-ma-i   tas   edá*,   ofa esah   omomka   owos   ekena   jig   miy,*
DNR-far-GIV   again   then   s/he put   breast   produce   red   LOC   water

tina   ok   ecira tusus   jig   miy.
but   bear   walk   to.and.fro   LOC   water
'she again put a decayed log in the river, but it sank into the water. Like that [putting s.t. in the river] again then, she put a brown breast seedpod in the river, but (the current) carried (it) back and forth in the river.'   [T7]

(133)   *ekok, ofa eyta   mosom noga engit fen   mek   ofon*. **Okuk no-ma-i**
        father s/he take   ax   REL   make from pig   tooth like   DNR-far-GIV

        ***tin**,   efer   no-ma-i,   ofa   oduy or-or   jig*
        also   child DNR-far-GIV s/he   front ebb-RED LOC
        'the father, he took the ax which he made from pig's teeth. Like that also [taking
        the pig's teeth ax], the kid, he was confused (about its use)'   [T27]
        (front ebb = be confused)

(134)   *bua   bi-ecira   owas*. **Okuk no-ma-i   edá**, *bua   bi-ejij   dif,*
        you.SG 2SG-walk   strong like   DNR-far-GIV then   you.SG 2SG-twist I

        edá   bi-okog   jig   jef.
        then   2SG-precede LOC   DEON
        'walk hard. Like that [walking hard] then, you should go around me, then
        precede (me).'   [D]

(135)   *Mas   es   etew*. **Okuk no-ma-i   tiná**, *dif di-owha   ni...*
        rain   spray much like   DNR-far-GIV but   I   1SG-leave for
        'It rained a lot. Like that but [although it rained a lot], I left (anyway) for..' [D]

(136)   *ofa esed mes fen   mek tin*. **Okuk no-ma-i   erogá**, *y-ejena*
        s/he grab   dog from   pig also like   DNR-far-GIV hence   DU-woman

        no-ma-i,   ergog   y-osta   orna no-ma-i,
        DNR-far-GIV they.DU DU-chase man   DNR-far-GIV
        'he also grabbed the dogs away from the pigs. Like that [having grabbed the
        dogs] so, the (two) women, they chased the man,'   [T24]

A complex linking phrase may also indicate negation of the preceding proposition, as in
(137). However, the verbal preposition *okuk* is not marked by *em-* 'IRR' as are verbs
affected by negation, indicating that the demonstrative pronoun, not the verbal
preposition is the scope of the negation.

(137)   *Efer   no-ma-i,   ofa os   mek   efej no-ma-i   nes-is.   **Okuk***
        child   DNR-far-GIV s/he singe pig   hair DNR-far-GIV quickly-RED like

        no-ma-i   néesa   edá,   *ekok oduk efer   no-ma-i   ni ok*
        DNR-far-GIV not.yet   then   father send   child DNR-far-GIV for bear

        mergej   owok
        firewood   branch
        'The kid, he singed the pig's hair very quickly. Like that not yet [before the kid singed the hair from the pig] then, the father sent the kid to bring firewood branches'   [T27]

Chapter 12
Speech acts

12.0 Non-declarative sentence types

The major speech-act types are those which assert, question or command, and correspond with the sentence types declarative, interrogative and imperative, which are mutually exclusive in that they may not be combined. Those speech acts which deny an assertion correspond to the act of negation. Declarative sentences (assertions), which are used to make announcements, conclusions, or state facts, etc. have been presented in chapter 8, and so will not be discussed here.

The interrogative (§12.1) and imperative (§12.2) sentence types, along with their respective subtypes will be discussed first, then explicit performatives (§12.3) and imprecatives (§12.4) will be presented, followed by discussion of the grammatical markers which indicate speaker attitude (§12.5). The chapter will conclude with a discussion of negation (§12.7).

12.1 Interrogatives

Moskona retains the basic declarative SVO order for polar and information questions, that is, it does not invert word order for interrogatives. Cross-linguistically this is quite common (Sadock and Zwicky 1985:181, Greenberg 1966:82). There are two basic question types: polar questions and information questions, and two other types which have a non-interrogative function: the reprimand rhetorical question and the indirect question. Polar questions may be broken down into the subcategories: simple polar questions, alternative questions and tag questions. Information questions are subcategorized by the type of interrogative word used in requesting information. The reprimand rhetorical question has a distinctive structure and intonation. The indirect or embedded questions are not questions which seek a response, as they occur as the complement of another clause.

12.1.1 Polar questions

Polar questions seek a comment on the truth of a proposition and are characterized by presence of the polar question marker *–ey* 'Q', which occurs in a fixed position, in that it is cliticized to the final element of the clause, such the demonstrative *nokef* in (1) or the clause-final adverb *nom* 'VER' in (2). The polar question marker *–ey* shares the morphological shape –e(Y) found in other languages in the eastern part of the Bird's Head. These include Meyah (Gravelle 2002:332), Sougb (Reesink 2002b:238), Mpur (Odé 2002:67), Abun (Berry and Berry 1999:102), and Hatam (Reesink 1999:68).

(1) *Buwun   i-efer   e-no-kef=**ey***?
     2SGPOS 3PL-child FOC-DNR-here=Q
     'Your children are [they] these particular children?'   [D]

(2) *Menejog, bua   bi-en   nom=**ey**?*
     tomorrow you.SG 2SG-come VER=Q
     'Tomorrow, can you come?'   [D]

12.1.1.1 Simple polar questions

The most basic type of polar question is the simple polar or YES/NO question. Simple polar questions do not function as imperatives, (i.e. interrogative sentences which have the illocutionary force of a command), as do polar questions in languages such as English (Sadock 1970). Simple polar questions may be positive or negative assertions, such the negated polar question in (3).

(3) *Bua   bi-em-odocka mar   no-ma-i   ér(a)=**ey**?*
     you.SG 2SG-IRR-reply thing DNR-far-GIV NEG=Q
     'Didn't you answer that?'   [TT]

Simple polar questions, such as 'Are you there?' as in (4), may be answered in the negative by the independent form *ogurá* 'no', or in the affirmative by *ya* 'yes' (a response word borrowed from Malay). However, the more traditional affirmative response to a simple polar question is a declarative (positive) clause, an echo of the verb in the question, as in (5).

(4) *Bua   erá   bi-en-ebah   no-ma=ey?*
     you.SG THM 2SG-DUR-live   DNR-far=Q
     'Are you there?'   [D]

(5) *Dif   erá   di-en-ebah=kef.*
     I   THM 1SG-DUR-live=here
     'I am here.'   [D]

12.1.1.2 Alternative questions

Alternative questions are a subtype of polar questions, but differ in that they provide the hearer with alternatives as to the right answer, implying some type of exclusivity (Sadock and Zwicky 1985:178). In coordinate clauses conjoined by the disjunctive conjunction *éra* 'DSJ', one or two alternatives may be offered. When two alternatives are offered, the final element of each clause is marked by *–ey*, such as the verb *(eb)ah* 'alive' and clause-final adverb *jog* 'already' in (6), or the nouns *mes* and *isnok* in the reduced conjoined clauses in (7).

(6)   *Osnok   no-ma-i   efena (eb)ah=ey éra ogos   jog=ey?*
       person   DNR-far-GIV spirit live=Q   DSJ die   already=Q
       'Is the person alive or is he already dead?'   [D]

(7)   *mes=ey   éra i-osnok=ey?*
       dog=Q   DSJ 3PL-person=Q
       '[Is it] a dog or (is it) human?'   [D]

If only one alternative is offered, the polar question marker may be cliticized to only the final element of the second conjoined clause, such that its scope covers both clauses, as in (8), or it may be attached to the final element of each clause, as in (9).

(8)   *Bua   bi-owha   éra ogur(a)=ey?*
       you.SG   2SG-leave DSJ no=Q
       'Are you leaving or not?'   [D]

(9)   *Dif di-osok jig taksi no-kef   jef=ey, éra gur(a)=ey?*
       I   1SG-ride LOC taxi   DNR-here DEON=Q DSJ NEG=Q
       'Should I go on this taxi or not?'   [D]

12.1.1.3 Tag questions

Tag questions are confirmation questions which carry a pragmatic expectation of affirmation, that is, agreement. They are composed of a positive clause, followed by the polar question marker *–ey* 'Q' cliticized to the negative adverb *éra* 'NEG', as in (10) and (11). The tag question, realized phonologically as [ɛɾéj], is separated by a pause from the clause which precedes it. Negatively biased questions, such as 'you haven't eaten, have you?', have not been observed.

(10)   *Bua   bi-ec   marowok guguy   jig pasar no-mis-i,   ér(a)=ey?*
       you.SG   2SG-buy vegetable all.at.once LOC market DNR-former-GIV   NEG=Q
       'You bought the vegetables all at once in the market, didn't you?'   [D]

(11)   *Eri-ej   no-ma-i   oduy ejgen rot   ohot,* [*Dif di-ok   dadin*
       they.PL-female   DNR-far-GIV front know about say   I   1SG-bear   1SGPOS

       efer   edegejg   nog-i-d(a)-i,   ér(a)=ey?]
       child   match.up REL-VIS-up-GIV   NEG=Q
       'The women wonder, "I (can) have a child similar to the one up there, can't I?"'
       (indirect quote)   [T29]

12.1.2 Information questions

Information type questions signal a desire on the part of the speaker to gain information using specific lexical interrogative forms for requesting information and are not marked with the polar question marker. Interrogative words (§4.4) are not obligatorily placed in clause-initial or clause-final position, as is common in some SVO languages, but remain "in situ", taking the position of the clausal element under question. The emphatic status of a question is indicated with an attitude marker cliticized to the clause-final element (§12.5) rather than with intonation or word order changes as in languages such as English. To make prominent the question word as subject/topic, it may be marked with the thematic marker *erá* 'THM'.Verbs in information questions may be marked with verbal inflections for causative *er-* or durative *en-*, but inflection with *em-* 'IRR' has not been observed.

12.1.2.1 Human entity

To request information about the identity of a human entity (i.e. a person), the question word *ida* 'who' is used. It replaces a proper noun, which may be the predicate of a non-verbal clause, as in (12) and (13), the object argument, as in (14), the subject/topic, as in (15), or the object of a preposition, such as *skod* 'to' in (16).

(12)   *Bi-owoka **ida?***
        2SG-name who
        'What is your name?'   [D]

(13)   *Bua   buwun   eb-dina   erá   **ida?***
        you.SG 2SGPOS 2SG-grandpar. THM   who
        'You your ancestor is who?'   [D]

(14)   *Yua   yi-oduy   os-os   rot   esha ni   dif di-edesk(a)*
        you.PL 2PL-front move.horiz.-RED   about   from for I   1SG-release

        ***ida**   ni   yua?*
        who   for   you.PL
        'You want that I release who for you?'   [TT]

(15)   ***Ida**   noga esha   or   mod jig=kef?*
        who   REL   from   build   house LOC=here
        'Who was [the one] who afterwards built a house here?'   [D]

(16)   *mif   mi-eyja skod **ida**   tas=o?*
        we.PL 1PL-go   to   who   again=EMP
        'we [should] go to who else?'   [TT]

The question word *ida* 'who' and the indefinite pronoun *ida,* glossed as 'whoever' in (17), are not distinguished*,* a common circumstance cross-linguistically.

(17)   **Ida**   *noga*   *i-oduy*   *os-os*   *ni*   *orot*   *eri-a.*
        who   REL   3PL-front move.horiz.-RED   for   go.with they.PL-PGE
        'Whoever wants to (can) go along with them.'   [D]

12.1.2.2 Non-human entity

To ask for information about a non-human entity, typically an inanimate object, the question word *midá* 'what' or phrase *mar midá* 'what thing' is used. The question word or phrase may occur as subject, as in (18), as object, as in (19) and (20), the subject/topic of a non-verbal clause as in (21), the complement of a verbal preposition (22), or alone as a response, like an interjection, as in (23).

(18)   *Mar*   **midá**   *éysaha*   *jig=kef?*
        thing   what   reach   LOC=here
        'What's happening here?'   [D]

(19)   *Yoga*   *y-en*   **midá**   *noga*   *esebra*   *no-ma-i*?
        you.DU   DU-do   what   REL   continuous DNR-far-GIV
        'You (two) did what all the time then?'   [T23]

(20)   *Bua*   *bi-echa*   *mar*   **midá**
        you.SG   2SG-look.for thing   what
        'What are you looking for?'   [D]

(21)   **Midá**   *erá*   *no-ma-i=o?*
        what   THM   DNR-far=EMP
        'What is that?!'   [D]

(22)   *Mif*   *mi-eyta*   *mar*   *okum*   *okuk*   **midá**   *gug*   *ergog*   *no-kef=o?*
        we.PL   1PL-take thing   heavy   like   what   to   they.PL DNR-here=EMP
        'We did something serious like what to these two?'   [T23]

(23)   *Tuan,*   **midá?**
        mister   what
        'Mister, what [do you want]?'   [TT]

12.1.2.3 Quantity questions

A numeral classifier prefix, such as *or-* in (24), and the bound quantifier root *–aha* 'QUAN' form an interrogative quantifier, which expresses the notion 'how many' or 'how

much'. It may occur in the position of a quantifier, modifying a head noun, such as *eraha* modifies *owos* in (25) and *ergaha* modifies *efef* in (26), or it may function as a non-verbal predicate, as in (27).

(24)   *Mes   efega   or-i-(a)ha?*
        dog   ANIMAL   NUM:7-?-QUAN
        'How many dogs (are there)?'   [D]

(25)   *Bua   bi-eyta mesogun owos   er-aha?*
        you.SG 2SG-take papaya   produce NUM:4-QUAN
        'You took how many papaya fruits?'   [D]

(26)   *Bua   bi-eyja jig   maekena efef   erg-aha   jig ari   erg-es?*
        you.SG 2SG-go LOC   garden   instance NUM:1-QUAN LOC week NUM:1-one
        'You go to the garden how many times in one week?   [D]

(27)   *Eri   i-aksa   erá   i-erg-aha?*
        they.PL 3PL-tall THM   3PL-NUM:1-QUAN
        'The tall ones are how many?'   [D]

To request information about the number of times an event occurred, the temporal quantity word *cergaha* 'how many times' is used, replacing a temporal phrase, as in the temporal frame in (28).

(28)   **C-erg-aha,**   *bua   bi-eyja jig   Manokwari?*
        ORD-NUM:1-QUAN   you.SG 2SG-go LOC   Manokwari
        'How many times did you go to Manokwari?'   [D]

12.1.2.4 Time questions

The question phrase (*mona*) *echa* (day away.from) 'when' occurs in the position of a temporal adverbial, as in (29), or the attributive part may occur alone, following a peripheral argument in an intransitive clause, as in (30).

(29)   *Bua   bi-en   mona echa?*
        you.SG 2SG-come day   when
        'You came when?'   [D]

(30)   *Ofa   en   fen   Jakarta echa?*
        s/he   come from Jakarta when
        'He came from Jakarta when?'   [D]

12.1.2.5 Manner questions

The manner question word *tínefa* 'how' is used to express a question about the manner in which an event occurred. It takes the clausal position of manner adverbs, that is, it occurs immediately following an intransitive verb, as in (31), or following the object of a transitive verb, as in (32) and (33).

(31)   *Bua   bi-ecira   **tínefa**,   erogá bi-éysaha jig no-kef   nes-is-a?*
        you.SG 2SG-walk   how   hence 2SG-reach   LOC DNR-here   quickly-RED-PGE
        'How did you travel, so you got here so fast?'   [D]

(32)   *Bua   bi-og   mar   efeyu   **tínef(a)**=i=o?!*
        you.SG 2SG-gouge thing   patterned   how=PROT=EMP
        'How did you write the writing (words)?!'   [D]

(33)   *Dif di-engit   mar   no-ma-i   **tínef(a)**=i=o?*
        I   1SG-make thing DNR-far-GIV how=PROT=EMP
        'How did I do that?!'   [D]

12.1.2.6 Location questions

To ask for information about a location, the question word *hádefa* 'where' is utilized. Its clausal position is the same as locative adverbs or adverbials, as in (34) and (35). It may also take the position of a locative argument, such as the complement of the preposition *fen* 'from' in (36).

(34)   *Dif dadin   mok   ah **hádefa**?*
        I   1SGPOS bowl lie where
        'I my bowl is where?'   [D]

(35)   *Buwun m-ok-esa   erá   en-ebah   **hádefa**?*
        2SGPOS NR-sib.s.s.-yg THM DUR-live where
        'Your younger brother is where?'   [T7]

(36)   *bua   bi-eyta mowuj no-kef   fen   **hádefa**?*
        you.SG 2SG-take pole   DNR-here   from   where
        'from where did you get this pole?'   [D]

A few speakers use the location question word *mayda* 'where', a fused phrase composed of the alienable noun *mow* 'land', plus the classificatory verb *ah* 'lie' and the human question word *ida* 'who'. The location question form *mayda* has not been observed to

function adverbially, but must occur as the complement of the generic preposition *jig,* as in (37) and (38).

(37)   *Ofa   eyja   jig   **mayda**?*
        s/he   go   LOC   where
        'Where did he go?'   [D]

(38)   *Bua   bi-esah   mitow   jig   **mayda-i**?*
        you.SG   2SG-put   machete   LOC   where-PROT
        'Where did you put the machete?' (its not where it should be)   [D]

12.1.2.7 Identity questions

The demonstrative pronoun *nef* 'which' may function as a question word to express the identity question 'which one'. It may stand in the position of the head noun, such as the subject/topic of a nonverbal clause, as in (39), in position of the nominal predicate, as in (40), or as object of a verb, as in (41).

(39)   ***Nef-a***   *e-noga   buwun?*
        which-PGE   FOC-REL   2SGPOS
        'Which is [the one] that is yours?'   [D]

(40)   *Buwun   e-**nef**-o?*
        2SGPOS   FOC-which-EMP
        'Yours is which one?'   [D]

(41)   *Bua   bi-eyta   **nef**   gug mek   no-kef?*
        you.SG   2SG-take   which   to   pig   DNR-here
        'You gave which one to the pig?'   [D]

As the modifier of a nominal, such as *moroj* in (42), it narrows the referential scope of the noun in question, that is, it asks the hearer to select a particular referent from several possibilities. As the modifier of the adverbial, *kus* 'short span of time' in (43), the demonstrative pronoun *nef* requests the identity of a specific 'span of time'.

(42)   *Bua   bi-ewer   jig   moroj **nef**-a?*
        you.SG   2SG-pass   LOC   path   which-PGE
        'You passed on which path?'   [D]

(43)   *Bua   bi-en   kus   **nef**-a?*
        you.SG   2SG-come   short.span   which-PGE
        'When are you coming?'   [D]

When *nef* 'which' is the object of a spatial preposition, such as the generic spatial preposition *jig* in (44), it may ask the identity of a location, that is, 'where'.

(44)   *Bua   bi-esah mar   no-ma-i   jig   **nef**-a?*
        you.SG 2SG-put thing DNR-far-GIV LOC   which-PGE
        'At which (place) did you put the thing?'   [D]

12.1.2.8 Reason questions

The prepositional phrase *rot midá* (about what) expresses the reason question 'why'. The reason question phrase occurs in the clausal position of peripheral arguments, that is, it may follow the object in a transitive clause, as in (45), or the verb or verb-phrase adverb in an intransitive clause, as in (46). In a non-verbal clause, it may function as the non-verbal predicate, as in (47). In a serial verb construction, it follows the final element of the construction, as in (48).

(45)   *Bua   bi-os   mofun   no-ma-i   **rot   midá?***
        you.SG   2SG-sever vine   DNR-far-GIV about what
        'Why did you cut that vine?'   [T23]

(46)   *Yua   yi-eker jig=kef   rahu   **rot   midá?***
        you.PL   2PL-sit LOC=here long.time about what
        'Why did you stay here a long time?'   [D]

(47)   *No-ma-i   **rot   midá?***
        DNR-far-GIV about what
        'Why is that?'   [D]

(48)   *bi-ahac mar   no-ma-i   ekrer **rot   midá?***
        2SG-tie thing DNR-far-GIV loose about what
        'why did you tie that [so] it is loose?'   [D]

If the question word *midá* modifies the generic noun *mar* 'thing' in the prepositional phrase *rot mar midá* 'about what thing', it requests information about the identity of a non-human entity, rather than asks 'why' (cf. §12.1.2.2).

12.1.3 Reprimand rhetorical questions

A rhetorical question is one in which the answer is assumed to be known by the hearer and thus, no answer is expected, but rather it serves to intensify an assertion (T. Payne 1997:354). Rhetorical questions which have the perlocutionary effect of a strong rebuke, that is, as a pejorative expression, have a distinctive structure. They are composed of an interrogative phrase occurring in sentence-initial position, such as the rhetorical reason

question phrase *tínefa erogá* (how hence), glossed 'WHY' or 'how is it so (that)', as in (49) and (50), the rhetorical purpose question phrase *tínefa ni* (how for) 'for what (purpose)', as in (51), or the rhetorical time question phrase *echa erogá* (when hence) 'WHEN', as in (52). Unlike sentences which are introduced by the conjunction *erogá* 'hence', no pause separates the interrogative phrase from the clause or sentence which follows. The intonation contour begins high and drifts downward throughout the clause.

(49)   ***Tínefa   erogá*** *bua   bi-oksomus   fen   dif?!*
        how   hence you.SG 2SG-return   from I
        'WHY did you return without me?!'
        (you shouldn't have returned without me!)   [D]

(50)   ***Tínefa   erogá*** *mester   no-ma-i   ecicka   ebri-a?!*
        how   hence plate   DNR-far-GIV drop   crack-PGE
        'WHY did the plate drop [so] it cracked?!'   [D]
         (the plate shouldn't have dropped so it cracked!)

(51)   ***Tínefa   ni*** *bua   bi-engit   mar   no-ma-i?!*
        how   for you.SG 2SG-make thing DNR-far-GIV
        'WHY did you do that?!'
        (whatever the reason, what you did was wrong!)   [D]

(52)   ***Echa erogá*** *bua   bi-em-en   keradi   tas?!*
        when hence you.SG 2SG-IRR-do work   again
        'WHEN are you going to work again?!'   [D]
        (you should be working now!)

A reason question with the question phrase *rot midá* (about what) occurring in clause-final position, may also indicate a protest or reproach, though mild by comparison to a rhetorical reason question phrase such as *tínefa erogá*. Although it has the structure as a reason information question, with the phrase *rot midá*, the perlocutionary effect is rebuke. The interpretation is contextually determined, as is suggested in parenthesis below the English gloss in examples.

(53)   *Bua   bi-esma   dadin   bar   **rot   midá**?*
        you.SG 2SG-take.by.force 1SGPOS ball   about what
        'You snatched my ball away for what reason?'
        (you shouldn't have snatched my ball away.)   [D]

(54)   *Bua   bi-er-en   mar   no-ma-i   esir **rot   midá***?
        you.SG 2SG-CAUS-do thing DNR-far-GIV fall about what
        'You made that thing fall for what reason?'
        (You shouldn't have made that thing fall.)   [D]

(55)   *Bua   bi-ekinga dadin   miyes   **rot   midá***?
        you.SG 2SG-tear 1SGPOS clothes about what
        'Why did you tear my clothes?'   [D]
        (you shouldn't have torn my clothes.)

12.1.4 Indirect questions

Indirect questions typically are embedded as complements of utterance, modality and perception predicates (§10.2.2). They may have the form of indirect polar questions or the form of indirect information questions.

Indirect polar questions, expressing an 'if/whether' interpretation, are marked clause-finally with the polar question enclitic *–ey* 'Q' and frequently have a structure related to the structure used in disjunctive coordination with a reduced predicate in the final clause (§11.3.6), as in (56) or (57). Indirect questions are enclosed in brackets.

(56)   *Ofa erá   noga ogá   ojga   rot   ohot* [*dif   di-engit   mar*
        s/he THM   REL speech originated   about say   I   1SG-make thing

        *noga oskur   jog=**ey***   éra   *gur(a)=**ey***].
        REL bad   already=Q   DSJ   NEG=Q
        'He is [the one] who decides whether/if I did something which was bad or not.'
        (speech originated = decide) (indirect quote: polar question)   [D]

(57)   *i-ejgen   rot*   [*ofom jog=**ey***   éra   *gur(a)=**ey***].
        3PL-know   about   ripe already=Q DSJ   NEG=Q
        '(they) know whether/if it is ripe or not.' (indirect quote: polar question)   [D]

Indirect information questions contain a question word, such as *tínefa* 'how', as in (58), *ida* 'who', as in (59), or *hádefa* 'where' as in (60).

(58)   *esij   rot*   [***tínefa*** *i-osnok   i-eyta   eteyj-ah noga efen-ir-ah*].
        talk.about about   how   3PL-person 3PL-take eye-live REL   new-?-INTS
        (it) explained how do people get life which is very new?
        (it) explained how people get life which is very new. (indirect quote:
        information question)   [TT]

(59)   *ergog   y-ofof   y-er-em-enin-ima*   *esha   ni   y-ejgen   rot*   [**ida**
          they.DU   DU-run   DU-CAUS-RECIP-measure   from   for   DU-know   about   who

          noga   ofof   owas].
          REL   run   strong
          'they ran competing against each other in order to know, who was [the one] who
          ran strong(er)?'
          'they ran competing against each other in order to know [the one] who ran
          strong(er).' (indirect quote: information question)   [D]

(60)   *Dif di-esisga   bua   rot*   [*buwun   mekew   erá   ebah   **hádefa***].
          I   1SG-ask   you.SG   about   2SGPOS   father   THM   live   where
          'I asked you where does your father live.'
          'I asked you where your father lived.' (indirect quote: information question) [D]

12.2 Imperatives

Imperative clauses are used to influence the actions of addressees, such as giving orders, making suggestions or making requests (Sadock and Zwicky 1985:160). Imperative clauses in Moskona typically require an explicit second person pronoun, such as *bua* 'you.SG', *yoga* 'you.DU' or *yua* 'you.PL'. All imperatives, except simple commands, are marked grammatically by an clause-final adverb, which occurs in a fixed position at the end of the sentence. Intonation contour is not a definitive criteria, as an imperative clause may have the same final intonation contour as a declarative clause.

Positive imperatives may take the form of a simple command or may be expressed as a mitigated imperative. Negative imperatives or prohibitives have a single form and will be discussed separately as a matter of negation in §12.7.5. Utilization of clause-final adverbs or particles to signal imperative does not appear to be a characteristic of Bird's Head languages, although a few languages, such as Maybrat (Dol 1999:207) and Abun (Berry and Berry 1999:117), have been noted to signal imperatives with a clause-final element.

12.2.1 Simple commands

Those positive imperatives which are simple commands are not structurally different than declaratives, as both have the SVO word order and are unmarked grammatically. However, declarative sentences allow stative verbs, whereas imperatives do not. Commands may also be distinguished from declaratives through a greater degree of intensity or loudness. All commands involve second person and are immediate future, thus no aspectual or mode markers occur on verbs in imperative clauses. Clauses which are imperative may be simple clauses with simple predicates, such as the compound *eyeg-ejga* 'watch' in (61) or *er-oduy* 'lead' in (62), or they may be serial verb constructions, such as the simultaneous SVC in (63).

(61) *Yua   yi-eyeg-ejga   dif!*
you.PL   2PL-look-graze I
'Watch me!'   [D]

(62) *Yoga   y-er-oduy   ofa!*
you.DU   DU-CAUS-front s/he
'You (two) bring him!' (cause to front = lead s.o.)   [TT]

(63) *Bua   bi-ohot mar   bi-er-omnen!*
you.SG   2SG-say thing 2SG-CAUS-repeat
'Say it again!' (lit. you say thing repeat)   [D]

12.2.2 Mitigated imperatives

Mitigated imperatives are imperatives which are not direct commands, but allow the speaker to obliquely affect the actions of the hearer, through suggestion, entreaty, admonishment (adhortative) or permission. In three of the four types of mitigated imperatives, adverbs which have other primary functions signal a type of mitigated imperative. The fourth type, adhortative, is a construction utilizing a purpose clause.

12.2.2.1 Suggestions

Suggestions, a type of soft command, are signaled with the clause-final adverb *jef* 'DEON', placing the hearer under some sort of obligation to comply. As in:

(64) *Bua   bi-ok   medew   mesew   no-ma-i   **jef**-o!*
you.SG   2SG-bear sago.meal leaf.container DNR-far-GIV DEON-EMP
'You should bring the sago leaf container!' (its needed now)   [T24]

(65) *yua   yi-osok   i-en   **jef***
you.PL   2PL-climb.up VIS-HITHER   DEON
'you (all) should come up here'   [T23]

(66) *bua   erá   bi-osok   jig   merga=kef   **jef**!*
you.SG   THM   2SG-climb.up   LOC   wood=here   DEON
'you should climb up in the tree!'   [T23]

The focus adverb *gijga* 'only' (§4.1.2.1.4) may function informally to form a soft command, taking the place of the clause-final adverb *jef* 'DEON'. It is not separated from the main clause by a pause, but may be uttered with greater intensity to express urgency. In clauses with a second person subject, context determines whether *gijga* 'only' has an adverbial function, that is, modifies the predicate, or marks a suggestion, as in examples (67 – 69).

(67)   *Bua   bi-eyta   mar   no-ma-i   gug   dif   **gijga***!
        you.SG   2SG-take   thing   DNR-far-GIV   to   I   only
        (You should) give that to me!'   [D]

(68)   *Bua   bi-eker   owoh   ursa(a)   **gijga***
        you.SG   2SG-sit   solid.interior   spot   only
        '(you should) stay in this exact location!'   [D]

(69)   *Yua   yi-eyta   mar   erg-es-mes   no-ka-i   **gijga***!
        you.PL   2PL-take   thing   NUM:1-one-RED   DNR-near-GIV   only
        'You (all) should take just one of these!'   [T27]

12.2.2.2 Entreaties

Entreaties or polite commands are indicated by the clause-final adverb *roga* 'first', with a meaning analogous to 'please'. When *roga* signals a polite command, it may, as in (70) and (71), or may not, as in (72), be preceded by a pause.

(70)   *bua   bi-or   mefs(a)   ofor   bi-er-eska   tas,   **roga***.
        you.SG   2SG-hold   salt   dehydrated   2SG-CAUS-sprinkle   again   first
        'sprinkle in salt again, please.'   [D]

(71)   *Bua   bi-osok   u-en   bi-esta   mok   erg-em,   **roga***.
        you.SG   2SG-climb.up   NONVIS-HITHER   2SG-suck   pandanus   NUM:1-CST   first
        'Come up (to) here [and] eat pandanus, please.'   [T20]

(72)   *Yua   yi-or   buku[59]   no-kef   hah   **roga***.
        you.PL   2PL-hold   book   DNR-here   shortly   first
        '(You all) use this book for the time-being, please.'   [D]

12.2.2.3 Permissive

The clause-final adverb *deke* 'may' or 'be permitted' serves a marker to indicate permission, and may occur as an asserted proposition, as in (73), (74) and (75), or in an interrogative form, as in (76). It has not been observed to co-occur with imperative clause or those which have been negated.

(73)   *Bua   bi-owha   **deke***.
        you.SG   2SG-leave   may
        'You may leave.'   [D]

---

[59] The word *buku* 'book' is a loan from Malay.

(74)   *Bua   bi-orot   dif   **deke***.
        you.SG 2SG-go.with I   may
        'You may accompany me.'   [D]

(75)   *Eri   noga i-os-os   ni   i-ot-ahobta*
        they.PL REL   3PL-move.horiz.-RED   for   3PL-stand-stare

        *televisi   erá   **deke***.
        television THM   may
        'They who want to watch television may.'   [D]

(76)   *Dif   di-orot   bua   **deke**=ey?*
        I   1SG-go.with you.SG may=Q
        'May I accompany you?'   [D]

12.2.2.4 Adhortative

Adhortatives are formally distinct from regular imperatives, in that they are expressed through an adhortative construction (§11.2.3), composed of the verb *ohan,* with a meaning like 'join' or 'be together', followed by the non-spatial preposition *ni* 'for', introducing a subordinate clause. The main clause always has a second person subject, such as *yua* 'you.PL' in (77), and the subordinate clause, always has a first person subject, such as the first person plural, indicated by the prefix *mi-* '1PL' in (78). This construction is not found in Moskona's closest genetic relative Meyah, which uses a combination of verbal affixes to produce hortatory sentences (Gravelle 2004:339), nor is it seen in central Bird's Head languages like Abun (Berry and Berry 1999:118) which signals hortative mood with a clause-final particle.

(77)   *Yua   yi-ohan ni mif   mi-ogow osnok   erg-es   noga ofogog*
        you.PL 2PL-join for we.PL 1PL-chop person   NUM:1-one REL   evil

        i-da-i.
        VIS-up-GIV
        'Let's chop (kill) somebody up there who is evil.'   [D]

(78)   *Yua   yi-ohan ni mi-en   maeken(a).*
        you.PL 2PL-join for 1PL-do   garden
        'Let's do (work in) the garden.'   [D]

12.3 Explicit performatives

Explicit performatives are sentences in which the specific act performed (such as requesting, reminding, or warning) is expressed by the verb in the sentence (Sadock and

Zwicky 1985:155). Although the structure of performatives is the same as declarative sentences, explicit performatives typically have first person subjects and second person indirect objects (i.e. goals), which may be introduced by the prepositions *gug* 'to', *jug* 'against' or *kerenga* 'upon'. The predicates of explicit performatives may be simple verbs, such as *oyom* 'request' as in (79), or utilize idiomatic expressions, such as the expressions *os efen(a kerenga)* (move.horizontally spirit upon) 'remind' in (80) or *os efen(a jug)* (move.horizontally spirit against) 'admonish' in (81).

(79)   *dif **di-oyom**   gug bua   esha ni bi-ec-ec   bi-oduy   rot..*
        I   1SG-request to you.SG from for 2SG-press.on-RED   2SG-front about
        'I request of you in order that you be patient about...'
        (press on front = be patient)   [TT]

(80)   *dif **di-os**   efena   kerenga yua   rot   ohot yua   erá*
        I   1SG-move.horiz. spirit   upon   you.PL about say   you.PL THM

        yi-okuk   mod   erg-es
        2PL-like   house NUM:1-one
        'I remind you, "You are like a house"' (move horizon. spirit = remind) [TT]

(81)   *Dif **di-er-os**   efen(a) jug   yua   okuk dif*
        I   1SG-CAUS- move.horiz. spirit   against you.PL like   I

        di-os-efen   jug   dadin   efer
        1SG-move.horiz. against 1SGPOS child
        'I admonish you like I admonish my child'   [TT]

12.4 Imprecatives

Imprecatives or curses, which are syntactically a subtype of declarative, are negatively emotional in tone and carry an optative (wish) connotation. They are unmarked syntactically, but uttered with greater intensity than regular declaratives. In (82) the human noun *orna* 'man', with a focus on the feature of large size, modifies *mar* 'thing' to form a phrase meaning 'huge thing (creature)' or *Mod Ari* (house Sunday) 'church' in (83), symbolizing a spiritual power, is the supernatural basis of the curse.

(82)   *Mar orna ed   bua!*
        thing man   strike you.SG
        '(May) a huge creature get you!'   [D]

(83)   *Mod Ari   ed   bua!*
        house Sunday strike you.SG
        '(May) the church strike you!'   [D]

There are a few imprecatives which provide evidence that in earlier times verbs were inflected with pronominal prefixes marking both subject and object. These imprecatives which are syntactically frozen have the clause structure S s-o-V O. In (84) and (85), the verb *ed* 'strike' is inflected with ø '3SG' (a null morpheme), indicating the third person singular subject, and *bi-* '2SG' indicating the second person singular object. The free personal pronoun *bua* 'you.SG' also occurs as a possible concession to current argument referencing.

(84)　*Meki　　bi-ed　　bua!*
　　　　cassowary 2SG-strike you.SG
　　　　'(May) the [mythical people-eating] cassowary get you!'　　　　[D]

(85)　*Meg　　　　bi-ed　　bua!*
　　　　large.creature 2SG-strike you.SG
　　　　'(May) a large creature get you!'　　　　[D]

12.5 Attitude marked sentences

There are two attitude markers, protesting mood marker and emphatic mood marker, which indicate the (rational or emotional) point of view or attitude taken by the speaker toward the proposition. The two markers are not mutually exclusive, in that they may co-occur in same clause, nor do they indicate sentence types, as they may occur with any major sentence type (declarative, interrogative or imperative). A third marker which indicates speaker uncertainty differs from the mood markers, in that it also marks a polar question, and its illocutionary force precludes occurrence in imperative clauses.

The protesting mood marker *-i* 'PROT' indicates the speaker's non-acceptance of a proposition, which may be interpreted as complaining, protesting or even unbelief. When *–i* 'PROT' is attached to a root which has a final /a/ segment, the /a/ is elided, yielding forms such as *gura-i* in (86) and *mida-i* in (87), realized as [guɾí] and [midí] respectively. It is distinguished from the suffix *–i* 'GIV' (§5.3.3), which attaches to deictics to signal known information, in that the protesting mood marker is typically cliticized to the final element of the sentence, which may include a variety of different word classes, such as the quantifier verb *etew* in (88), the noun *mod* in (89), the adjectival verb *efeyu* in (90), or the intransitive verb *oksomus* in (91).

(86)　*Tiná　yua　　yi-em-eyta　mar　no-ma-i　　tin　gur(a)-**i**!*
　　　　but　　you.PL　2PL-IRR-take thing DNR-far-GIV also NEG-PROT
　　　　'But you didn't even do that!' (protesting)　　　　[D]

(87)　*okuk　no-ma-i　　rot　　mid(a)=**i**?*
　　　　like　　DNR-far-GIV about what=PROT
　　　　'its like that why?!' (protesting)　　　　[D]

(88)   *Dif   di-eteyj(a)   omg-omga   er-etew=**i***
        I   3PL-eye   blurred-RED   CAUS-much=PROT
        'I my eyes are increasingly blurry.' (complaining)   [T23]

(89)   *Ida   noga en-ebah   jig   mod=**i**-a?*
        who   REL   DUR-live   LOC   house=PROT-PGE
        'Who is [the one] that is in the house?' (protesting)   [D]

(90)   *Ida   erá   noga en-og   mar   efeyu=**i**=ey?*
        who   THM   REL   DUR-gouge   thing   patterned=PROT=Q
        'Who is the one who is writing the writing (words)?' (protesting and uncertain)
                                                                        [D]

(91)   *Bua   erá   Síus   noga bi-en-oksomus=**i**=ey?*
        you.SG   THM   Sius   REL   2SG-DUR-return=PROT=Q
        'Are you Síus [the one] who is returning?' (polar Q and unbelief)   [D]

The emphatic mood marker *–o* 'EMP', cliticized to the final element of a clause, intensifies a proposition, indicating a greater degree of emotional involvement by the speaker, as in (92).

(92)   *Mif   tin   mi-oduy   efef   rot   yua   romreg=**o***!
        we.PL   also   1PL-front   ache   about   you.PL   all=EMP
        'We also love you all!' (front ache = love)   [T9]

The emphatic mood marker conveys urgency when used with a request (93), a command (94) or a suggestion (95).

(93)   *Ekok, bua   mejuen,   bi-ofjig   yef=**o**!*
        father you.SG   crocodile   2SG-help   we.DU=EMP
        'Father, you are a crocodile, help us'   [T23]

(94)   *Bua   bi-eyeg=em(a)=**o**!*
        you.SG   2SG-look.at-far=EMP
        'You watch out!'   [T27]

(95)   *Bua   bi-er   medew   efer   jef=**o**!*
        you.SG   2SG-stir   sago.meal   child   DEON=EMP
        '(You should) stir the sago porridge!' (or it will burn)
        (sago meal child = sago porridge)   [T24]

When cliticized to a spatial deictic, such as the distal deictic *-mej* 'remote' in (96) or the nominalized directional clitic *eyja* 'THITHER' in (97), it intensifies the degree of distance.

When attached to a deictic which modifies a temporal element, such as the fused relative clause *nogumej* in (98), it indicates extended time.

(96)   *Yua   yi-en-owha=mej=o.*
        you.PL   2PL-DUR-leave=remote=EMP
        'You all are going far far away'   [T9]

(97)   *Yua   yi-ahrir   kuk   memeg(a) ogoh   m-eyj(a)=o.*
        you.PL   2PL-skirt   along   mountain   base   NR-THITHER=EMP
        'You (all) skirted along the base of the mountain way over there.'   [T25]

(98)   *Ofa   en   fen   Jakarta jig   mesta   nog(a)=u-mej=o.*
        s/he   come   from   Jakarta   LOC   moon   REL=NONVIS-remote=EMP
        'He came from Jakarta in a month long past.'   [D]

The mood markers *–i* 'PROT' and *-o* 'EMP' have been observed to co-occur in information questions, attaching to the clause-final element, such as the question words *tínefa* in (99), *ida* in (100), or *midá* in (101), or attached to the demonstrative pronoun *noka* in (102), yielding questions which express strong non-acceptance or unbelief.

(99)   *Bua   bi-engit   mar   tínef(a)=i=o?*
        you.SG   2SG-make   thing   how=PROT=EMP
        'How are you doing that?!' (I can't believe it)   [D]

(100)   *Bua   buwun   mosu   owoka   id(a)=i=o?*
        you.SG   2SGPOS   mother   name   who=PROT=EMP
        'You your mother (her) name is what?!' (unbelief)   [D]

(101)   *Mid(a)=i=o?!*
        what=PROT=EMP
        'What?!' (non-acceptance)   [D]

(102)   *Mes-ir   no-kef   i-obra   midá   no-ka=i=o?*
        dog-PL   DNR-here   3PL-bark.at   what   DNR-near=PROT=EMP
        'What are these dogs barking at now?!' (I don't like this!)   [T24]

A speaker may indicate uncertainty about an assertion through the use of a polar question marker *–ey* 'Q', attached to the final element of a clause. Clauses marked for uncertainty have the formal structure of a polar question (§12.1.1), but have the illocutionary force of a declarative. The enclitic *–ey* 'Q' may indicate uncertainty, as in (103), or mark a sentence as a conjecture, as in (104). Context determines whether a question is being asked or whether the speaker is making a dubitative statement, such as *okuk yua yuyun-ey* 'like you might own (them)' in (105). In coordinate clauses conjoined by *éra* 'DSJ', the

polar question marker attaches to the final element of each clause, such as the locative *jig=kef* and negative adverb *gurá* in (106).

(103)   *Smen,   bua   erá   noga bi-eyta dadin   miyes=ey.*
      perhaps you.SG   THM   REL   2PL-take 1SGPOS clothes=Q
      'Perhaps, you might be [the one] who took my clothes.'   [D]

(104)   *Eri   i-et   morgik, erogá   i-en-orkoh   rot   no-ma-i=ey.*
      they.PL 3PL-eat matoa   hence   3PL-DUR-hoarse about DNR-far-GIV=Q
      'They ate matoa, so (they) might be hoarse because of it.'   [D]

(105)   *Yua   yi-ec   mar no-ma-i   m-ejg(a)-im   okuk   yua*
      you.PL   2PL-press.on   thing DNR-far-GIV RECIP-graze   like   you.PL

      yuyun=ey.
       2PLPOS=Q
      'You (all) touched those things in rapid succession like you might own (them).'
      (press on graze e.o. = rapid succession)   [D]

(106)   *Smen,   mif   mi-oksomus jig=kef=ey   éra gur(a)=ey.*
      perhaps we.PL 1PL-return   LOC-here=Q   DSJ NEG=Q
      'Perhaps, we might return here or [perhaps] we won't.'   [D]

12.6 Interjections

Interjections are words which are unproductive in the sense that they don't enter into syntactic relationships with other word classes (Crystal 1997:200), may be complete utterances in themselves (Schachter 1985:58) and are generally informal or colloquial in usage. Interjections may be composed of collapsed phrases, such as *ofahmej* [oɸáxmɛd͡ʒ], meaning something like 'it's not important' or 'forget it', as in (107), or *margeym* [márɡem], with a meaning like 'alright' or 'ᵒkay', as in (108). They may also be single syllables with no lexical meaning, such as *ey* 'hey' used for gaining attention, as in (109), or *wah* [wax] 'ah' an expression of surprise or shock with a negative connotation, as in (110).

(107)   ***Ofahmej****! No-ma-i   em-ok   owoka gug mif   éra.*
      forget.it   DNR-far-GIV IRR-bear name   to we.PL NEG
      'Forget it! It doesn't carry a name (have importance) to us.'   [TT]

(108)   ***Margeym.*** *Dif di-of   merga kosk-amok(a)   nom.*
      alright   I   1SG-fell wood   well-RED   VER
      'It's alright. I am very well able to chop down the tree.'   [D]

(109)   ***Ey!*** *Yoga   y-osok   i-en   jef*
       hey you.DU DU-climb.up VIS-HITHER DEON
       'Hey! (You two should) come up here'   [D]

(110)   ***Wah****! Tínefa   erogá bua   bi-egej(a)   mek   no-ma-i?*
       ah   how   hence you.SG 2SG-slit.open pig   DNR-far-GIV
       'Ah! WHY did you slit open the pig?' (you shouldn't have)   [T27]

12.7 Negation

Negation in Moskona is confined to sentential or standard negation, that is, it is confined
to the negation of a clause or sentence. Constituent negation, which is negation of
particular constituent of a clause, such as negation of the constituent 'people', the subject
of the clause 'no people finished on time', has not been observed. In addition, inherently
negative indefinites, with meanings such as 'nothing', 'none' or 'no one', are entirely
absent, such that negation of the predicate, that is, clausal negation, is required to negate
quantifiers. In (111), the clause may have the additional interpretation 'not many people
accompanied me.' Alternatively, if the negation of a quantifier is desired, the main
predicate may be relativized and the verbal quantifier may be negated, as in (112) in
which the verb *orot* 'go with' is relativized, and the verbal quantifier *ognunui* 'many' is
negated.

(111)   *I-osnok   i-ognunui i-em-orot   dif **éra***.
       3PL-person 3PL-many 3PL-IRR-go.with   I   NEG
       'Many people didn't accompany me.' or
       'Not many people accompanied me.'   [D]

(112)   *I-osnok   [noga i-orot   dif] i-em-ognunui **éra***.
       3PL-person REL   3PL-go.with   I   3PL-IRR-many NEG
       'The people who accompanied me were not many.' or
       'Not many people accompanied me.'   [D]

Declarative and imperative negation are distinguished by the use of *éra* 'NEG' to indicate
negation of an assertion (declarative clause), as in (113) and by the use of *edak*
'NEG.DEON' to signal a prohibitive (i.e. negative imperative), as in (114). To indicate
negation of probability, the negative adverb *néesa* 'not yet' (115) is employed. The
independent negative word *ogurá* (§12.7.6) may be used as a response, taking the place
of a negative clause.

(113)   *bua   bi-em-et   mar   **éra***
       you.SG 2SG-IRR-eat   thing NEG
       'you didn't eat (anything)'   [D]

(114)   *bua*   *bi-em-et*   *mar*   **edak**
     you.SG   2SG-IRR-eat   thing   NEG.DEON
     '(you) shouldn't eat'   [D]

(115)   *bua*   *bi-em-et*   *mar*   **néesa**
     you.SG   2SG-IRR-eat   thing   not.yet
     'you didn't eat yet'   [D]

12.7.1 Position of negative adverbs

Negative adverbs invariably occur in clause-final or sentence-final position, an areal feature of the languages of the Bird's Head (Reesink 2002c:245). Reesink (2002c:247) suggests that the clause-final position of the negator has its origins in an earlier time in which the SVO languages of the Bird's Head had the more typical Papuan SOV order, placing the negative adverb adjacent to the verb (cf. also §4.1.2.2.2). As a clause-final constituent, the negative adverb follows an object argument, such as *éra* follows *mar nomi* in (116), the negative adverb follows verb-phrase adverbs, such as *edak* follows *tusus* in (117), or the negative adverb follows peripheral arguments, such as *néesa* follows *jig mod* in (118).

(116)   *eri*   *i-em-eg*   *mar*   *no-ma-i*   **éra**.
     they-PL   3PL-IRR-hear   thing   DNR-far-GIV   NEG
     'they didn't hear that'   [D]

(117)   *Bua*   *bi-**em**-ecira*   *tusus*   **edak**.
     you.SG   2SG-IRR-walk   to.and.fro   NEG.DEON
     'You shouldn't wander around.'   [T29]

(118)   *yef*   *y-**em**-osok*   *jig*   *mod*   **néesa**.
     we.DU   DU-IRR-climb.up   LOC   house   not.yet
     'we won't yet go up to the (main) house.'   [T23]

In a non-verbal clause, the negative adverb immediately follows a nonverbal predicate, such as the adverb *éra* 'NEG' follows the adverb *decir* in (119).

(119)   *Mar*   *no-ma-i*   *decir*   **ér(a)**   *nom*.
     thing   DNR-far-GIV   correct   NEG   VER
     'That's not really correct.'   [D]

Only post-negative clause-final adverbs (§4.1.2.2.3), such as *nom* 'VER' in (119) and (120), and the polar question enclitic *–ey* 'Q', as in (121), may follow the negative adverb in a clause.

(120)   *Mow   no-ma-i   em-esen **ér(a)   nom**.*
         land   DNR-far-GIV   IRR-far   NEG   VER
         'That place really isn't far.'   [D]

(121)   *Bua   bi-em-odocka   mar   no-ma-i   **ér(a)=ey?***
         you.SG   2SG-IRR-reply   thing   DNR-far-GIV   NEG=Q
         'Didn't you answer that?'   [TT]

12.7.2 Scope of negation

The strategy employed to delineate the scope of negation in verbal clauses is morphological. All verbs which are within the scope of the negation are obligatorily inflected with the irrealis morpheme *em-* 'IRR', thus relegating verbs which are unmarked as outside the scope of the negation. The scope of negation in multi-clausal sentences or in clauses having complex predicates is therefore rarely ambiguous, as only affected verbs are marked.

In complex sentences in which one clause is subordinate to the other, the scope of the sentence-final adverb may cover either the main clause or the subordinate clause. Thus, the verb of the main clause may be affected, but the verb of the dependent clause may be unaffected or vice versa. For example, in (122) the affected verb *edegejga* 'match up' in the main clause is marked with *em-* 'IRR' and thus under the scope of negation, but the verb *eyj* 'toss' in the following subordinate clause is unmarked and unaffected. In (123) the verb of the dependent clause *eskijig* 'agree' is marked with *em-* and affected, whereas the verb *ah* 'lie' in the main clause is unmarked and unaffected. Similarly, in sentences which have an embedded clause, (e.g. complementation), the matrix verb, such as *ejgen* 'know' in (124), may be marked for irrealis, and so lie within the scope of negation, but the verb of the complement *ah* 'lie' be unmarked and unaffected.

(122)   *Jig no-kef   erá,   **em-edegejga**   ni   bua   bi-eyj   kertas   noga*
         LOC DNR-here   THM   IRR-match.up   for   you.SG   2SG-toss paper   REL

         *ebg-ibg(a)   ruruy   **éra**.*
         torn-RED   unrestricted   NEG
         'In this (place), it isn't appropriate for you to toss trash indiscriminately.'
                                                                           [D]

(123)   *ofa ofon   ebra ah ucur esebra,   esha ofa **em-eskijig éra**.*
         s/he 3SGPOS   head lie still   continuous   from   s/he IRR-agree   NEG
         'he his head was still, because he didn't agree.'   [T23]

(124)   *ofa ofaha*   **em-ejgen**   *rot*   [*merga orokec erá   ah jig   esisok*
         s/he 3SGRX   IRR-know   about   wood   large   THM lie LOC   EXPN

         eteyj(a)]   **éra.**
         eye   NEG
         'he himself doesn't know that a large piece of wood is in his own eye.' [TT]

In sentences composed of coordinate clauses (i.e. clauses of equal status), the scope of
negation extends only to the predicate of the clause in which the negator occurs. That is,
the scope of a sentence-final negator covers only the clause which it immediately follows.
For example, in the paratactic complement clause in (125), the scope of the negative
adverb *éra* 'NEG' extends only to the verb *et* 'eat' of the final clause, the matrix verb *ek*
'see' and the verb *et* 'eat' in the first clause of the complement being unaffected. For each
clause of coordinated clauses to be negated, each clause must have a negator and the verb
of each clause be marked with *em-* 'IRR', such as *éra* 'NEG' occurs at the end of each
clause in (126).

(125)   *kus*   *no-kef,*   *mif*   *mi-ek*   [*mohus erá, ofa et mok,   tiná*
         short.span DNR-here   we.PL 1PL-see   parrot THM s/he eat pandanus but

         mem ned   erá ofa   **em-et**   *mok*   **éra**.]
         bird   cockatoo   THM s/he   IRR-eat   pandanus   NEG
         'nowadays, we see [that] the parrot, he eats pandanus, but the cockatoo, he
         doesn't eat pandanus.'   [T5]

(126)   *eri*   *i-***em-en**   *maekena etew*   **éra,**   *dokun*   *i-***em-ok**   *mar*
         they.PL   3PL-IRR-do garden   much   NEG   and   3PL-IRR-bear   thing

         okum   **éra.**
         heavy   NEG
         'they didn't work in the garden a lot and didn't carry heavy things.'   [T21]

In complex sentences in which only one clause is negated is there possible ambiguity
regarding the scope of the negation. In these situations, contextual clues aid in
interpretation. In the narrative preceding the sentence in (127), two women have been
requested to ascend to the main house, thus the context points to an interpretation that the
scope of the negation covers only the main verb *edegejga* 'match up' or 'appropriate',
while the verb *osok* 'climb up' in the dependent clause falls outside of the scope of
negation.

(127)   *esha* **em-edegejg(a)** *ni yef y-em-osok jig mod* **néesa**.
        from IRR-match.up for we.DU DU-IRR-climb.up LOC house not.yet
        'because (it) isn't yet appropriate for us to ascend to the house.'   [T23]

The negation of an emotional-state construction, a type of complex predicate, requires that the irrealis marker attach to the verbal constituent of the construction, such as the verb *esis* 'hurt' in the construction *owos esis* 'skin hurt' in (128). Irrealis marking on the nominal constituent of the construction, such as *oduy* in (129), is grammatically unacceptable.

(128)   *Eri i-owos* **em**-*esis esebra edak.*
        they.PL 3PL-skin IRR-hurt continuous NEG.DEON
        'They shouldn't be annoyed (complain) all the time.'   [D]

(129)   **ofa* **em**-*oduy engaw mar erg-em éra*.
        s/he IRR-front crooked thing NUM:1-CST NEG
        'he didn't regret anything'

12.7.3 Negated non-verbal clauses

Non-verbal clauses may be negated with the negative adverb *éra* 'NEG', the same negative adverb which negates (declarative) verbal clauses. The negative adverbs *néesa* 'not yet' and *edak* 'NEG.DEON' do not negate non-verbal clauses. Negation of a nominal predicate is the sole strategy for negating a nominal. In negated non-verbal clauses, the negative adverb functions to deny the property which is asserted, as in the nominal predicates *mij* 'females' in (130), *mar efeyu* 'food garbage' in (131), and *mergej* 'firewood' in (132). Nominals, such as nouns, pronouns and headless relative clauses, or the few adverbs which function as predicates, are not marked for irrealis when negated.

(130)   *mif mi-ej éra*
        we.PL 1PL-female NEG
        'we aren't women'   [T14]

(131)   *mar no-ma-i erá mar efeyu éra*
        thing DNR-far GIV THM thing plant.matter NEG
        'that's not garbage'   [D]

(132)   *Owas fen eri-orna éra.*
        strong from they.PL-man NEG
        'Not power from men.'   [T27]

The negative adverb *éra* 'NEG' may itself function as a non-verbal predicate to negate a subject/topic, as in (133) *éra* negates *duwas* 'my strength' or 'capability', so that the clause has the literal meaning 'my capability to swim is truly not'. The negated headless relative clause *noga ejmeg owas*, subject/topic of the subordinate clause in (134), yields the meaning '[the place] that the strong current is not'.

(133)   *Dif **di-owas**   ni di-er-a   miy **ér(a)** nom.*
         I   1SG-strength for 1SG-stir-PGE water NEG   VER
         'I can't swim.' (lit. I my strength for I stir water (is) not able) (stir water =
         swim)   [D]

(134)   *Masik   ok   ofuy jig   miy   noga ah ucur,   esha **noga ejmeg***
         mosquito bear   egg   LOC   water REL   lie still   from REL   spine

         owas   éra.
         strength   NEG
         'Mosquitos lay eggs in water which is still, because [it is the place] that isn't a
         strong current.' (water's spine = current)   [T29]

Negation of an adverb serving as a non-verbal predicate, such as *rahu* in (135), indicates that the state of affairs is denied.

(135)   *rahu   tas   éra*
         long.time   again NEG
         'not a long time later'   [TT]

Possessive pronouns, such as *dadin* in (136) or *ofon* in (137), which may function as possessor verbs may be negated, but are not prefixed with the irrealis marker *em-* 'IRR', an indication of their nonverbal nature.

(136)   *Dif **dadin**   pensil erg-em   **éra**.*
         I   1SGPOS   pencil NUM:1-CST NEG
         'I don't have a/any pencils.'   [D]

(137)   *Ejen(a) eken(a) **ofon**   miyefen mosu   ejen(a) erg-em   **éra**.*
         woman red   3SGPOS money mother woman NUM:1CST NEG
         'The old woman doesn't have any large bills.' (*miyefen mosu ejena* = large
         quantity bills)   [D]

12.7.4 Tag *tinogurá*

The contra-expectation conjunction **tinogurá** 'but not' (§11.3.7.2) may occur as a tag, that is, a proform taking the place of a clause, following a positive clause to signal frustrated action, as in (138) and (139).

(138)　*Motah　no-kef,　　dif di-ogow　ofoj　　rot　　dif di-eyja jig pasar,*
　　　　morning DNR-here　I　　1SG-cut　pre-set　about　I　　1SG-go　LOC market

　　　　tinogurá.
　　　　but.not
　　　　'This morning, I planned that I go to the market, but didn't.' (cut pre-set = plan)
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　[D]

(139)　*y-omut　　　　　miy　　okow mogum,　**tinogurá.***
　　　　DU-demand.paymt cloth　debt　RECIPPRN but.not
　　　　'they (two) demanded a payment of cloth (*kain timor*) debt of each other, but
　　　　didn't get it.'　　　　　　　　　　　　　　　　　　　　　　[T15]

12.7.5 Prohibitives

Negation of declarative and imperative clauses is distinguished, in that prohibitives or negative imperatives are signaled by the negative adverb *edak* 'NEG.DEON'. When the subject of a prohibitive clause is second person singular, the pronominal prefix *bi-* is suppressed, the subject being expressed by the personal pronoun *bua* 'you.SG' only, and the irrealis marker *em-* occurs in the abbreviated form *m-* 'IRR', as in (140) and (141). In a serial verb construction (§9.1.1), only the verb with the second person subject, such as *ohojoh* 'ruin' in (142), has the abbreviated form, although both verbs in the construction share the same mode. The negative adverb *néesa* 'not yet', as in (143), is the only negative adverb that has been observed to co-occur with *edak*. Negative imperatives have a single form, although they may be interpreted as stronger or weaker depending upon the intensity in which they are uttered.

(140)　*Bua　　m-esek(a) dif **edak**!*
　　　　you.SG　IRR-poke　I　NEG.DEON
　　　　'Don't touch me!'　　　　　　　　　　　　　　　　　　　[D]

(141)　*Bua　　m-ekris　　dif di-ogá　　**edak**.*
　　　　you.SG　IRR-exceed　I　1SG-speech　NEG.DEON
　　　　'Don't oppose my words.'　　　　　　　　　　　　　　　[TT]

(142)   *Bua   m-ohojoh miyefen em-oysa   tisef **edak**!*
         you.SG IRR-ruin   money IRR-finished today NEG.DEON
         'Don't waste money today!' (lit. don't ruin money [so] it is used up)   [D]

(143)   *Bua   m-og   néesa   **edak**.*
         you.SG IRR-gouge not.yet NEG.DEON
         'Don't write yet!'   [D]

When the subject of a clause negated with *edak* is second person dual or plural, it is expressed with a personal pronoun and a pronominal prefix on the verb, as in (144), and may be interpreted as either negative imperative or negative deontic.

(144)   *Yoga   y-em-ecira jig maeken(a)   **edak**.*
         you.DU   DU-IRR-walk LOC garden   NEG.DEON
         'Don't you (two) walk to the garden!' or
         'You (two) shouldn't walk in the garden.'   [T23]

12.7.6 Negative response

In response to a polar question, the independent negative word *ogurá* 'no' is employed, as in (145). The negative adverb *néesa* 'not yet' has also been observed to occur, standing alone as an independent negative response, separated by a pause and having its own intonation contour, as in (146).

(145)   ***Ogurá**. Bua   erá   noga bi-eset   ofa,   erogá   en-ogos.*
         no   you.SG THM   REL 2SG-prick s/he   hence   DUR-die
         'No. You are [the one] who stabbed him, so he is dying.'   [D]

(146)   *Ergog   y-ejeka   gug ofa ohot, [**Néesa**. Yef   no-ma-i   erá   okuk*
         they.DU DU-call.out to s/he say   not.yet we.DU DNR-far-GIV THM   like

         merga   owock(a)...]
         wood   sprout
         'They (two) called out to her, "Not yet. We are like tree buds...."'(direct quote)
         [T23]

The independent negative word *ogurá* 'no' may function as a proform, taking the place of a clause, as in (147) and (148).

(147)   *Dif,   **ogurá**.*
         I   no
         '[As for] me, no.'   [D]

(148)   *No-ma-i,*   ***ogurá****!*
        DNR-far-GIV no
        '[As for] that, no!'   [D]

12.7.7 Lexically negative verbs and adverbs

In addition to standard or sentential negation, the notion of the opposite or denial of a positive assertion may be accomplished through a number of verbs or adverbs which are lexically negative. Lexically negative verbs, such as *odow* 'disinclined', 'not want' or 'reject', *odrurna* 'oblivious', 'unaware', *ahusta* 'withhold', 'hold back', *edis* 'mismatch', 'not hit target', or 'miss', *otu* 'be scarce', etc. communicate concepts which are primarily expressed as the negation of an assertion in other languages. Lexically negative verbs, such as *odow* 'not want' in (149) or *ahusta* 'withhold' in (150), may not be negated.

(149)   *Ofa*   ***odow***   *mar no-ma-i,   erogá eyjgej   gijga.*
        s/he   disinclined thing DNR-far-GIV hence throw.away only
        'He didn't want the thing, so (he) just threw it away.'   [T20]

(150)   *eri   i-**ahusta**   mom   no-ma-i   fen   i-eferiok   no-ma-i*
        they.PL 3PL-withhold cassava DNR-far-GIV from 3PL-sm.child DNR-far-GIV
        'they withheld the single-root cassava from the small children'   [T11]

Lexically negative adverbs: *sohoha* 'unintentionally' or 'not deliberately', as in (151), *ses* 'inadvertently' or 'mistakenly', as in (152), and *ruruy* 'unrestrictedly' or 'not concurring with the norm', as in (153), also communicate the opposite of a positive assertion.

(151)   *Dif di-ecira   **sohoh(a)**   nom.*
        I   1SG-walk   unintentional   VER
        'I truly am walking (around) with no forethought.'
        'I truly am not walking (around) with any special purpose.'   [D]

(152)   *Dif di-ociga   **ses**.*
        I   1SG-strike mistakenly
        'I struck (it) inadvertently.'   [D]

(153)   *Dif di-eyj   di-ofoms(a) jig keradi   **ruruy***
        I   1SG-toss 1SG-energy LOC work   unrestrict.
        'I spent effort on the work in vain'   [D]

Lexically negative adverbs may also occur in a negated clause, such as *sohoha* occurs in the negated complement clause in (154).

(154)   *Dif di-ejgen   rot   [bua   bi-em-osra   jig dadin   mod=kef*
         I   1SG-know   about you.SG   2SG-IRR-enter   LOC 1SGPOS   house=here

         sohoh(a)   *éra.*]
         unintentional   NEG
         'I know you didn't enter my house unintentionally.'   [D]

Appendix A
Moskona and Meyah, a comparison

0.0 Introduction

In the past, Moskona was considered to be a dialect of Meyah, a more widely known East Bird's Head language. This was based on a high cognate percentage (up to 85%). But the high cognate percentage and strong parallels in syntax notwithstanding, their mutual intelligibility level is very low, as Moskona speakers are not able to understand speakers of Meyah and vice versa.

Contributing to their low mutual intelligibility is the frequent occurrence of two or more differences in the morphological forms of words which have the same meaning. These differences may take the shape of segmental disparities and/or accent placement. Segmental disparities may involve either consonants or vowels, such as the Moskona verb *ogow* 'chop' and the Meyah cognate *agob* 'chop', or even the presence of a separate syllable, as in the Moskona noun *efi* 'leaf' and its corresponding Meyah form *efeyí* 'leaf'. Differing accent placement in corresponding forms may be seen in the Moskona verb *éysaha* 'reach'/'arrive' and the Meyah cognate *esagá* 'reach'/'arrive' or the Moskona noun *eféga* 'body' and Meyah *efagá* 'body. Mismatches of the pronominal prefixes, which signal subject on verbs and possessor on inalienable nouns, also produce comprehension difficulties, such as the Moskona dual pronominal prefix *y-* 'DU' indicating dual for all persons, in contrast to the Meyah prefixes which distinguish dual in three forms *na-* '1DU.INC', *ma-* '1DU.EX' and *ge-* '2/3DU'. In addition, the prefix *i-* in Moskona indicates third person plural, but in Meyah second person plural.

The main purpose of this appendix is to give a brief survey of the similarities and differences in the phonologies, morphophonemic processes, morphologies and syntactic structures of Moskona and Meyah.

The discussion begins at the segmental level with comparison of the phonological systems (§1.0) and precedes through morphophonemics (§1.4) to a comparison of the word classes (§2.0). A comparison of the structure and composition of noun phrases (§3.0) and prepositional phrases (§4.0) is followed by a discussion of simple clausal structures (§5.0), including classificatory verbs, experiential constructions, and emotional-state constructions. More complex constructions, such as complementation clauses (§6.0) and serial verb constructions (§7.0) are considered, followed by a comparison of the linkers found in combined clauses (§8.0). The discussion concludes with a brief comparison of interrogatives (§9.0), commands (§10.0), and attitude markers (§11.0). Comparison examples will be given in each topic area to illustrate the similarities or differences.

No attempt has been made to postulate proto-forms, although where appropriate, morphological similarities will be noted, nor will an attempt will be made to interpret processes which brought about differences in forms or structures.

Meyah data used for comparison, taken from "Meyah:an east Bird's Head Language of Papua, Indonesia" by Gilles Gravelle (2004) is from a unified dialect which has minor regional differences. The Moskona data in this comparison is primarily from the northern dialect.

1.0 Phonologies

The segmental inventories of Moskona and Meyah, are almost identical. The consonants will be discussed first, followed by a comparison of the vowels and their allophones. The suprasegmental systems are both pitch accent, and although quite similar have the major difference of accent placement. A comparison of the morphophonemic processes found in Moskona and Meyah will complete the discussion of the phonological systems.

1.1 Segmental inventories

With the exception of the approximants, the segmental inventories are identical, that is, Moskona and Meyah have (almost) identical lists of consonants and vowels.

1.1.1 Consonants

The consonantal systems of Moskona and Meyah share an asymmetrical configuration due to the distinctive absence of a voiceless bilabial stop, as illustrated in Table 1. The Moskona segmental inventory has 15 consonants; the Meyah segmental inventory has 13 consonants. The ostensible difference in number is due to the ascribed status of the approximants /w/ and /y/, which in Moskona are given phonemic status, but in Meyah are given non-consonantal status, interpreted as glides on vowels, and noted as (w) and (y) in Table 1. A secondary difference in the consonantal inventories is found in the allophones. Moskona and Meyah differ in the allophones of the voiced bilabial stop /b/, the voiceless alveolar fricative /s/, the voiced affricate /j/ and the alveolar nasal /n/.

In Table 1 a summary of the consonantal inventories of Moskona and Meyah are given. As a concession to the orthography, the symbols /c/, /j/, /f/, /h/, /r/, and /y/ are used to represent the phonemes /t͡ʃ/, /d͡ʒ/, /ɸ/, /x/, /ɾ/, and /j/ respectively.

Table 1. Summary of the consonantal systems in Moskona and Meyah

	labial	alveolar	palatal	velar
plosives vl.		t	c	k
vd	b	d	j	g
fricatives	f	s		h
nasals	m	n		
flap		r		
approximants	w/(w)		y/(y)	

The voiceless allophone of the voiced bilabial plosive /b/, [p], has a different environment in Moskona than in Meyah, as [p] in Moskona occurs preceding a voiceless stop, as in (1a), and the voiced plosive [b] occurs word-finally as in (1b). In Meyah, the voiceless bilabial plosive [p] occurs word-finally only, as in (2b), and the voiced plosive [b] occurs preceding a voiceless stop, as in (2a).

Moskona:
 /b/ > [p] / __ vl. stop
(1a)   /ébka/   [ɛpka]   'crack in two'
(1b)   /ob/   [ob]   'snap off'

Meyah:
 /b/ > [p] / ___#
(2a)   /obk/   [obk]   'send'
(2b)   /agob/   [agób] ~ [agóp]   'strike'

The voiced palatal affricate /j/ in Moskona has three variant allophones [d͡ʒ] ~ [ʃ] ~ [t͡ʃ], as in (3). The Meyah voiced palatal affricate /j/ has a single phonetic realization [d͡ʒ], as in (4).

Moskona:
(3)   /ójgun/   [ód͡ʒgun] ~ [óʃgun] ~ [ót͡ʃgun]   'cough'

Meyah:
(4)   /ojgunú/   [od͡ʒgunú]   'cough'

In Moskona the alveolar nasal /n/ and alveolar fricative /s/, do not have palatal allophones, as in (5a and 5b). In Meyah the alveolar nasal /n/ and alveolar fricative /s/ have the allophones [ɲ] and [ʃ] following the palatal approximant (y), as in (6a and 6b).

Moskona:

| (5a) | /óyna/ | [ójna] | 'cook' |
| (5b) | /óysa/ | [ójsa] | 'finish' |

Meyah:

/n/ > [ɲ] / (y) __

| (6a) | /oina/ | [ójɲa] | 'cook' |

/s/ > [ʃ] / (y) __

| (6b) | /óisa/ | [ójʃa] | 'finish' |

1.1.2 Vowels

Both Moskona and Meyah have a five vowel systems with an identical configuration of vowel phonemes, but differ in the allophones of some vowel phonemes and the environments of other vowel phonemes. The mid front vowel /e/ is realized as [ɛ] in both, as in Moskona /ek/ [ɛk] 'see' and Meyah /ek/ [ɛk] 'see'. The high front vowel /i / is realized as [i] and [ɪ] in both, but in Moskona [ɪ] occurs preceding /r/ in closed syllables, and [i] elsewhere, as in (7a). In Meyah, the allophone [ɪ] occurs preceding /n/ in closed syllables, and [i] elsewhere, as in (8a). Regarding the allophones of the back vowels, in Moskona the high back vowel /u/ has the allophone [ø] occurring preceding the palatal approximant /y/, and [u] elsewhere, as in (7b). Meyah has a single phonetic realization of /u/ as [u], as in (8b). In Moskona the mid back vowel /o/ has the allophone variation [o] ~ [ɔ] contiguous to a velar consonant, and [o] elsewhere, as in (7c). The Meyah mid back vowel /o/ has a single phonetic realization [o], as in (8c).

Moskona:

(7)	a.	/ébir/	[ɛβɪr]	'head'
		/éri/	[ɛɾi]	'they.PL'
		/éfin/	[ɛɸin]	'flatten'
	b.	/ósuy/	[ósøj]	'ear'
		/jug/	[d͡ʒug]	'against'
	c.	/ékok/	[ɛkɔk] ~ [ɛkok]	'father'
		/ófof/	[óɸoɸ]	'run'

Meyah:

(8)	a.	/ebírfagá/	[ɛbírɸagá]	'head'
		/ériaga/	[ériaga]	'weak'
		/efin/	[éɸɪn]	'spin'
	b.	/osúyra/	[osújɾa]	'last'
		/mowúg/	[mowúg]	'boil'
	c.	/okók/	[okók]	'pursue'
		/ófof/	[óɸoɸ]	'run'

1.2 Syllable types

Moskona and Meyah have identical canonical syllable types: V, CV, VC, and CVC, as in:

	Moskona		Meyah	
V	*e.bir*	'head'	*e.bah*	'raw'
CV	*ji.da*	'until'	*ma.mu*	'stone
VC	*ah.da*	'itch'	*eb.ga*	'torn'
CVC	*me.deg*	'bamboo'	*mar.fok*	'flower'

In Moskona there is a phenomenon found in running speech, in which roots with the syllable structure CVC.CV, such as *mer.ga* 'wood', or the syllable structure VC.CV, such as *ah.ta* 'black', may elide an unaccented root-final /a/. The resulting syllable types CVCC and VCC are produced, yielding forms such as *merg* 'wood' and *aht* 'black'. This phenomenon does not occur in Meyah.

1.3 Pitch-accent system

Both Moskona and Meyah are pitch accent languages with only one tone melody. Moskona is a mixture of quantity-sensitive accent placement and lexical accent placement, although the placement of accent on roots is generally predictable, typically occurring on the penultimate syllable of the word. In Meyah accent placement is contrastive, such as root-final placement in *efagá* 'body' and penultimate placement in *ébah* 'alive'. Accent placement contributes greatly to the lack of mutual intelligibility between Moskona and Meyah, although their lexicons are approximately 80 - 85% cognate. The cognate pairs listed in Table 2 illustrate the difference in accent placement.

Table 2. Accent placement in a few Moskona and Meyah cognates

Moskona		Meyah	
eféga	'body'	*efagá*	'body'
cîyja	'five'	*cînja*	'five'
ébah	'alive'	*ébah*	'alive'
móga	'wall'	*magá*	'cliff face'
émba	'rotten'	*embá*	'rotten'
órna	'man'	*óna*	'man'
eféja	'hair'	*efejî*	'hair'
mogósa	'snake'	*magosú*	'snake'
meybága	'sky'	*meybagá*	'sky'
meméga	'mountain'	*meymagá*	'mountain'

1.4 Morphophonemics

1.4.1 Verbal affixation

The morphophonemic processes in Moskona and Meyah are almost parallel. In both Moskona and Meyah vowels of inflectional prefixes assimilate to agree with the most contiguous vowel of the root, that is, whatever root vowel is closest to the affix. These include affixes on verbs, inalienable nouns, the plural suffix and the circumfix.

The vowels of the verbal prefixes which express verbal properties undergo regressive (anticipatory) assimilation which is non-contiguous. The prefix vowel /e/ of the durative prefix *en-* 'DUR', the irrealis prefix *em-* 'IRR' and the causative prefix *er-* 'CAUS' assimilates to agree in backness with the first vowel of the root, such as the causative/instrument prefix *er-* vowel /e/ assimilates to /o/ to agree in backness with the first vowel of the Moskona verb *ofjig* in (9) or the Meyah verb *ofij* in (10). The vowel of the irrealis prefix *em-* assimilates /e/ to agree with the first vowel of the root on verbs, such as the Moskona verb *ek* 'see' in (11) or the Meyah verb *ek* 'see' in (12).

Moskona:
(9)   *er-ofjig*   [oɾóɸd͡ʒɪg]
        CAUS-help
        's/he helps'

Meyah:
(10)   *er-ofij*   [oɾóɸid͡ʒ]
        INSTR-help
        's/he helps'

Moskona:

(11)   *em-ek*   [ɛmɛ́k]
         IRR-see
         's/he will see'

Meyah:

(12)   *em-ek*   [ɛmɛ́k]
         IRR-see
         's/he will see'

The vowels of pronominal prefixes, which signal subject on verbs and possessor on inalienable nouns, coalesce with the initial mid vowel of the stem to form a vowel which has the height of the prefix vowel and the frontness or backness of the stem vowel, such as the vowel /i/ in the prefix *bi-* in (13) coalesces with the first vowel of the Moskona verb root *oduk*, yielding /u/, or the vowel /i/ of the Meyah prefix *bi-* in (14) coalesces with the first vowel of the Meyah verb root *obk*, yielding /u/. Similarly, the vowels of the Moskona prefix *i-,* as in (15), and the Meyah prefix *ri-*, as in (16), coalesce with the front vowel of the verb root, yielding /i/. The mid vowel /e/ in the Meyah prefix *ge-*, as in (18), coalesces with the vowel of the root *et* 'eat' to yield /e/. The Moskona dual marker *y-* is a consonant and does not undergo assimilation, as in (17).

Moskona: Meyah:

(13)   *bi-oduk(a)*   [budúk]   (14)   *bi-obk*   [bubk]
         2SG-order   2SG-send
         'you order'   'you send'

Moskona: Meyah:

(15)   *i-ek*   [ik]   (16)   *ri-ek*   [rik]
         3PL-see   3PL-see
         'they see'   'they see'

Moskona: Meyah:

(17)   *y-et*   [jɛt]   (18)   *ge-et*   [gɛt]
         DU-eat   2DU-eat
         'you (two) eat'   'you (two) eat'

The morphophonemic process in Moskona differs slightly from the process in Meyah for those Meyah verbs and inalienable nouns which have the root-initial low vowel /a/. The vowels of these Meyah roots do not undergo coalescence. Rather, the root-initial /a/ overrides the morphophonemic process, eliding the prefix vowel, such as the prefix vowel in *di-* is elided when attached to the verb *aha* 'put' in (19) or the inalienable noun *aki* 'leg' in (20). In Moskona the vowels of pronominal prefixes coalesce with root-initial vowels in all occurrences, such as the prefix vowel in *di-* and the initial vowel of the verb

ahac in (21) coalesce to form /i/. (No inalienable nouns in Moskona have a root-initial /a/.)

Meyah:
(19)   *di-aha*   [dáxa]
        1SG-put
        'I put'

(20)   *di-aki*   [dáki]
        1SG-leg
        'my leg'

Moskona:
(21)   *di-ahac*   [dixát͡ʃ]
        1SG-tie
        'I tie'

In Moskona the placement of the vowel /a/ as a central vowel may be artificial, as it is not distinguished from the front vowels in its interaction with the vowels of the prefixes. In Meyah /a/ is distinguished from the front vowels in that it overrides the coalescence process.

1.4.2 Plural marker

The plural marker *–ir* 'PL', which marks plural in both Meyah and Moskona, attaches to nouns denoting humans, such as the Moskona kinship term for younger siblings of the same sex, as in (22), and the Meyah kinship term for younger siblings of the same sex, as in (23). The suffix vowel /i/ coalesces with the root-final /a/, and is realized as /e/ [ɛ].

Moskona:
(22)   *m-ok-esa-ir*   [mokɛsέɾ̥]   'NR-sib.s.s-yg-PL'

Meyah:
(23)   *me-oko-sa-ir*   [mokosέɾ]   '3SG-sib.s.s-yg-PL'

1.4.3 Reduplicative processes

Very similar reduplicative processes occur in Moskona and Meyah, yielding a partial reduplication of the last two or three segments of a root, such as the Moskona form *egesgesa* in (24) and the Meyah form *orugrug* in (25).

Moskona: Meyah:
(24)   *egés-gés(a)* 'very high'   (25)   *orúg-rúg* 'very yellow'

There is a template for a reduplicant with pre-specified positions, (V)CmV[-hi]C(V), which functions as an intensifier. Reduplicants formed from this template are found in Moskona, such as *eskeyramera* in (26) and *koskamoka* in (28), and in Meyah, such as *eskeirameira* in (27) and *onkoskamoka* in (29).

Moskona: Meyah:
(26)   *eskéyr-amer(a)*   'most clear'   (27)   *eskéyra-meyra*   'very healthy'

Moskona: Meyah:
(28)   *kósk-amok(a)*   'very well'   (29)   *onkóska-moka*   'very beautiful'

2.0 Morphology

The grammatical categories in Moskona and Meyah are very similar, as both have two major word classes, verbs and nouns, and several minor classes which include adverbs and adverbials, numerals, prepositions, question words and conjunctions.

2.1 Verbs

Moskona and Meyah verb roots share the morphophonological characteristic of a root-initial non-high vowel, /e, o, or a/, as in the Moskona verb roots *ek* 'see', *ot* 'stand', and *ahac* 'tie', and the Meyah verb roots *eker* 'sit', *ohoda* 'dismantle', and *agob* 'strike'.

Subcategories of verbs for both Moskona and Meyah include transitive and intransitive verbs, with adjectival verbs as a subclass of intransitive. A few ambitransitive verbs also occur in both languages. Moskona has an additional type of intransitive verb, a detransitivized verb in which the subject has the semantic role of undergoer. It is derived by the cliticization of the spatial deictic *-ef* 'near' to a transitive verb, such as *ohmef* 'tore loose' in (30). Detransitivized verbs are not found in Meyah.

(30)   *merga   ohma=ef*
        wood   tear.loose=near
        'the tree tore loose'

Prefixes

The pronominal prefixes indexing subject in Moskona parallel the pronominal prefixes in Meyah, with the exception of the inclusive/exclusive opposition found in Meyah. A comparison of the pronominal prefixes are presented and discussed in personal deixis §2.5.1.4 of this appendix.

Inflectional categories which are common to both languages include durative, indicated by *en-* 'DUR', irrealis indicated by *em-* 'IRR', and causative in Moskona /instrument in Meyah indicated by *er-* 'CAUS'/'INSTR'. The order of inflectional morphemes in the transitive verb word for both Moskona and Meyah is:subject (as pronominal prefix), mode (as irrealis) or aspect (as durative), causative (also signaling an instrument), object (as circumfix, to replace a reciprocal pronoun) and verb root, abbreviated as:

SubjP (IRR/DUR) (CAUS/INSTR) (ObjCfx) Vrt

The subject-irrealis-causative order is illustrated by the prefixes attached to the Moskona verb *ef* 'do.in.turns' in (31) and the Meyah verb *eba* 'wrap s.t.' in (32).

Moskona:
(31)   *i-em-er-ef*
   3PL-IRR-CAUS-do.in.turns
   '(they) would wind s.t. in turns'

Meyah:
(32)   *ri-em-er-eba*
   3PL-IRR-INST-wrap
   '(they) would wrap s.t.'

In Moskona the verbal prefix indicating irrealis *em-* 'IRR' is obligatorily attached to the verb in all negated (verbal) clauses, as in (33). Meyah differs in that the prefix indicating durative aspect *en-* 'DUR' obligatorily occurs on all verbs in negated clauses, as in (34).

(33)   *Dif di-**em**-osotka   m-ej   néesa.*
   I   1SG-IRR-marry NR-female   not.yet
   'I (male) am not married yet.'

(34)   *Ofa   **en**-et   mat   guru.*
   s/he   DUR-eat food   NEG
   'He didn't eat the food.'

The two additional verbal prefixes which occur in Meyah, but have not been observed in Moskona, are the perfective infix -N-, as in *a<N>gos* 'die' in (35), and the inceptive prefix *ej-* 'INCEP', a grammaticalization of the verb *eyja* 'go', as in *ej-ok* (INCEP-bear) 'start carrying' in (36).

Meyah:
(35)   *Di-a<N>gos   jeska ....*
   1SG<PERF>die   from
   'After I have died ...'

(36)   *Di-ej-ok   megej*
   1SG-INCEP-bear firewood
   'I started carrying the firewood'

Suffixes

Pronominal suffixes which index object in Meyah, such as the suffix –*ib* attached to the verb *agob* in (37), do not occur in Moskona. Moskona requires a free pronoun, such as *bua* in (38), to fill the object position.

Meyah:
(37)   *di-agob-**ib***   [dagóbib]
         1SG-chop-2SG
         'I struck you (with a machete)'

Moskona:
(38)   *dif di-ogow   **bua***   [dúgow]
         I   1SG-chop   you.SG
         'I struck you (with a machete)'

Verbs in Moskona and Meyah may be reduplicated with the reduplicant acting as an affix. For adjectival verbs in Moskona, the reduplicant signals intensification of quantity, such as Moskona adjectival verb *orokecec* in (39). For adjectival verbs in Meyah, the reduplicant signals intensification of quality, such as the adjectival verb *etebeb* in (40). For transitive and intransitive verbs, the reduplicant signals continuous or iterative aspect, such as Moskona intransitive verb *ahdahda* in (41) and Meyah transitive verb *ejekjeka* in (42).

Moskona:
(39)   *merah   orokec-ec*
         fire   big-RED
         'many big fires'

Meyah:
(40)   *mekeni   eteb-teb*
         garden   RED-big
         'a very big garden'

Moskona:
(41)   *ahd-ahda*
         itch-RED
         'constantly itch'

Meyah:
(42)   *ejek-jeka*
         RED-ask
         'repeatedly ask (s.t.)'

2.2 Nouns

The noun classes of Moskona and Meyah have the subcategories alienable and inalienable, with identical phonological and morphological characteristics. That is, alienable nouns, which have a syntactic possession strategy, typically have *m-* fused to the root, such as the Moskona alienable noun *mitow* 'machete' in (43) and Meyah alienable noun *meiteb* 'machete' in (44). Inalienable nouns, which have a morphological possession strategy, have a non-high vowel as the root-initial segment, such as Moskona inalienable noun *ebir* 'head' in (45) and Meyah inalienable noun *ebirfaga* 'head' in (46).

Moskona:
(43)   *ofon   mitow*
        3SGPOS   machete
        'his/her machete'

Meyah:
(44)   *efen   meiteb*
        3SGPOS   machete
        'his/her machete'

Moskona:
(45)   *di-ebir*
        1SG-head
        'my head'

Meyah:
(46)   *di-ebirfaga*
        1SG-head
        'my head'

2.3 Adverbs

Adverbs in Moskona and Meyah have similar subcategories which may be grouped by their clausal position and scope of application. Those which have the narrowest scope occur immediately following a verb and its optional object, while those with broader scope occur clause finally.

Those adverbs which occur closest to the verb include the manner adverbs, such as the Moskona adverb *terir* in (47), and the Meyah adverb *koisoisa* in (48).

Moskona:
(47)   *Eri   i-ek   **terir***
        they.PL   3PL-see   exactly
        'they see exactly'

Meyah:
(48)   *Rua   ri-ek   **koisoisa***
          they.PL 3PL-see   clearly
          'they see clearly'

Locative adverbs, such as the Moskona adverb *teraw* in (49) and the Meyah adverb *skida* in (50), may follow a peripheral argument.

Moskona:
(49)   *Bua   bi-ofra lampu   no-ma-i   **teraw***
          you.SG   2SG-lift lamp   DNR-far-GIV above
          'Lift the lamp above.'

Meyah:
(50)   *Ri-ei   rerin   mod gij mega esta   **skida***
          3PL-build 3PLPOS house in   tree   branch above
          '(they) built their houses in the tree branches above.'

Moskona and Meyah have a subgroup of adverbs, the focus adverbs, which may modify nominal, as well as predicate elements. The Moskona focus adverbs with the corresponding Meyah equivalents are:

Moskona		Meyah	
gijga	'only'	*ojgomu*	'only'
tin	'also' or 'even'	*tein*	'also'
ruruy	'unrestricted' or 'any'	*rourou*	'arbitrary'
romreg	'entirely' / 'all'	*nomnaga*	'entirely' / 'all'
sis	'past'	*sismeni*	'past'
tas	'more' or 'again'	*deika*	'again'
toga	'different(ly)'	*toga*	'different'

The Moskona focus adverb *romreg* in (51) and the Meyah focus adverb *nomnaga* in (52), modify a predicate. These same adverbs may also be seen to modify a nominal, such as *mif* in (53) and *mimif* in (54).

Moskona:
(51)   *(ofa) en   em-oysa-mos   **romreg** jog*
          s/he   do   IRR-finish-RED entirely already
          'he did (it) [so] it was entirely finished up already'

Meyah:
(52)   *Ri-o<m>f   mega,   fogera   em-oysa   **nomnaga***
        3PL-PERF-fell tree   cause   IRR-finish entirely
        'we felled the trees, so it would be entirely finished'

Moskona:
(53)   *mif   **romreg**   mi-ejgen   rot...*
        we.PL all   1PL-know   about
        'we all know that ...'

Meyah:
(54)   *Mimif   **nomnaga**   mi-ejginaga   rot...*
        we.PL.IN all   1PL.IN-know   about
        'we all know that..'

Clause-final adverbs

Those adverbs in Moskona and Meyah which have the entire clause as their scope occur
in clause-final position, expressing phasal aspect. These are:

Moskona		Meyah	
jog	'already'	*fob*	'already'
roga	'first'	*fog*	'before'/'first'
ros	'still'	*ros*	'still'

The Moskona clause-final adverb *jog* in (55) and the Meyah clause-final adverb *fob* in
(56) express the semantic notion 'already'.

Moskona:
(55)   *Ofa   et   mar   **jog**.*
        s/he   eat   thing already
        'He already ate.'

Meyah:
(56)   *Ofa   et   mat   **fob**.*
        s/he   eat   food   already
        'He already ate.'

Moskona and Meyah have modal type clause-final adverbs, which follow a negative
adverb if one is present.The clause-final adverbs which have a modal function are:

	Moskona		Meyah	
deke	'may'		--	
eri	'probably'		--	
jef	'DEON'		*jefa*	'should'
nom	'VER'		*nom*	'MOD'
se	'certainly'		*si*	'certainly'

Not all of those which occur in Moskona, such as the clause-final adverbs *deke* 'may' and *eri* 'probably', have an equivalent form in Meyah. Permission in Meyah is given in the form of an idiomatic command, using *ojgomu* 'just', as in *bua bi-eyja ojgomu* (you.SG 2SG-go just) 'just go'.

The Meyah cognates of some Moskona clause-final adverbs do not always perform all of the same functions, as illustrated by the Moskona clause-final adverb *nom* 'VER' in (57), which has abilitative and epistemic (verity) modal functions. The Meyah adverb *nom* in (58) has only abilitative mode.

Moskona:

(57)   *Mow   no-ma-i   em-ecen   ér(a)   nom.*
        land   DNR-far-GIV   IRR-distant   NEG   VER
        'The place really isn't far.'

Meyah:

(58)   *Didif di-otunggom   mar   ke-uma   nom.*
        I   1SG-do   thing   NOM-that   ABIL
        'I am able to do that.'

Negative adverbs

The negative adverbs in Moskona and Meyah, which occur clause or sentence-finally, differ in that Moskona has a larger inventory of negative adverbs. Negative adverbs in Moskona express the negation of a proposition, negation of a possibility, and the negative imperative. Moskona also has an independent negative word. Meyah distinguishes only the negation of a proposition and negation of a possibility, whereas expression of imperative negation requires a phrase. Independent negation in Meyah utilizes the negative adverb which is employed for negation of a proposition.

In the negation of a proposition, Moskona employs *éra* 'NEG', as in (59), and Meyah uses *guru* 'NEG', as in (60).

Moskona:

(59)   *Dif di-em-ek   mar   éra.*
        I   1SG-IRR-see   thing   NEG
        'I didn't see the thing.'

Meyah:

(60)   *Didif di-en-ek   mar **guru***.
        I   1SG-DUR-see thing NEG
        'I didn't see the thing.'

In the negation of a possibility, Moskona utilizes the negative adverb *néesa* 'not yet', as in (61); Meyah uses the negative adverb *enesi* 'not yet', as in (62).

Moskona:

(61)   *Ejena   no-ma-i   em-eyja jig   maeken **néesa***
        woman DNR-far-GIV IRR-go LOC   garden not.yet
        'The woman didn't go to the garden yet'

Meyah:

(62)   *Ri-osnok   nomnaga ri-en-en   jah Indog Efej **enesi***
        3PL-person   all   3PL-DUR-come to   Indog Efej   not.yet
        'All the people had not come to Indog Efej yet.'

In expressing negative imperative, Moskona utilizes the negative adverb *edak* 'NEG.DEON', as in (63), but Meyah requires the adverbial phrase *ojgomu guru*, as in (64).

Moskona:

(63)   *Bua   bi-em-et   mar   **edak***.
        you.SG 2SG-IRR-eat   thing NEG.DEON
        'You shouldn't eat it.'

Meyah:

(64)   *Bua   bi-en-et   mar   **ojgomu guru***
        you.SG 2SG-DUR-eat thing only   NEG
        'You shouldn't eat it.'

To express independent negation, Moskona uses the distinct form *ogurá* 'no', as in (65). In Meyah the independent negation word is not distinct from the negative adverb *guru* used to negate propositions, as in (66).

Moskona:

(65)   *No-ma-i,   **ogurá***!
        DNR-far-GIV no
        'That (one), no!'

Meyah:

(66)   **Guru**, *mosona   en-oitij* ...
        no   foreigner   DUR-agree
        'no, the foreigner has (not) agreed ...'

Verbal adjuncts

The Moskona spatial preposition *kerenga* 'over' and the non-spatial *jug* 'against' function as adjuncts in a verb plus adjunct construction which serves as an idiomatic unit. This type of construction is possibly an areal feature in languages found in the eastern Bird's Head (Reesink 2002:22). The Meyah cognates *keingg* 'ADV' and *joug* 'ADV', appear to no longer function as prepositions, having transitioned to verb particles or adjuncts, which are used in idiomatic (or abstract) expressions only. These verb-plus-adjunct constructions may be observed in Moskona, as in the verb *ot* 'stand' plus the preposition *kerenga* 'over' in (67) or the verb *ot* 'stand' plus the preposition *jug* 'against' in (68). In Meyah, the construction is seen in the verb *ot* 'stand' plus *keingg* 'ADV' in (69) and *ot* plus *joug* 'ADV' in (70).

Moskona:

(67)   *Eri   i-**ot**   **kerenga** mif*
        they.PL 3PL-stand over   we.PL
        'They oppressed us.'

Meyah:

(68)   *Rua   ri-**ot**   **keingg** mif*
        they.PL 3PL-stand ADV   we.PL
        'They oppressed us.'

Moskona:

(69)   *ofa   **ot**   **jug**   efer*
        s/he   stand against child
        'he guards the child'

Meyah:

(70)   *ofa   **ot**   **joug** efesa*
        s/he   stand ADV   child
        'he guards the child'

2.4 Numerals

2.4.1 Cardinal numbers

The Moskona and Meyah numeral systems are parallel for numeral expressions six through ten. Numerals one through five are unique roots in Moskona and Meyah. Numerals six through nine are constructions composed of the root for 'five' plus a lower numeral. Table 3 gives the parallels of the cardinal number systems in Moskona and Meyah, illustrating numerals one to ten.

Table 3. Cardinal number systems of Moskona and Meyah

Moskona			Meyah	
erg-es	'one'		*eg-ens*	'one'
erg-ak	'two'		*eg-eka*	'two'
erg-om	'three'		*org-omu*	'three'
tahgur	'four'		*tohkuru*	'four'
ciyja	'five'		*cinja*	'five'
ciyja erges okun	(five one side)	'six'	*cinja erfens*	'five (plus) one'
ciyja ergak okun	(five two side)	'seven'	*cinja erfeka*	'five (plus) two'
ciyja ergom okun	(five three side)	'eight'	*cinja orfomu*	'five (plus) three'
ciyja tahgur okun	(five four side)	'nine'	*cinja tohkuru*	'five (plus) four'
s-etka	'ten'		*s-etka*	'ten'

The Moskona numeral system uses a construction composed of *setka* 'ten', a reduced form of the phrase *(o)s(nok) etka* 'person divided', plus a numeral one through four to express numerals eleven to fourteen. Meyah employs the same construction, and continues it up to nineteen. Moskona has a unique numeral for fifteen, *koram* 'fifteen', and forms the numerals sixteen through nineteen by the addition of numerals one through four to fifteen. The Moskona and Meyah numeral systems diverge in their expression of the number twenty. Moskona uses a construction, meaning 'one person' to express 'twenty', as in (71). Meyah uses a construction meaning 'two times ten' to express 'twenty', as in (72).

Moskona:
(71)   *i-osnok*   *i-erg-es*
         3PL-person   3PL-NUM:1-one
         'twenty'

Meyah:
(72)   *setka*   *egeka*
         ten   two
         'twenty'

A construction meaning 'two people' is used in Moskona to express 'forty', as in (73), in contrast to Meyah which uses a construction meaning 'four times ten' to express 'forty', as in (74).

Moskona:
(73)   *i-osnok   ibah   i-erg-ak*
         3PL-person HUMAN   3PL-NUM:1-two
         'forty'

Meyah:
(74)   *setka   tohkuru*
         ten   four
         'forty'

2.4.2 Ordinal numbers

The Meyah ordinator prefix *ju-* 'ORD' is utilized to express the order in a sequence of items or events, as in the ordinal numbers one through three, listed in (75b). Moskona no longer has an opposition between cardinal and ordinal numbers, but the ordinator prefix *ocu-* 'ORD' occurs in the multiplicative numeral adverbials, listed in (75a).

(75)	a. Moskona			b. Meyah		
	ocu-(er)g-es	[od͡ʒugés]	'once'	*ju-ens*	[d͡ʒuɛ́ns]	'first'
	ocu-(er)g-ak	[od͡ʒugák]	'twice'	*ju-eka*	[d͡ʒuɛ́ka]	'second'
	ocu-(er)g-om	[od͡ʒugóm]	'thrice'	*ju-omu*	[d͡ʒuomú]	'third'

2.4.3 Numeral classifiers

Both Meyah and Moskona utilize numeral classifiers in the numerals one, two and three, which are definite quantifier verbs. The numeral classifiers attach to bound numeral roots:

Moskona roots		Meyah roots	
–es	'one'	*–ens*	'one'
-ak	'two'	*-eka*	'two
–om	'three'	*–omu*	'three'

Meyah has nine categories of numeral classifiers, Moskona has eleven. There is strong morphological similarity, as well as similarity of semantic categories between Moskona numeral classifiers and the numeral classifiers evidenced within Meyah numerals. Both Moskona and Meyah numeral classifier classes evidence conflation of categories from previously existing classes. The conflation of some numeral classifier categories in Moskona is dissimilar to the conflation of morphologically-related Meyah categories, so

that a particular property categorized by a Moskona numeral classifier does not necessarily correspond to the property of the morphologically similar numeral classifier in Meyah. In order to demonstrate similarity of the numeral classifiers, those category properties which are common to both languages, along with the corresponding numeral classifier morpheme, are given in Table 4.

The disparate properties and the various categories into which they fall demonstrate the manner in which the conflations are divergent. This may be illustrated by comparisons of a few numeral classifier classes and the properties which they categorize. The Moskona numeral classifier *or-* 'NUM:7' categorizes the property 'mammal', but the numeral classifier *or-* in Meyah categorizes the broader property 'ground animals'. The nouns:turtles, lizards, and crocodiles are specified by Moskona numeral classifier *er-* 'NUM:4' which specifies the category property 'large rounded & leathery-skinned', but are specified in Meyah by the numeral classifier *or-* which categorizes 'ground animals'. The property 'stick-like', which is specified by the Meyah numeral classifier *erf-*, has been subsumed in Moskona in the numeral classifier *orj-*, which categorizes long flexible things. In Moskona, chickens are specified by *ers-* 'NUM:6' which categorizes 'winged' creatures, but in Meyah chickens are included in the broader category *or-* 'ground animals'. Meyah does not have numeral classifiers equivalent to the Moskona numeral classifiers *ed-* 'small rounded', *ort-* 'multi-furcated', and *ors-* 'grouped'.

Table 4. Numeral classifiers in Moskona and Meyah

Moskona		**Meyah**	
Numeral Classifier	Category Properties	Numeral Classifier	Category Properties
erg-	human & generic	*eg-*	human & extended surfaces
ed-	extended surfaces	--	
et-	small rounded	*ert-*	small rounded
er-	large rounded	*er-*	large rounded
erf-	thick flat	*erb-*	thick flat
--		*erf-*	stick-like
ork-	thin flat	*ork-*	thin flat
ers-	winged	*ers-*	above ground animals
or-	(large) mammals	*or-*	ground animals
orj-	scaled & long flexible	*orj-*	scaled & long flexible
ort-	multi-furcated	--	
ors-	grouped	--	

2.4.4 Sortal classifiers

Sortal classifiers in Moskona and Meyah are a finite set of generic nouns, (i.e. a subcategory of nouns), which have been grammaticalized. Although there is some overlap in category features between Moskona and Meyah, the properties which are

characterized by the sortal classifiers are divergent. Table 5 lists the sortal classifiers and the classes they categorize for Moskona and Meyah.

Table 5. Sortal classifiers in Moskona and Meyah

Moskona		**Meyah**	
ibah	HUMAN	*of-ogu*	HUMAN
efeg(a)	ANIMAL	*ef-aga*	ANIMAL
efi	FLAT	*ef-eyi*	FLAT
ewet	SOFT	*ef-ema*	TUBER
owos	VEG	*ef-ebi*	FRUIT
ebej	STONE	*of-og*	ROUND

The Moskona sortal classifier *ibah* 'HUMAN' and the Meyah sortal classifier *ofogu* 'HUMAN' classify only humans. The Moskona classifier *efeg* 'ANIMAL' classifies all non-human creatures except insects, and includes trees. The Meyah classifier *efaga* 'ANIMAL' classifies warm-blooded animals, and includes houses. Moskona classifier *efi* 'FLAT' classifies inedible flat/pliable plant matter; Meyah classifier *efeyi* 'FLAT' classifies edible leafy vegetables and fish. The classifiers for flat things in both Moskona and Meyah have usage extended to introduced items, such as paper and metal roofing. The Moskona classifiers *ewet* 'SOFT' and *owos* 'VEG' classify types of edible plant items, such as bananas, spinach, tubers, and fruit, by the degree of softness. Edible plant items in Meyah fall into a number of categories grouped by classifiers such as *efema* 'TUBER' and *efebi* 'FRUIT', which differentiate between edible plants growing above or below ground, and the Meyah classifier *ofog* 'ROUND', which classifies items which are larger, hard, and round, whether edible or inedible. The Moskona classifier *ebej* 'STONE' classifies hard spherical materials which are inedible, such as hard seeds, pits, or small stones.

Sortal classifiers in Moskona and Meyah form a classifier-numeral construction with the sortal classifier as head, following many, but not all nouns. In the classifier-numeral construction in (76), the Moskona sortal classifier *efeg* 'ANIMAL' categorizes snakes. In the Meyah classifier-numeral construction in (77), the sortal classifier *efaga* 'ANIMAL' categorizes pigs.

Moskona:
(76)   *mogos(a)* **efeg**   *ors-ka*
            snake   ANIMAL   NUM:8-two
            'two snakes'

Meyah:
(77)   *mek*   **efaga**   *or-ingka*
            pig   ANIMAL   NUM:2-two
            'two pigs'

2.4.5 Specifiers

The numeral 'one', most frequently in the generic form *erges* in Moskona and *egens* in Meyah, has the additional function in both Moskona and Meyah in introducing new participants in narrative discourse, but does not primarily indicate indefiniteness, as would an indefinite article. Thus, in both Moskona and Meyah specifiers may co-occur with a demonstrative pronoun, such as Moskona *nomi* 'that' in (78), or Meyah *koma* 'that' in (79), which marks thematic participants in narratives.

Moskona:
(78)   *Osnok **erg-es**   no-ma-i,   ofa   ahah   owos ahda.*
       person   NUM:1-one DNR-far-GIV s/he   scratch skin   itch
       'The person, he scratched his itchy skin.'

Meyah:
(79)   *gegan   eferatefa   **eg-ens**   ke-uma*
       3DUPOS infant   NUM:1-one   NOM-that
       'they (two) have a baby'

2.5 Deixis

The personal, spatial and textual deictics of Moskona and Meyah have a great deal of morphological similarity, but differ somewhat in behavioral properties. The personal deixis systems, composed of the various types of pronouns, including the pronominal prefixes, will be discussed first, followed by the spatial deictics and their textual functions.

2.5.1 Personal deixis

2.5.1.1 Personal pronouns

A number of the equivalent personal pronouns in Moskona and Meyah which are polymorphemic have similar morphological composition. Those pronouns which include the speaker, attach the spatial clitic *–ef* 'near' to a pronominal prefix, the vowels of the prefixes and clitic coalescing to yield the high vowel /i/. The dual forms, except for first person, have *–og* 'dual' as a bound root. The first person prefixes, indicating singular and plural in Meyah are reduplicated. Table 6 shows the Moskona and Meyah personal pronoun systems.

Table 6. Free personal pronouns in Moskona and Meyah

		Moskona		Meyah	
SG	1	*di-ef*	[diɸ]	*di-di-ef*	[didiɸ]
	2	*bua*		*bua*	
	3	*ofa*		*ofa*	
DU	1IN	*y-ef*	[jɛɸ]	*na-og-i-ef*	[nágiɸ]
	1EX	ø		*ma-og-i-ef*	[mágiɸ]
	2	*y-oga*		*g-oga*	
	3	*erg-og*		*g-oga*	
PL	1IN	*mif*		*mi-mi-ef*	[mímiɸ]
	1EX	ø		*me-me-ef*	[mémɛɸ]
	2	*yua*		*iwa*	
	3	*eri*		*rua*	

The Moskona reciprocal pronoun *mogum* 'each other' in (80) is a cognate of the Meyah reciprocal pronoun *moguma* 'each other' in (81).

Moskona:

(80) *eri   i-osot   mar   **mogum***
        they.PL 3PL-count thing each.other
        'they recounted the thing to each other'

Meyah:

(81) *Rua   ri-agot   **moguma***
        they.PL 3PL-say   each.other
        'They talked to each other.'

2.5.1.2 Possessive pronouns

The possessive pronouns of Moskona and the possessive pronouns of Meyah also demonstrate parallel composition. Each has a prefixal part, which is morphologically similar to the personal pronouns or pronominal prefixes which attach to inalienable nouns and verbs, plus a fragment of the prefix, and a possible verbal element which indicates possession. The Moskona pronoun *yefyen* '1DUPOS' may be parsed *yef* 'we.DU' plus *y-* 'DU' plus the verbal *en* 'have' . The present forms have fused to such a degree that the vowels are not easily explained. Meyah has an inclusive/exclusive opposition in the possessive pronouns, which Moskona does not have. A comparative list is given in Table 7.

Table 7. Possessive pronouns in Moskona and Meyah

		Moskona	Meyah
SG	1	*da-d-in*	*de-d-in*
	2	*bu-b-un*	*be-b-in*
	3	*of-on*	*ef-en*
DU	1IN	*yef-y-en*	*naf-n-an*
	1EX	ø	*maf-m-an*
	2	*yog-y-en*	*ge-g-an*
	3	*erg-en*	*ge-g-an*
PL	1IN	*mif-m-in*	*mif-m-in*
	1EX	ø	*mef-m-en*
	2	*yu-y-un*	*ye-y-in*
	3	*eri-ø-in*	*re-ri-n*

2.5.1.3 Reflexive pronouns

Moskona distinguishes exclusive and reflexive pronouns. The reflexive pronouns in Moskona also function as emphatic pronouns. The exclusive, reflective and emphatic pronominal functions are performed in Meyah by a single form, the root *esinsa*. The Meyah reflexive pronouns and the Moskona exclusive forms attach a pronominal prefix identical to the pronominal prefixes which mark subject on verbs. The dual and plural reflexive pronouns in Moskona do not distinguish inclusive and exclusive, but in the comparative lists of the exclusive and reflexive pronouns given Table 8 are listed in the inclusive category.

Table 8. Exclusive and reflexive pronouns in Moskona and Meyah

		Moskona Exclusive		Moskona Reflexive		Meyah Exclusive & reflexive	
SG	1	*di-esisok*	[disisók]	*dif-aha*	[diɸáxa]	*di-esinsa*	[disinsá]
	2	*bi-esisok*	[bisisók]	*bua-aha*	[buáxa]	*bi-esinsa*	[bisinsá]
	3	*ø-esisok*	[ɛsisók]	*ofa-aha*	[oɸáxa]	*ø-esinsa*	[ɛsinsá]
DU	1IN	*y-esisok*	[jɛsisók]	*yef-aha*	[jɛɸáxa]	*na-esinsa*	[nasinsá]
	1EX	ø		ø		*ma-esinsa*	[masinsá]
	2	*y-esisok*	[jɛsisók]	*yoga-aha*	[jogáxa]	*ge-esinsa*	[gɛsinsá]
	3	*y-esisok*	[jɛsisók]	*erg-aha*	[ɛrgáxa]	*ge-esinsa*	[gɛsinsá]
PL	1IN	*mi-esisok*	[misisók]	*mif-aha*	[miɸáxa]	*mi-esinsa*	[misinsá]
	1EX	ø		ø		*me-esinsa*	[mɛsinsá]
	2	*yi-esisok*	[jisisók]	*yua-aha*	[juáxa]	*i-esinsa*	[misinsá]
	3	*i-esisok*	[isisók]	*eri-aha*	[ɛriáxa]	*ri-esinsa*	[risinsá]

Moskona and Meyah pronouns, expressing the exclusive function with the meaning 'alone', occur immediately following the subject, such as the Moskona pronoun *esisok,* as in (82) and the Meyah reflexive pronoun *risinsa* in (83).

Moskona:
(82)   *ofa   esisok   owha jig   maekena.*
       s/he   EXPN   leave   LOC garden
       'she alone left for the garden.'

Meyah:
(83)   *Rua   ri-esinsa   ri-odou   ebriyi rot....*
       they.PL   3PL-REF   3PL-liver   split   concerning
       'They alone understood about.....'

To express the meaning 'by one's self', Moskona and Meyah have parallel constructions composed of a preposition plus a pronoun with an exclusive function, such as the Moskona preposition *jig* 'LOC' plus exclusive pronoun *esisok* in (84), or the Meyah preposition *gu* 'at' plus reflexive pronoun *bisinsa* in (85).

Moskona:
(84)   *ofa   em-eker jig   esisok   éra.*
       s/he   IRR-sit   LOC EXPN   NEG
       'he didn't stay alone/by himself.'

Meyah:
(85)   *Bua   bi-en-ah   gu bi-esinsa   guru*
       you.SG   2SG-DUR-lie at   2SG-REF   NEG
       'you (should) not be by yourself.'

A Moskona or Meyah pronouns which expresses reflexivity may have the subject only as an antecedent, such as the Moskona reflexive pronoun *ofaha* in (86), or the Meyah reflexive pronoun *esinsa* in (87).

Moskona:
(86)   *Ofa   edem   ofaha*
       s/he   hide   3SGRX
       'he hid himself'

Meyah:
(87)   *ofa   obu   esinsa*
       s/he   strike   3SGREF
       'he struck himself'

2.5.1.4 Pronominal prefixes

The pronominal prefixes which signal subject on verbs or possessor on inalienable nouns in Moskona are morphologically similar to the Meyah prefixes. Prefixes in the singular category (for all persons) are morphologically identical in Moskona and Meyah. In dual and plural categories, Meyah has an inclusive/exclusive opposition which is absent in Moskona. All forms indicating dual in Moskona have conflated to a single form *y-*, whereas in Meyah only the second and third person forms have conflated. In the plural category, the Moskona and Meyah first person forms are identical, but second and third person forms diverge, with Moskona having a consonant in the second person plural and Meyah having a consonant in the third person plural form. Table 9 illustrates these similarities.

Pronominal circumfix *em- -ima* '(to, with, from) each other', as in (88), which signals reciprocal object in Moskona is morphologically identical to the reciprocal object marker in Meyah, as in (89).

Moskona:
(88)   *Eri*   *i-**em**-ejij-**ima***
        they.P   3PL-RECIP-crowd.close
        'They crowd against each other.'

Meyah:
(89)   *Rua*   *ri-**em**-ejeka-**(i)ma***
        they.PL   3PL-RECIP-ask
        'They debate each other.'

Table 9. Prononimal prefixes in Moskona and Meyah

		Moskona	Meyah
SG	1	*di-*	*di-*
	2	*bi-*	*bi-*
	3	Ø	Ø
DU	1(IN)	*y-*	*na-*
	1(EX)	Ø	*ma-*
	2/3	*y-*	*ge-*
PL	1(IN)	*mi-*	*mi-*
	1(EX)	Ø	*me-*
	2	*yi-*	*i-*
	3	*i-*	*ri-*

2.5.2 Spatial Deixis

Moskona and Meyah have sets of spatial clitics indicating three degrees of distance from deictic center. The presence of the (still functional) visibility morphemes *i-* 'VIS' and *u-* 'NONVIS' in Moskona suggests that the Meyah proximal deictic *–if* may be a fusion of morphemes such as *i-* 'VIS' and the spatial clitic *–ef* 'near', a sequence not yet fused in Moskona. Thus, the spatial deictics *–uma* and *–unj* may be considered a fusion of *i-* 'VIS' or *u-* 'NONVIS' and *–oma* 'far' or *-onj* 'remote' ~ 'former'.

The spatial clitics in Moskona and Meyah are:

Moskona	Meyah			gloss
-ef ~ *-ka*	*-if*	<	*i-ef*	'near'
-ma	*-uma*	<	*i-oma*	'far'
-mej	*-unj*	<	*i-onj*	'remote'

In Moskona there are two degrees of elevational orientation only:upwards and across. Indication of downward orientation requires the independent locative *tesi* 'below'. The Meyah elevational clitics, which indicate the upward and downward opposition, may be fused forms, possibly composed of a visibility marker *i-* 'VIS', another morpheme *–N-* whose meaning is not identifiable, and the spatial enclitics *-da* 'above' and *-ba* 'below'.

The elevational clitics in Moskona and Meyah are:

Moskona		Meyah	
-da	'up(ward)'	*-inda*	'above'
-ba	'across'	*-imba*	'below'

In Meyah, the elevational clitics may attach to verbs or nouns, such as *mebi* 'ground' in (90a) and *ofos* 'peak' in (90b). In Moskona the elevational clitics may not attach to verbs or nouns, but rather attach to the relativizer *noga*, as in (91).

(90a) *Ofa eyja   jah mebi-**imba***   (90b) *Eyja   eifef Ikofoi ofos-**inda***
       s/he go   to ground-below   go   climb Ikofoi peak-above
       'He went to the area below.'   '(he) went [and] climbed Ikofoi
                                                  peak above.'

(91) *Dif, dadin   ayok   of(a)-ej   nog(a)=u-**ba**.*
      I   1SGPOS   mother   she-female   REL=NONVIS-across
      '[As for] me, my mother is her who is (across) over there.'

In Moskona, locative nouns are composed of the deictic nominalizer *no-* attached to the spatial clitics, as in (92a), but do not include the elevational clitics. Meyah locative nouns are composed of a locative nominalizer *si-* and a spatial or elevational clitic, as in (92b).

(92a)   Moskona   (92b)   Meyah

no-ka   'here'   *si-ef*   'here'   [siɸ]
no-ma   'there'   *si-oma*   'there'   [súma]
no-mej   'there remote'   *si-onj*   'there distant' [sund͡ʒ]
                                     si-inda   'there above'   [sínda]
                                     si-imba   'there below'   [símba]

In Moskona the spatial deictics, such as *–mej* 'remote' in (93a) and elevational clitics, such as *-ba* in (93b) may be cliticized to the relativizer *noga* to form a phonological unit, which functions as a nominal. An equivalent morphophonological form does not occur in Meyah, which requires a relative clause with a head, such as *monuh* 'place'.

(93a)   *noga=u-mej*   [nogumd͡ʒ]   'the place which is there-remote (non-vis)'
(93b)   *noga=u-ba*   [nogúba]   'the place which is across there (non-vis)'

Simple locative prepositional phrases in Moskona may be formed by the cliticizing of a spatial deictic to the generic preposition *jig* 'LOC', as in (94). The Meyah spatial deictics do not attach to prepositions.

(94)   *jig=ef*   'at here'
        jig=ma   'at there'
        jig=mej   'at there remote'

The directional verbs *eyja* 'go' and *en* 'come' in Moskona have been grammaticalized, forming directional clitics, and may attach a nominalizer prefix *m-* 'NR', as in (95), or with a visibility prefix *i-/u-*, as in (96) or cliticized to an elevational deictic *–da* 'upward' or *–ba* 'across' as a component of a relativized deictic, as in (97). In Meyah the directional verbs remain a component of a directional serial verb construction, but without a subject prefix, functioning as an adverbial, as in (98).

Moskona:
(95)   *Ofa*   *em-eyet*   ***m-en***   *se.*
        s/he   IRR-succeed NR-HITHER   certain
        'He will follow (to) here for certain.'

Moskona:
(96)   *Bua*   *bi-osra*   ***i-en***   *jef-a!*
        you.SG   2SG-enter   VIS-HITHER   DEON-PGE
        '(you should) Come in here!'

Moskona:
(97) *Bua   bi-eyta   **noga=u-ba=eyj(a)***
      you.SG   2SG-take   REL=NONVIS-across=THITHER
      'Take the one which is over there.'

Meyah:
(98) *Ri-osoka-imba   **en***
      3PL-jump-below   come/HITHER
      '(they) jumped down (to) here'

2.5.3 Textual deixis

The proximal *–ka* 'hear' and distal *–ma* 'far' spatial deictics in Moskona also function textually, but the third degree of distance *–mej* 'remote' is replaced by the textual deictic *–mis* 'former'. In Meyah all three of the spatial deictics have textual functions. Those deictics in Moskona and Meyah which function textually are:

Moskona		Meyah	
-ka	'near' / 'this'	*-ef*	'near' / 'this'
-ma	'far' / 'that'	*-oma*	'away' / 'that'
-mis	'that former'	*-onj*	'yonder / 'that former'

2.5.3.1 Demonstrative pronouns

Demonstrative pronouns are formed in Moskona by the attachment of the deictic nominalizer *no-* to a textual deictic, as in (99a). In Meyah, demonstrative pronouns are formed by the attachment of the nominalizer *ke-* to a spatial or elevational clitic, as in (99b).

(99) a. Moskona   b.   Meyah

no-ka	'this (one)'	*ke-ef*	[kɛɸ]	'this (one)'
no-ma	'that (one)'	*ke-oma*	[kóma]	'that (one)'
no-mis	'that former (one)'	*ke-onj*	[kond͡ʒ]	'that distant (one)'
		ke-inda	[kínda]	'that above (one)'
		ke-imba	[kímba]	'that below (one)'

Given information

Information which is known or given is indicated in Moskona by the suffix *–i* 'GIV' attached to a textual deictic, *-ka*, *–ma* or *–mis,* or to a demonstrative pronoun, such as *noka* in (100). Given information in Meyah requires the (free) anaphoric demonstrative *insa* 'ANAP' to precede the demonstrative pronoun, such as *kef* in (101), but *insa* does not co-occur with enclitics.

Moskona:
(100) *Medew no-ka-**i**   erá   otk-amok   eseter*.
       sago   DNR-near-GIV THM tasty-RED   more
       'This sago is really very delicious.'

Meyah:
(101) *Beda, ri-en-ef   mos-ona   **insa** ke-if*
       then   3PL-DUR-shoot foreign-man ANAP NOM-this
       'Then, they shot this foreigner.'

Contrastive focus

The Moskona deictic focus prefix *e-* 'FOC' attaches to a demonstrative, such as *noma* 'that' in (102), signaling contrastive focus. It appears to be functionally similar to the Meyah clitic *a-* 'EMP' which attaches to the anaphoric demonstrative *insa,* as in (103).

Moskona:
(102) *efer no-m(a)-i   erá   yogyen efer   **e**-no-m(a)-i*
       child DNR-far-GIV THM 2DUPOS child   FOC-DNR-far-GIV
       'the kid is your (two's) very child'

Meyah:
(103) *Me-eka   eyta mek ofon **a**-insa   ke-uma   gu   ofa*
       3SG-father give pig   tooth EMP-ANAP NOM-that to   s/he
       'His father gave that very (former) pig tooth to him.'

3.0 Noun Phrases

Noun phrases in Moskona and Meyah are left headed, with an order of possession which is possessor-possessed. The order of components of a noun phrase in Moskona and Meyah is:

        (possessor) Head (attributive) (quantifier) (relative clause) (specifier) (demonstrative)

This order may be observed in noun phrases with a verbal quantifier, such as the Moskona indefinite quantifier verb *edeses* 'many' in (104) which follows the noun *marog* and precedes the demonstrative *nomi*, or the Meyah quantifier *ofoukou* 'many' in (105) which follows the noun *moconga* 'arrow' and precedes the determiner *koma*.

Moskona:
(104) *marog   edeses   no-ma-i*
       arrow   many   DNR-far-GIV
       'the many arrows'

Meyah:
(105)   *moconga   ofoukou ke-oma*
          arrow   many   NOM-that
          'the many arrows'

An attributive modifier, such as the Moskona adjectival verb *orokec* 'large' in (106) or the Meyah adjectival verb *eteb* 'big' in (107), follows the head noun, but precedes a determiner, which signals the final boundary of the noun phrase.

Moskona:
(106)   *merga   orokec   no-ma-i*
          tree   large   DNR-far-GIV
          'the large tree'

Meyah:
(107)   *mod   eteb   ke-oma*
          house   big   NOM-that
          'the big house'

The possessor-possessed order in Moskona and Meyah may be observed in noun phrases in which a possessive pronoun, such as Moskona *ofon* '1SGPOS' in (108) and Meyah *efen* '1SGPOS' in (109), precedes the possessed item.

Moskona:
(108)   *ofon   maeken*
          3SGPOS   garden
          'his/her garden'

Meyah:
(109)   *efen   mekeni*
          3SGPOS   garden
          'his/her garden'

4.0 Prepositional phrases

The structure and composition of prepositional phrases in Moskona and Meyah are isomorphic. The primary difference lies in their inventory of prepositions. Moskona has 12 spatial prepositions, 10 non-spatial prepositions and 9 verbs which function prepositionally. Meyah has 12 spatial and 6 non-spatial prepositions with several appearing to be verbal, that is, several have the morphophonological properties of verbs.

4.1 Spatial prepositions

An inventory of the Moskona spatial prepositions with their equivalent Meyah forms are given in Table 10.

Table 10. Spatial prepositions in Moskona and Meyah

Moskona		Meyah	
jig	'LOC'	*gu/gij*	'at' / 'in'
dec	'same location as'	--	
fen	'from'	*jeska*	'from
had	'toward'	*jah*	'to(ward)
kerenga	'upon'	(*keingg*)	'upon'
kuk	'along' or (be)side'	*desí*	'next to'
ni	'at'/ 'near'	*nou*	'on'
rejrej	'around'	*rejrej*	'around'
rud	'against'	--	
rudud	'by'	*doida*	'near'
skod	'to (s.o. loc)'	*skoita*	'to (s.o. loc)
tum	'onto'	*tumu*	'onto'

The notion 'against', expressed as *rud* in Moskona, in Meyah is expressed in the phrase *ah jah gu* (lie to at) 'lies toward'. The prepositional notion 'same location as', expressed as *dec* in Moskona, in Meyah is expressed utilizing the spatial relator noun, *odou* 'front' in a phrase, such as *gu ona koma odou* (at man that front) 'in front of the man', which may be extended to mean in someone's presence.

The complement of a Moskona or Meyah spatial preposition may be a noun phrase, such as the Moskona noun phrase *moroj nomi* in (110a) and the Meyah noun phrase *moroju koma* in (110b), a locative adverb, such as the Moskona adverb *teraw* in (111a) and the Meyah adverb *skida* in (111b), or a locative noun, such as the Moskona locative noun *nomi* in (112a) and the Meyah locative noun *suma* in (112b).

Moskona:
(110a) *fen   moroj   no-ma-i*
         from   path   DNR-far-GIV
         'from the path'

Meyah:
(110b) *jeska moroju k-oma*
         from   path   NOM-that
         'from the path'

Moskona:
(111a) *jig   teraw*
         LOC   above
         '(at) above'

Meyah:
(111b) *jah   skida*
         to   above
         'to above'

Moskona: Meyah:

(112a) *jig   no-ma*   (112b) *jah   si-oma*
       LOC   DNR-far   to   NOM-that
       'at (the place) there'   'to (the place) there'

4.2 Nonspatial prepositions

The inventory of Moskona nonspatial prepositions and the equivalent forms in Meyah are given in Table 11.

Table 11. Nonspatial prepositions in Moskona and Meyah

Moskona		Meyah	
ni	'on' (specific time)	*gu*	'on' / 'at'
jida	'until' or 'up to'	--	
ni	'for'	*nou*	'for'
ten	'BEN'	--	
jug	'against'	*joug*	'against'
daka	'in aversion'	--	
jera	'with'	*jera*	'with'
gug	'to (s.o)'	*gu*	'at' / 'to'
sof	'instead (of)'	--	
rot	'with' or 'about'	*rot*	'about'

The relations expressed by Moskona nonspatial prepositions which have no prepositional equivalent in Meyah are expressed in a variety of ways in Meyah. The notion of 'until', expressed as *jida* in Moskona, is expressed with the verbal preposition *onjoros* '(go) until' in Meyah. The benefactive relation, expressed with either *ni* or *ten* in Moskona, is only expressed with *nou* in Meyah. The notion of 'in aversion to' expressed with *jug* or *daka* in Moskona, is expressed in Meyah with *joug* only. To indicate a replacive role, expressed with *sof* in Moskona, Meyah uses the transitive verb *eferwei* 'replace'.

Complements of nonspatial prepositions in Moskona and Meyah are typically (pro)nominal, such as *uska ohura* 'bare crotch', the complement of the Moskona preposition *jug* in (113), or *rufos* 'their skin', the complement of the Meyah preposition *joug* in (114). But the preposition *rot* 'about' in Moskona and Meyah may also introduce adverbs in phrases which have a manner function, such as *rot decici* in (115) and *rot doskoska* in (116).

Moskona:

(113) *Eri-ejena   sis erá   i-ok   memes **jug**   i-osk(a)   ohura.*
       they-woman past THM 3PL-bear   loinskirt against 3PL-crotch bare
       'Women of the past wore loinskirts to cover their nakedness.'

Meyah:
(114) *Ri-en-oug   mofun   egema **joug**   ri-ofos   tein   guru*
       3PL-DUR-wrap vine   other   against 3PL-skin   also   NEG
       'They didn't wrap any vines on their bodies either.' (i.e. clothe themselves)

Moskona:
(115) *Yoga   y-eker   osuj   di-ejmeg   no-kef   **rot**   **deci-ci**.*
       you.DU DU-sit   on.top.of 1SG-spine DNR-here   about slow-RED
       'You two sit on my back very carefully.'

Meyah:
(116) *Mi-en-oku   ebic **rot**   **dosk-oska** guru*
       1PL-DUR-pull   center about RED-very   NEG
       'We don't pull very hard on the center (of the plant).'

4.3 Verbal prepositions

Verbal prepositions have properties similar to that of prepositions, encoding the semantic role of a non-core argument. In contrast to verbs which function as the major verb of a predicate, verbal prepositions are not inflected or can they be negated. Those verbs in Moskona and Meyah that function prepositionally are listed in Table 12.

Table 12. Verbal prepositions in Moskona and Meyah

Moskona		Meyah	
esha	'(be) from'	--	
osuj	'on top of'	*esij*	'on top of'
eresha	'by means of'	*oisouska*	'through'
etkebra	'(be) near'	--	
éysaha	'reach' / 'up to'	*onjoros*	'up to' / 'until'
okuk	'(be) like'	*erek*	'(be) like'
orosunun	'(be) at limit'	*osókeij*	'(be) at limit'

The Moskona verbal prepositions *esha* '(be) from' and *etkebra* '(be) near' do not have verbal equivalents in Meyah, but the same prepositional notions are expressed by the analogous prepositions *jeska* 'from' and *doida* 'near' in Meyah.

Verbal prepositions, such as the Moskona verbal preposition *okuk* '(be) like' in (117) or the Meyah verbal preposition *erek* '(be) like' in (118), occur as a minor verb in a type of serial verb construction.

Moskona:

(117) *mi-osotka   eri-ej-a   tomrer **okuk** ofon   mohena*
        1PL-marry   they-female-PGE openly like 3SGPOS wife
        'we married women openly, like his wife'

Meyah:

(118) *Ge-ot   gu di-oka   koisoisa **erek** di-esinsa...*
        2/3DU-stand at 1SG-foot.print clearly   like 1SG-REF
        'Follow my example exactly (lit. stand in my footprints) as myself...'

5.0 Clausal structure

Moskona and Meyah are syntactically similar in the order and components of simple clauses. The order of clausal components in a transitive clause is:

(FRAME)(SUBJ) Verb (OBJ) (VP-ADV)(OBL)(T-ADV)(CF-ADV)

5.1 Frames

Constituents of the topic or frame position(s) in Moskona and Meyah may include a locative phrase, such as the Moskona phrase *jig mod efega nomi* in (119) and the Meyah phrase *jig suma* in (120), a temporal adverb or phrase, such as the Moskona phrase *sokomow sis* in (121) and the Meyah adverbial *ebeibeyaif* in (122), and/or a noun phrase as theme, such as the Moskona phrase *meri efi nomi* in (123) and the Meyah phrase *ogufu* in (124). A frame constituent may be marked as a thematic element by the morpheme *erá* 'THM' in Moskona, as in (121), and the topic word *berá* 'TOP' in Meyah, as in (123).

Moskona:

(119) ***Jig mod efega no-ma-i**,   i-en   maeken   romreg*
        LOC house body DNR-far-GIV 3PL-do   garden   all
        'In the yard, (they) made an entire garden'

Meyah:

(120) ***Jah si-oma,** mos-mei-ir   ri-edi   (jera) meiteb*
        to   NOM-that foreign-water-PL 3PL-strike with machete
        'At that place, the coastal ones hit (us with) machetes'

Moskona:

(121) ***Sokomow sis**   erá,   mif   mi-em-ef-ima*
        beginning past THM   we   1PL-RECIP-shoot
        'Long long ago, we shot each other (with arrows)'

Meyah:

(122) ***Ebeibeyaif*** *bera, mi-o<n>juj*   *jah mei   mojumu*
       now   TOP   1PL.IN{PERF>descend to   water ocean
       'Now, (we) descended toward the ocean'

Moskona:
(123) ***meri***   ***efi***   ***no-ma-i****,   *eri*   *i-er-ef*
       tree.leaf   leaf   DNR-far-GIV they.PL   3PL-CAUS-distribute
       'the leaves, they spread'

Meyah:
(124) ***ogufu*** *bera,   ri-ek*
       blood TOP   3SP-see
       'the blood, they saw'

5.2 Classificatory verbs

Both Moskona and Meyah employ a set of classificatory verbs, (e.g. the posture verbs) which covertly categorize nouns on the basis of animateness, humanness, and perceived physical orientation. Moskona and Meyah generally employ the same categories.

Moskona classificatory verbs:

ebah	'(a)live'	human
eker	'sit'	nonhuman and animate (small)(vertical)
ot	'stand'	nonhuman, animate/inanimate (large) vertical orientation)
ah	'lie'	non-human animate/inanimate (horizontal orientation)

Meyah classificatory verbs:

ofogu	'flesh'	human
eker	'sit'	human
ot	'stand'	non-human (vertical orientation)
ah	'lie'	non-human (horizontal orientation)

These classificatory verbs function existentially, such as the Moskona verb *ebah* in (125) and the Meyah verb *ofogu* 'flesh' in (126), which classify humans.

Moskona:
(125) *Ergog   y-en-**ebah**=kef.*
       they.DU 3DU-DUR-live=here
       'They (two) are here.'

Meyah:
(126)   *Ona   eg-ens   en-**ofogu**-uma*
          man   NUM:1-one   DUR-flesh-there
          'There was a man'

5.3 Experiential constructions

Those constructions in Moskona and Meyah which express (mostly) physiological states
and signal an uncontrolled experience, are a type of construction in which an abstract
noun, such as *moj* 'shame' in (127) and (128) is subject of the verb *en* 'do', which takes
on the meaning 'affect'. Meyah allows pronominal suffixes, such as *–id* in (128), or free
pronouns as objects in the construction. Moskona, which does not have suffixes indexing
objects, has only free pronouns as objects.

Moskona:
(127)   *Moj   en   dif.*
          shame   do   I
          'I am ashamed.'

Meyah:
(128)   *moj   en-id*
          shame   do-1SG
          'I am ashamed'

In Meyah a semi-controllable physiological states in which a non-volitional entity acts on
a volitional one (e.g. a human), such as being sick, thirsty, hungry, chilled, wet, or hot,
are expressed through the same construction as those which indicate an uncontrolled
experience, that is, the abstract noun, such as *mogon* 'thirst' in (129), fills the position of
subject of the verb *en* 'do'. In Moskona these semi-controllable states are expressed
through an intransitive verb, such as *ogorna* 'thirst' in (130).

Meyah:
(129)   ***mogon en-en***   *rua   guru*
          thirst   DUR-do   they.PL   NEG
          'they were not thirsty'

Moskona:
(130)   *Mif   mi-em-**ogorn(a)** éra.*
          we.PL   1PL-IRR-thirst   NEG
          'We are not thirsty.'

5.4 Emotional-state predicates

Both Moskona and Meyah employ emotional-state constructions extensively. Emotional-state constructions involve a body-part noun, such as the Moskona inalienable noun *oduy* 'front' in (131) or the Meyah inalienable noun *efemebi* 'heart' in (132), as the nominal constituent of a construction which encodes mental processes or emotional states.

Moskona:
(131) *Dif **di-oduy   efef**   rot   bua   nom.*
        I   1SG-front   ache   about   you.SG   VER
        'I really love you.' (front ache = love)

Meyah:
(132) *Didif **di-efemebi   agei**   rot   ofa*
        I   1SG-heart   grab   about   s/he
        'I respect him.' (heart grab = respect)

6.0 Complementation structures

Moskona and Meyah employ the same two types of complementation constructions:finite complement clauses and paratactic complements. Finite complements which introduce speech events (direct and indirect quotes) are introduced by the complementizer *ohot* 'say' in Moskona, as in the direct quote in (133), or the complementizer *oida* 'say' in Meyah, as in the direct quote in (134).

Moskona:
(133) *dif   di-odu   **ohot**,   [bi-en-owha=m-eyj(a)=o..]*
        I   1SG-tell   say   1SG-DUR-leave=NR-THITHER=EMP
        'I told (him), "you are leaving to there!"' (direct quote)

Meyah:
(134) *Ofa agot   **oida**   [didif di-en-eyja   jah mekeni   deika guru]*
        s/he say   say   I   1SG-DUR-go   to   garden   more   NEG
        'He said, "I am not going to the garden again."' (direct quote)

Mental perception predicates, expressed as emotional-state constructions in Meyah, such as *odou efeiei* 'worry' in (135), may be introduced by *oida* 'say'. Complement taking predicates (CTP) which are emotional-state constructions in Moskona require the complementizer *rot*, as in (136).

Meyah:
(135)   *Odou efei-ei* **oida** [*ojona efen   tein*]
         front RED-liquid say   woman 3SGPOS also
         '(he) worried that the woman had (one) also'

Moskona:
(136)   *Bua   bi-oduy   efi-fi   **rot**   [bi-ofjig   eri   esebra*].
         you.SG 2SG-front liquid-RED about 2SG-help they.PL continuous
         'You were anxious to help them all the time.' (front liquid = anxious)

Modality complement-taking predicates (CTP), which indicate the attitude or intent of the speaker, such as the Moskona verb *egen* 'promise' in (137) or the Meyah verb *oitij* 'agree' in (138), are introduced by the *rot* 'about' complementizer.

Moskona:
(137)   *Dif di-egen   **rot**   [di-em-engit   ni   bua   se*].
         I   1SG-promise about 1SG-IRR-make for you.SG definite
         'I promised that I would definitely do (it) for you.'

Meyah:
(138)   *Pemerintah oitij **rot** [ocunc   (nou) memef   desa   tein*]
         government agree about point.out for   we.PL.INCdgov.rep also
         'The government agrees that it choose us [for] us a representative also.'

Indirect quotes, as the complement of a modality CTP, such as the Moskona verb *eskijig* 'agree' in (139) and the Meyah verb *oitij* 'agree' in (140), require both the *rot* and *ohot/oida* complementizers.

Moskona:
(139)   *Ofa eskijig **rot** **ohot** [dif erá   di-en-eyta   mar no-ma*].
         s/he agree   about say   I   THM 1SG-DUR-take thing DNR-far
         'He agrees that I am taking that.' (indirect quote)

Meyah:
(140)   *Ge-oitij   **rot** **oida** [iwa   i-eker*]
         2/3DU-agree about COMP you.PL 2PL-sit
         'They agreed that you (pl) stay.' (indirect quote)

In Moskona and Meyah, CTPs which denote immediate (or direct) perception, such as the Moskona verb *ek* 'see' in (141) and the Meyah verb *ek* 'see' in (142) or denote manipulation (e.g. order, allow) take paratactic complements, which are not introduced by a complementizer.

Moskona:
(141)   *Dif di-**ek**   i-osnok*   [*i-em-ogow-ima jig pasar*].
         I   1SG-see 3PL-person 3PL-RECIP-chop LOC market
         'I saw people, (they) killed each other in the market.'
         'I saw people kill each other in the market.'

Meyah:
(142)   *(mif)   mi-**ek**   ri-osnok*   [*ri-en-owowa doida*]
         we.PL.INC 1PL.INC-see 3PL-person 3PL-DUR-arrive near
         'we saw people, (they) were arriving near'
         'we saw people arriving near'

7.0 Serial verb constructions

Serial verb constructions which occur in Moskona may also be found to a lesser degree in Meyah. Some SVCs which are found in both Moskona and Meyah include motion serialization, cause-effect serialization, aspectual serialization (which employs posture verbs), instrument serialization, and ambient serialization. Grammaticalization has reduced the number of SVCs in common, as the directional verbs (minor verbs in a directional serial construction in Meyah) have been grammaticalized in Moskona, and the verb *eyja* 'go' a minor verb in a inceptive serial construction in Moskona, has been grammaticalized in Meyah. Although verbal prepositions function as components of serial constructions in Moskona and Meyah, they are included in the discussion of prepositional phrases in §4.3.

Motion serialization constructions occur in both Moskona and Meyah and are composed of a motion verb and an active verb, such as the Moskona motion verb *en* 'come' and active verb *ek* 'see' in (143) or the Meyah motion verb *eyja* 'go and active verb *eji* 'dig' in (144).

Moskona:
(143)   *Bua   **bi-en**   **bi-ek**   terir   mar no-kef   koska*
         you.SG 2SG-come 2SG-see exactly thing DNR-here well
         'you came [and] examined these things well'

Meyah:
(144)   ***ri-eyja ri-eji***   *mebi*
         3PL-go 3PL-dig ground
         'they went [and] dug earth'

A directional serialization construction, composed of an active verb plus an uninflected verb of direction (i.e. come or go), still functions in Meyah, as in (145) and (146), but no longer occurs in Moskona. The directional verbs *en* 'come' and *eyja* 'go' in Moskona have grammaticalized to form units of the spatial deixis system, the directional clitics *en* 'HITHER' and *eyja* 'THITHER'. The directional clitics may be prefixed with the

nominalizer *m-*, as in (147) and (148), or with a visibility prefix *i-* 'VIS' / *u-* 'NONVIS', as in (149) and (150), and may be cliticized to the elevational bases *–da* 'upward' / *–da* 'across', as in (151) and (152).

Meyah:
(145) *ge-oksons* **en** *fog*
2/3DU-return come already
'they have already returned to here'

Meyah:
(146) *Goga* *ge-o<N>ku* *ge-ojuj=imba* **eyja** *tein*
they.DU 2/3DU<PERF>flee 2/3DU-descend=below go also
'they also fled [and] descended down to there'

Moskona:
(147) *Ofa* *em-eyet* **m-en** *se.*
s/he IRR-succeed NR-HITHER certainly
'He will follow (to) here for certain.'

(148) *Bua* *bi-eyja* *jig* *tesi* **m-eyj(a)**.
you.SG 2SG-go LOC below NR-THITHER
'Go below (to the place) over there.'

(149) *Bua* *bi-osoka* **u-en** *bi-esta* *mok*
you.SG 2SG-climb.up NONVIS-HITHER 2SG-suck pandanus
'Climb up here [and] suck (eat) pandanus'

(150) *mok* *ewek* *eweg-weg* *mow* **u-eyj(a)**
pandanus pulp dribble-RED land NONVIS-THITHER
'the pandanus pulp dribbled (to) the ground there'

(151) *Ofa* *oj* *fen* *i-da=en* *gijga*
s/he descend.into from VIS-up=HITHER only
'He just descended from above to here.'

(152) *Merga* *noga* *orokec* *erá* *en-ot* *i-ba=eyj(a)*.
tree REL big THM DUR-stand VIS-across=THITHER
'The tree that is big is over there.'

Inceptive serial constructions, composed of the verb *eyja* 'go (to)' as the minor verb plus an active major verb, as in (153), still function in Moskona. But in Meyah, the verb *eyja* 'go' has been grammaticalized, forming the inceptive prefix *ej-* 'INCEP', attached to the verb *oira* 'enter', as in (154).

Moskona:
(153)   ***i-eyja   i-ah-miy***   *jig   owoksa rot   mos   orokec*
        3PL-go.to   3PL-lie-water   LOC   subunit about   fish   large
        '(they) began to fish in the bay for large fish'

Meyah:
(154)   *Ri-**ej-oira**   gij   mei   oforga*
        3PL-INCEP-enter   in   river   delta
        'they began to cross the river delta'

In a cause-effect serialization, the first verb indicates the cause or means of the action and the second verb expresses the result, effect or endpoint of the action, such as the verb *ogos* 'die' indicates the result of the verb *ed* 'strike' in (155) or *agos* 'die' indicates the effect of *edi* 'hit' in the Meyah construction in (156).

Moskona:
(155)   *Ofa   **ed**   mes   **ogos***
        s/he   strike dog   die
        'he struck the dog [so] it died'

Meyah:
(156)   ***Edi** Saibin   **agos** fob*
        hit   Saibin   die   already
        '(s/he) hit Saibin [so] (s/he) has already died'

The posture verbs, *ot* 'stand', *eker* 'sit' and *ah* 'lie', which are morphologically identical in Moskona and Meyah, express continuous (durative) or progressive aspect in a serialization construction, as in the Moskona serial construction *iker imefifim* in (157) and the Meyah serial construction *ot agob* in (158).

Moskona:
(157)   *Ofon   m-ok-era-ir   erá   **i-eker   i-em-efif-im(a)**   sokomow...*
        3SGPOS   NR-sib.s.s.-old-PL   THM   3PL-sit   3PL-RECIP-arrange   beginning
        'His older brothers were arranged in order earlier....'

Meyah:
(158)   *mowa   **ot**   **agob** fob*
        sun   stand   strike   already
        'the sun is already beating (down on us)'

The instrument serialization construction, a distinctive of the East Bird's Head languages, is the way in which instruments are introduced into a clause in Moskona and Meyah. It is composed of a manipulative verb and its object followed by the major verb of the construction. The manipulative verbs employed, in Moskona *or* 'hold', as in (159), and in

Meyah *era* 'use', as in (160), are most likely reflexes of the same verb, as both have a meaning which involves holding or manipulating something. Their usage extends to meanings such as 'handle', 'steer', 'guide', 'procure', 'feel /touch', etc., as in the Moskona clauses *Eri i-em-or-ima* (they.PL 3PL-RECIP-hold) 'They handed (s.t.) to each other.' and *mototos or mitow*. (rust hold machete) 'The rust holds to the machete.' (The machete is rusty.)

Moskona:
(159)   *Eri   i-or   mitow   i-er-egej   merga   eferu   ok-ok*.
        they.PL 3PL-hold machete 3PL-CAUS-slit wood   segment small-RED
        'They slit small wood pieces with a machete.'

Meyah:
(160)   *Mi-era   meiteb   mi-er-eris   efen   efeji   ke-uma*
        1PL.INC-use machete 1PL.INC-INST-cut   3SGPOS hair   NOM-that
        'we cut (off) its fur with a machete'

Ambient SVCs are composed of a main verb, which carries the lexical content, plus a minor verb which in some way modifies it, such as the Moskona adjectival verb *ahaysa* 'hard' in (161) modifies *osomsa* 'clutch, or the Meyah cognate verb *ahais* 'hard' modifies the *agei* 'hold' in (162).

Moskona:
(161)   *Dif di-osoms(a) ahaysa*
        I   1SG-clutch   hard
        'I clutched (it) tightly' (lit. I clutch; it is hard)

Meyah:
(162)   *Didif di-agei   ahais*
        I   1SG-hold   hard
        'I held (it) firmly' (lit. I hold; it is hard)

8.0 Combined Clauses

Moskona and Meyah are clause conjoining languages, which primarily employ explicit linking words or phrases to join clauses. Both utilize linking elements from three categories:prepositions, verbal prepositions and conjunctions, although the functions of the elements in each category are not always parallel.

8.1 Conjunctions

Simple conjunctions in Moskona and Meyah are monomorphemic, and have almost parallel functions. Table 13 lists Moskona simple conjunctions and their functional equivalents in Meyah.

Table 13. Simple conjunctions in Moskona and Meyah

Moskona		Meyah	
dokun	'and	*noba*	'and'
erogá	'hence'	*fogora*	'cause' / 'so'
edá	'then'	*beda*	'then'
tiná	'but	*tina*	'but'
eke	'ENUM'	*ni*	'and' (enumerating)
éra	'DSJ'	*era*	'or'

The equivalent function of the Moskona simple conjunctions and Meyah simple conjunctions is illustrated in the linking of clauses by the Moskona conjunction *dokun* 'and' (163) and Meyah conjunction *noba* 'and' (164), which conjoin clauses of equal status.

Moskona:
(163) *ergog   y-og   merga, **dokun** y-os   mofun*
       they.DU DU-fold wood   and   DU-sever   vine
       'they bent (broke off) sticks and severed vines.'

Meyah:
(164) ***En-et   mat   guru   noba** eker   erek   ke-uma   ojgomu*
       DUR-eat   food   NEG   and   sit   like   NOM-that   just
       'he didn't eat the food and just sat like that.'

8.2 Prepositions and verbal prepositions as subordinators

Prepositions and verbal prepositions introduce dependent clauses in Moskona and Meyah. Table 14 illustrates those which are equivalent.

Table 14. Prepositions and verbal prepositions as subordinators

Moskona		Meyah	
--		*askesi*	'while'
daka	'lest'	--	
esha	'because'	*jeska*	'because'
jida	'until'	*onjoros*	'until'
jig	'LOC'	*gij*	'in'
jug	'lest'	*joug*	'lest'
ni	'for'	*nou*	'for'
okuk	'(be) like'	*erek*	'(be) like'
sof	'instead (of)'	--	

The Moskona temporal phrase *kus nomi/nomisi (tin)* 'that time (also)', which fills a temporal frame position in (165), is functionally equivalent to the Meyah subordinating word *askesi* 'while' in (166).

Moskona:

(165)   *ofa éysaha meregah, **kus** **no-ma-i**   mitow efeyu ociga ..*
         s/he reach midway short.span DNR-far-GIV machete immature strike.accid.
         'he was on the way (at) the time the knife struck ...'

Meyah:

(166)   *Ke-uma em-orogna **askesi** ri-efena ebah ros*
         NOM-that IRR-come.out while 3PL-spirit raw still
         'That would happen while they were still alive.'

The function of the Moskona verbal preposition *esha* 'from', as in (167), which introduces a reason by the speaker for the event of the main clause is parallel to the Meyah preposition *jeska* 'from', as in (168).

Moskona:

(167)   *Orna no-ma-i,   ofa edem ofaha, **esha** méesa i-em-ah   ofa.*
         man DNR-far-GIV s/he hide 3SGRX from enemy 3PL-IRR-hack s/he
         'The man, he hid himself, because his enemies would hack (kill) him.'

Meyah:

(168)   *Beda, eyja, **jeska** oina mat efej   fob*
         then go from cook food prepared already
         'Then, (she) left, because she had cooked the food [so] it was already prepared.'

8.3 Temporal clauses

Moskona and Meyah have a type of temporal clause which is structurally parallel to relative clauses. This type of temporal clause may be introduced in Moskona by the generic preposition *jig* 'LOC' as in (169) and (170), and in Meyah by the preposition *gu* 'at', as in (171), or the preposition *gij* 'in', as in (172). The head of the relative clause is the generic noun *mona* 'day' in both Moskona and Meyah.

Moskona:

(169)   *em-owha somus skod ofon   mosu **jig**   **mona** [**noga** ekok em-éysaha*
         IRR-leave return to   3SGPOS mother LOC day REL father IRR-reach

         néesa.]
         not.yet
         'he would return to his mother before his father arrived.' (lit. at the time that his father hadn't yet arrived.)

Meyah:

(170) *Etma en-age-geb   guru **gu mona** [**ongga** etma ke-uma   ob*
       hand DUR-RED-bend NEG   at   day   REL   hand NOM-that close.over

        fob]
        already
        'His hand will not bend at the time the hand has already healed.'

Moskona:

(171) ***Jig mona*** [*noga mas   es   oysa jog,]   edá   ofa ek   maw egak*
       LOC day   REL   rain   spray finish already then s/he see sun   leg

        ed   meren   odog.
        strike lake   chest
        'At the time the rain stopped, then he saw the sun's rays strike the lake's
        surface.'

Meyah:

(172) ***Gij   mona*** [*ongga Pendita jeska Amarika,] rua   ri-en-osoka*
       in   day   REL   pastor   from America   they.PL 3PL-DUR-come.down

        fob
        already
        'At the time that the pastor [came] from America, they had already come down'

Another type of clause signaling temporal overlap in Moskona is composed of the adverbial *kus* 'short.span' as head, followed by a restricting clause which is introduced by the relativizer *noga*, as in (173). This type is similar, but not identical in structure to temporal clauses in Meyah which are composed of a headless relative clause which is governed by the preposition *nou* 'on'/ 'at', as in (174).

Moskona:

(173) ***Kus***   [***noga** ofa   ek   mogos(a)]..*
       short.span REL   s/he   see snake
       '[At] the time that he saw the snake...'

Meyah:

(174) ***Nou*** [***ongga** mi-eyja   mi-eji*]
       on   REL   1PL.IN-go   1PL.IN-dig…
       'At (the time) that we go [and] dig…'

8.4 Complex conjunctions

Complex conjunctions in Moskona and Meyah are phrasal or polymorphemic (composed of collapsed phrases), but function as syntactic units to conjoin clauses. The Moskona complex conjunctions are listed on the left and Meyah equivalents are listed on the right.

Moskona		Meyah	
tinogurá	'but.not'	*tina guru*	'but no'
esha ni	'in order that/to'	*jeskaseda*	'in order to' (jeska-?-(b)eda)
esha edá	'therefore'	*jefeda*	'therefore' (je(ska)-beda)
éra edá	'otherwise'	--	

The Meyah equivalent of the Moskona complex conjunction *éra edá* 'otherwise' would be something like *éra beda* (or then), but this construction has not been observed in text.

The Moskona complex conjunction *esha ni* 'in order to/that', signaling the intention of the agent of the matrix clause, as in (175), is parallel to that of the Meyah conjunction *jeskaseda* 'so that' as in (176).

Moskona:
(175)   *Eri   i-ahasigen   jig mowah **esha ni** i-osnok   i-ejgen   rot*
        they.PL 3PL-expectorate LOC outside from for 3PL-person 3PL-know   about

        eri.
        they.PL
        'They expectorated outside, in order that people know about them.'

Meyah:
(176)   *Bi-agot ebeirens, **jeskaseda** di-en-eyja   jeska*
        2SG-say fast   so.that   1SG-DUR-go   from
        'Speak quickly, so that afterwards I (can) leave'

8.5 Complex linking phrases

Rather than the tail-head linkage strategy common in other Papuan languages, complex linking phrases are used in Moskona and Meyah to join sentences as syntactic units of a larger discourse. Complex linking phrases are composed of the non-spatial verbal preposition *okuk* '(be) like' in Moskona and *erek* '(be) like' in Meyah, a demonstrative pronoun, an optional focus adverb, and an optional conjunction. Table 15 shows the structure of Moskona and Meyah complex linking phrases and possible fillers of the slots in the phrase.

Table 15. Complex linking phrases in Moskona and Meyah

Moskona:

v.prep.		dem.prn		(adv)		(conj)	
okuk	'like'	*nokef*	'this'	*tas*	'again'	*edá*	'then'
		nomi	'that'	*tin*	'also'	*tiná*	'but'
		nomisi	'former'			*erogá*	'hence'
						esha edá	'therefore'

Meyah:

v.prep		dem.prn		(adv)		(conj)	
erek	'like'	*kef*	'this'	*tein*	'also'	*tina guru*	'but not'
		koma	'that'	*deika*	'again'	*beda*	'then'
						jefeda	'therefore'
						fogora	'so'
						noba	'and'

Complex linking phrases occur sentence-initial under a separate intonation contour, such as the Moskona phrase *okuk nomi edá* in (177) and the Meyah phrase *erek koma jefeda* in (178).

Moskona:
(177)   **Okuk no-ma-i   edá**, eri   i-eyja ni i-ed   most(a)
         like   DNR-far-GIV then   they.PL 3PL-go for 3PL-strike victim

         no-mis-i
         DNR-former-GIV
         'Then that having happened, they went to spear the victims....'

Meyah:
(178)   **Erek k-oma   jefeda**,   ri-en-ej-efarur   jera mos   ona-ir
         like   NOM-that therefore 3PL-DUR-INCEP-work with foreign man-PL
         'Therefore that having happened, they began working with the foreigners...'

9.0 Interrogatives

Polar questions are marked in Moskona and Meyah with a polar question marker, *–ey* 'Q' in Moskona, as in (179), and *-ei* 'Q' in Meyah, as in (180), on the final element of the sentence.

Moskona:

(179)   *Bua   erá   bi-en-ebah   no-ma-i=**ey***?
         you.SG   THM   2SG-DUR-live   DNR-far-GIV=Q
         'Are you there?'

Meyah:

(180)   *Meranghi mei   k-oma   em-agob=**ei***
         spirit   water NOM-that   IRR-strike=Q
         'Will the water spirit strike me?'

For both Moskona and Meyah, the question word in information questions takes the position of the item about which the speaker requests information, such as the Moskona question word *midá* 'what' in (181) occurs in object position, and the Meyah question word *meidu* 'what' in (182) occurs as the complement of the preposition *gij*.

Moskona:

(181)   *Bua   bi-en   **midá** no-ma-i?*
         you.SG   2SG-do   what DNR-far-GIV
         'What are you doing there?

Meyah:

(182)   *Mes-ir   ri-oga   gij **meidu***?
         dog-PL   3PL-voice in   what
         'What did the dogs bark at?'

10.0 Commands

Commands in Moskona, except for simple commands, are marked grammatically by an adverb, such as *jef* 'DEON' in (183), which occurs clause or sentence finally. Commands in Meyah are not marked grammatically, with the exception of the idiomatic use of *ojgomu* 'just', but may be strengthened with the emphatic marker *–a* 'EMP', as in (184).

Moskona:
(183)   *yua   yi-osok   i-en   **jef***
         you.PL 2PL-climb.up VIS-HITHER DEON
         'you (all) should come up here'

Meyah:
(184)   *Bi-en-eita   erek   ke-oma   guru-**a**!*
         2SG-DUR-take   like   NOM-that   NEG-EMP
         'Don't do (it) like that!'

Both Moskona and Meyah use an adverb, the focus adverb *gijga* 'only' in Moskona, as in (185), and the focus adverb *ojgomu* 'just' in Meyah, as in (186), to idiomatically mark a soft command.

Moskona:
(185)   *Bua   bi-owha   fen   mar   no-ma-i   ahacum **gijga**.*
          you.SG   2SG-leave   from   thing   DNR-far-GIV   inactive   only
          'You (should) leave that thing [so] it is inactive.'

Meyah:
(186)   *Ongga   oufa   bera,   bi-eja   jeska   monuh-if   **ojgomu***
          REL   good   TOP   1SG-go   from   place-this   just
          '(The thing) that is good, you (should) leave this place.'

Adhortatives in Moskona are expressed through syntactic construction, which is composed of the verb *ohan*, meaning something like 'join', inflected for second person, and followed by a purpose construction with a first person dual or plural subject, as in (187). Adhortatives in Meyah are expressed morphologically, by a combination of inflections on the verb, suggesting a future perfective, as in (188).

(187)   *Yua   yi-ohan   ni   mi-en   maeken.*
          you.PL   2PL-join   for   1PL-do   garden
          'Let's do (work in) the garden.'

(188)   *Mi-en-em-e<n>ja*
          1PL.IN-DUR-IRR<PERF>go
          'Let's go.' (lit. we will have been going)

11.0 Attitude markers

The polar question markers, *–ey* 'Q' in Moskona, as in (189) and *–ei* 'Q' in Meyah, as in (190), have the additional function of marking a sentence as a conjecture or to indicate speaker uncertainty.

Moskona:
(189)   *Eri   i-et   morgik,   erogá i-en-orkoh   rot   no-ma-i=**ey**.*
          they.PL   3PL-eat   matoa   hence 3PL-DUR-hoarse   about   DNR-far-GIV=Q
          'They ate matoa fruit, so (they) might be hoarse because of it.'

Meyah:
(190)   *Oina mat, beda oh   gu, tina en-et   mat guru=**ei***
          cook food   then   hand.over   to   but   DUR-eat   food   NEG=Q
          's/he cooked the food, then gave it to (him), but (s/he) might not eat it'

Although the morpheme *–i* 'PROT' to mark protesting in Moskona is morphologically identical to the Meyah *–i* 'PROT', the Moskona marker may only occur sentence-finally, as in (191). The Meyah marker may attach to other constituents of the sentence, such as the subject *didif* and the negative adverb *guru* in (192).

Moskona:
(191)   *Tiná yua   yi-em-eyta mar no-ma-i   tin gur(a)-**i**!*
         but   you.PL 2PL-IRR-take thing DNR-far-GIV also NEG-PROT
         'But you didn't even do that!' (protesting)

Meyah:
(192)   *Didif-**i** di-en-ejginaga   rot   guru-**i**!*
         I-PROT   1SG-DUR-know   about NEG-PROT
         'I didn't know about it!'

The attitude marker *–o* 'EMP' in Moskona, operating on the sentence level, functions to intensify a proposition or signals a greater degree of emotional involvement by the speaker, such as conveying urgency as in (193). It is morphologically identical to the Meyah enclitic *–o* 'EMP', which also has intensification functions, such as the intensified degree of distance in (194) or the increased intensity of the question in (195).

Moskona:
(193)   *Bua   bi-eyege=m(a)=**o**!*
         you.SG   2SG-look.at=far=EMP
         'You watch out!'

Meyah:
(194)   *Ah jah ke-imba=**o**!*
         lie at   NOM-below=EMP
         '(it) is very far down there!'

Meyah:
(195)   *Meidu   bera   en-eker=if=**o***
         what   TOP   DUR-sit=here=EMP
         'What is here?!'

The Meyah attitude marker *–a* 'EMP', which operates on the word level, intensifies a constituent of the clause, as in (196). The phoneme /a/ may be added to a lexical item in Moskona, such as the verb *ogow* 'chop' in (197a), or omitted with no change in meaning, as in (197b). (Noted as PGE in interlinear glosses.)

Meyah:
(196)   *Bua   bi-eker=**a***
         you.SG   2SG-sit=EMP
         '(you) stay (here)!'

Moskona:
(197a) *Ofa   ogow-**a**   merga* (197b) *Ofa   ogow   merga*
         s/he   chop-PGE   wood   s/he   chop   wood
         'He chopped the wood.'   'He chopped the wood.'

12.0 Swadesh List

The following is a list of Moskona and Meyah lexical items based on the Swadesh List.
Phonetic forms are included so as to demonstrate to a greater degree the similarities and
differences of the lexical forms.

	Moskona		**Meyah**	
all	*romreg*	[ɾómrɛg]	*nomnaga*	[nómnagá]
and/with	*dokun*	[dókun]	*jera*	[d͡ʒéɾa]
animal (game)	*marsa*	[maɾsa]	*marska*	[máɾská]
ashes	*mofra*	[moɸra]	*mongkoru*	[moŋkoɾú]
at	*jig*	[d͡ʒig]	*gij*	[gid͡ʒ]
back	*ejmeg*	[ɛd͡ʒmɛg]	*ejmeg*	[ɛd͡ʒmɛ́g]
bad	*oskur*	[óskuɾ]	*oska*	[oská]
bark	*merga owos*	[mɛɾga owos]	*mega ofos*	[méga óɸos]
from	*esha*	[esxa]	*jeska*	[d͡ʒɛska]
stomach	*otkon*	[ótkon]	*otkonu*	[otkonú]
big	*orokec*	[oɾokɛt͡ʃ]	*eteb*	[ɛtéb]
bird	*mem*	[mɛm]	*mem*	[mɛ́m]
bite	*eska* 'sting'	[éska]	*eska*	[éska]
black	*ahta*	[axta]	*ahta*	[áxta]
blood	*ofuga*	[oɸuga]	*ogofu*	[ogoɸú]
blow (wind)	*ofca*	[oɸt͡ʃa]	*ofc*	[oɸt͡ʃ]
bone	*oforna*	[oɸoɾna]	*ofora*	[oɸoɾá]
breathe	*oh efena*	[ox ɛɸena]	*ahamaha*	[áxamáxa]

Swadesh list

burn	merah et	[mɛɾax ɛt]	mah et	[max ɛt]
child	efer	[éɸɛɾ]	efesa	[ɛɸésa]
cloud	mar ofog	[maɾ oɸog]	mocgoj ofog	[mo͡t͡ʃgód͡ʒ óɸog]
chilled	mifirna	[miɸɪrna]	meyfina	[meɸína]
come	en	[ɛn]	en	[ɛn]
count	osot	[osót]	ofosut	[oɸosút]
cut	ersa	[ɛɾsa]	eris	[ɛɾís]
day	mona	[mona]	mona	[móná]
die	ogos	[ogos]	agos	[agós]
dig	ow	[ow]	eji	[ɛd͡ʒí]
dirty	ahtahta	[axtáxta]	ahtahta	[áxtaxta]
dog	mes	[mɛs]	mes	[més]
do	engit	[éŋgit]	otumgom	[otúmgom]
drink	et	[ɛt]	ej	[éd͡ʒ]
dried (out)	efej	[ɛɸɛd͡ʒ]	efej	[ɛɸéd͡ʒ]
dull	ofoj	[óɸod͡ʒ]	ombiya	[ombíja]
dust	mow ofuy	[mow óɸøj]	mebi ofou	[mɛbí oɸów]
ear	osuy	[ósøj]	osu	[osú]
earth/land	mow	[mow]	mebi	[mɛbí]
eat	et	[ɛt]	et	[ɛt]
egg	mem ofuy	[mɛm óɸøj]	mem ofou	[mɛ́m oɸów]
eye	eteyja	[etéd͡ʒa]	eyteyj	[etéd͡ʒ]
fall	esir	[ɛsíɾ]	esiri	[ɛsiɾí]
far	esen	[ɛsɛn]	yes	[jɛs]
fat	ewes	[éwɛs]	efes	[éɸɛs]
father	mekew	[mɛkéw]	meka	[mɛká]
fear	emesa	[ɛmésa]	emesa	[ɛmésa]
feather	efej	[éɸɛd͡ʒ]	efeji	[ɛɸɛd͡ʒí]
few	ahabnina	[áxabnína]	egekegka	[ɛgékɛgka]
fight (strike e.o.)	imedima	[imédima]	rimedima	[ɾimédima]

fire	*merah*	[mɛɾáx]	*mah*	[max]
fish	*mos*	[mos]	*mos*	[mós]
five	*ciyja*	[t͡ʃĩjd͡ʒa]	*cinja*	[t͡ʃĩnd͡ʒa]
float	*etuk*	[étuk]	*ofka*	[oɸká]
flow	*eya*	[éja]	*eyah*	[éja]
flower	*marowok*	[máɾówok]	*marfok*	[máɾɸók]
fly	*of*	[oɸ]	*ofu*	[oɸú]
fog	*mockeja*	[mot͡ʃkéd͡ʒa]	*mocgoj*	[mot͡ʃɡód͡ʒ]
foot ??	*egak*	[éɡak]	*aki*	[akí]
four	*táhgur*	[táxɡuɾ̥]	*tohkuru*	[toxɡuɾú]
front (of person)	*oduy*	[ódøj]	*odou*	[odów]
fruit	*owos*	[ówos]	*ofos*	[oɸos]
take	*eyta*	[éta]	*eyta*	[éta]
good	*oyfa*	[ójɸa]	*oufa*	[ówɸa]
grass	*marefen*	[máɾɛɸɛn]	*marfenen/mof ombra*	[máɾɸɛnɛn] / [moɸombɾá]
green / blue	*ofraha*	[oɸɾáxa]	*ofraha*	[oɸɾáxa]
guts	*efenok*	[ɛɸénok]	*otkonu efesa*	[otkonú ɛɸésa]
hair	*efeja*	[ɛɸéd͡ʒa]	*efeji*	[ɛɸɛd͡ʒí]
arm	*etma*	[étma]	*etma*	[étma]
s/he	*ofa*	[óɸa]	*ofa*	[oɸa]
head	*ebir*	[ébɪɾ̥]	*ebirfaga*	[ɛbíɾɸaɡá]
hear	*eg*	[ɛg]	*eg*	[ɛg]
heart	*efembej*	[ɛɸémbɛd͡ʒ]	*efemebi*	[ɛɸɛmɛbí]
heavy	*okum*	[ókum]	*okum*	[ókum]
here	*ji(g)kef*	[d͡ʒikéɸ]	*jah sif*	[d͡ʒáx síɸ]
beat	*obui*	[obuí]	*obu*	[obu]
hold (on)	*oruskej*	[oruskéd͡ʒ]	*agei*	[áge]
how	*tinefa*	[tíneɸa]	*teynefa*	[téɲeɸa]
hunt	*okuk*	[okuk]	*okuk*	[okuk]

husband	mahina	[maxina]	mahina	[mahiɲa]
I	dif	[diɸ]	didif	[dídiɸ]
at/on	jig	[d͡ʒig]	gij	[gid͡ʒ]
kill (chop)	ógow	[ogow]	agob	[agób]
know	éjgen	[ɛd͡ʒgɛn]	egjinaga	[ɛd͡ʒgɛnaga]
lake	meren	[mɛrén]	meren	[mɛrén]
laugh	oytut	[ójtut]	otut	[otút]
leaf	efi	[éɸi]	efei	[ɛɸejí]
left (side)	erga	[érga]	egris	[ɛgrís]
leg	egak	[ɛgák]	aki	[áki]
lie (down)	ah	[ax]	ah	[ax]
live	efena ebah	[ɛɸéna ébax]	efeni ebah	[ɛɸɛní ébax]
long	aksa	[áksa]	aksa	[áksa]
louse	meyja	[med͡ʒa]	mej	[mɛ́d͡ʒ]
man	orna	[órna]	ona	[óna]
many	ognunui	[ógnunuí]	ofokow	[oɸóków]
meat (game)	marsa	[márˢa]	marska	[márˢka]
mother	mosu	[mosú]	mosu	[mosú]
mountain	memega	[mɛméga]	meymaga	[memagá]
mouth	ohesa	[oxésa]	awesi	[awɛsí]
name	owoka	[owóka]	ofoka	[oɸoká]
narrow	okúckok	[okut͡ʃkɔk]	emeynma	[ɛméɲma]
near	etkebra	[ɛtkébra]	doyda	[dójda]
neck	orkos	[órkɔs]	orukaga	[orúkagá]
new	efena	[ɛɸéna]	efeynah	[ɛɸéɲax]
night	mot	[mot]	motu	[motú]
nose/face	osuma	[osúma]	osum	[osúm]
NEG	éra / gurá	[éra] / [gurá]	guru	[gurú]
stab	odoc	[ódut͡ʃ]	oduis	[odújs]

old / used	*efi*	[ɛ́ɸi]	*efeyey*	[ɛɸejé]
one	*erges*	[ɛɾgés]	*egens*	[ɛgéns]
(an)other	*ergem*	[ɛɾgém]	*egema*	[ɛ́gɛma]
person	*osnok*	[ósnok]	*osnok*	[osnók]
play	*ahaisen / osioma*	[axájsɛn] / [osióma]	*ahaysomu*	[axájʃomu]
pull	*okuy*	[ókuj]	*oku*	[óku]
push/ push back	*edi*	[ɛ́di]	*edei*	[ɛdeí]
rain	*mas*	[mas]	*mos*	[mos]
red/brown	*ekena*	[ɛkéna]	*ekeni*	[ɛkɛní]
correct	*decir*	[détʃɪr]	*tenten*	[tɛntén]
right (side)	*orojuj*	[oɾód͡ʒud͡ʒ]	*ognosk*	[ognósk]
river	*miy*	[mij]	*mey*	[me]
path/road	*moroja*	[moɾód͡ʒa]	*moroju*	[moɾod͡ʒú]
root	*ofom*	[óɸom]	*ofom*	[oɸóm]
vine	*mofuna*	[moɸúna]	*mofun*	[moɸún]
rotten	*emba*	[ɛ́mba]	*esemba*	[ɛsɛmbá]
rub	*os*	[os]	*os*	[os]
sand	*mebsta*	[mɛ́bsta]	*mebsta*	[mɛbstá]
say	*ohota*	[oxóta]	*agot*	[agót]
scratch	*ahah*	[áxax]	*eragrina*	[ɛ́ɾagɾina]
sea	*miy mojum*	[mij mód͡ʒum]	*mey mojum*	[me mod͡ʒumú]
see	*ek*	[ɛ́k]	*ek*	[ɛ́k]
seed/dried thing	*efej*	[ɛ́ɸɛd͡ʒ]	*efej*	[ɛɸéd͡ʒ]
sew	*ob/ow*	[ow]	*eb*	[ɛb]
sharp	*efietka*	[ɛɸiétka]	*efeya*	[ɛɸéa]
short	*etkebra/esta mug*	[ɛtkébɾa] / [éstamug]	*estir*	[ɛstɪr]
sing	*of*	[oɸ]	*of*	[oɸ]

sit/stay	eker	[ɛkéɾ]	eker	[ɛkéɾ]
skin	owos	[ówos]	ofos	[oɸos]
sky	meybaga	[mebága]	meybaga	[mebagá]
sleep	ah jig	[áx d͡ʒig]	ah jah/ahca	[áx d͡ʒax] / [áxt͡ʃa]
small	oskay	[oskáj]	oskayai/ofokai	[oskijáj] / [oɸokáj]
smell	emsa	[émsa]	eg	[ɛg]
smoke	merah ofog	[mɛɾáx óɸog]	mah efeb	[max ɛɸéb]
smooth	oworsa	[owóɾsa]	orswos	[oɾswos]
snake	mogosa	[moɡósa]	magosu	[magosú]
some	enia	[ɛnía]	eneya	[ɛnéa]
spit	osrof	[ósɾoɸ]	os	[os]
split	ebri	[ébɾi]	ebriyi	[ɛbɾijí]
squeeze	ebda	[ébda]	esingh	[ɛsíŋgx]
stand	ot	[ot]	ot	[ot]
star	motur	[mótuɾ]	motur	[motúɾ]
stick	mockur	[mót͡ʃkuɾ]	moskur	[móskuɾ]
stone	mogoma	[moɡóma]	mamu	[mamú]
straight	ohurka	[oxúɾka]	aharuka	[axaɾuká]
suck	ef	[ɛɸ]	efa	[ɛɸá]
sun	maw	[maw]	mowa	[mówa]
swell	esejga	[ɛséd͡ʒga]	efifij	[ɛɸíɸid͡ʒ]
swim (stir water)	era miy	[éɾa mij]	era mei	[éɾa me]
tail	oyrega	[ojɾéga]	oiraga	[ojɾága]
that	nomi	[nóma]	koma	[kóma]
there (up)	ida	[ída]	inda	[inda]
they (PL)	eri	[éɾi]	rua	[ɾúa]
thick	ewek	[éwɛk]	ontumba	[ontúmba]
thin	ahabnuk	[áxabnúk]	ahanuka	[axanuka]
think	orusohta	[oɾusóxta]	osujohu	[osud͡ʒoxú]

this	(no)kef	[nókɛɸ]	kef	[kɛɸ]
thou	bua	[búa]	bua	[búa]
three	ergom	[ɛrgóm]	ogomu	[ogomú]
throw/toss	eyj	[ed͡ʒ]	eij	[ed͡ʒ]
tie	ahac	[áxat͡ʃ]	akid	[akíd]
tongue	ornoj	[órnod͡ʒ]	arni	[arní]
tooth	ofon	[oɸon]	ofon	[oɸon]
tree	merga	[mɛ́rga]	mega	[mɛ́ga]
turn	ekikif	[ekíkiɸ]	ekikif	[ɛkíkiɸ]
two	ergak	[ɛrgák]	egeka	[ɛgɛ́ka]
vomit	ahamow	[áxamow]	meysohu	[meʃóhu]
walk	ecira	[ɛt͡ʃíra]	ecira	[ɛt͡ʃíra]
warm	ofufom	[oɸúɸom]	ofowfem	[oɸowɸɛ́m]
wash	ot	[ot]	ot	[ot]
water	miy	[mij]	mey	[me]
we (PL)	mif	[miɸ]	mimif	[mimiɸ]
wet (moist)	etefa	[ɛteɸa]	etefa	[ɛtɛɸa]
what	midá	[midá]	meydu	[medu]
when	echa	[ɛt͡ʃxa]	ecgaho	[ɛt͡ʃgaxo]
where	hádefa	[xádɛɸa]	sinefa	[sínɛɸa]
white	efsa	[éɸsa]	ebsi	[ɛbsi]
who	ida	[ída]	idu	[ídu]
wide	otoh	[ótox]	efefi	[ɛɸɛɸi]
wife	mohena	[moxɛ́na]	mohona	[moxóna]
wind	mafif	[máɸiɸ]	mof	[moɸ]
wing	efémbra	[ɛɸɛmbra]	efembra	[ɛɸɛmbra]
wipe	osun	[ósun]	osunu	[osunu]
with	jéra	[d͡ʒɛra]	jéra	[d͡ʒɛra]
woman	ejéna	[ɛd͡ʒɛna]	ojóna	[od͡ʒona]
woods	merembra	[mɛrémbra]	merembrah	[mɛrɛmbrax]
worm	mogosga	[mogósga]	mofunfou	[moɸunɸow]

Appendix B
Texts

This appendix provides ten complete texts by several speakers to illustrate a number of the structures and functions described in the preceding grammar. All texts are primarily narrative, but contain within them some elements of procedural and hortatory discourse.

Text 1: Women give birth

This text, given in Sentani by Edison Orocomna on October 5, 1995 is about Moskona birthing practices.

Synopsis:

In the past, women gave birth to babies in a small hut built by the woman's husband. Because any blood which comes from a woman's vagina is taboo for men, men do not come in contact with it or even want to see it. So, women gave birth in this separate structure with only other women attending her. The hut, which is usually built in the same clearing as the main house, was built on the ground so that a leaf-lined depression could be made for the baby to "fall into". The birth position was squatting over the depression in the ground, supported by other women. The woman entered the birthing hut when she experienced labor pains. Nettle leaves and pineapple leaves are pressed or scraped across her skin to create a "counter-effect" to labor pain. The umbilical cord was traditionally cut with a freshly made bamboo knife. The upward or downward direction of the cut corresponded to the sex of the child. The woman remained in the hut for at least a month after the baby's birth.

1.　　　*Eri　　i-ejen(a　　i-odog　　　jig,　　edá,　　of(a)-es　　or　　　mod*
　　　　they.PL　3PL-woman　3PL-pregnant　LOC　　then　　s/he-male　build　　house

　　　　efeyu　　　ni,　　edá　　of(a)-ej　　em-ok　　efer　　　jig.
　　　　immature　for　　then　　s/he-female　IRR-bear　child　　LOC
　　　　(If/when) they women are pregnant, then, he builds a small house, for (her), then she will give birth in (it).

2.　　　*Edá,　　ofa　　eti　　　　efef,　　otigeja　　　eker.*
　　　　then　　s/he　feel.pain　ache　stand.up　　sit
　　　　Then, she feels [labor] pains [and] (she) straightens upright [and] sits.

3. *Edá, eri i-or mecif i-er-or otkona.*
   then they.PL 3PL-hold nettle.leaf 3PL-CAUS-hold intestines
   then, they touch her intestines (belly) with nettle leaves.

4. *Ejena em-ok efer em-oj, ok efer ahaw.*
   woman IRR-bear child IRR-descend bear child go.down
   The woman would bear the baby [so] it would descend, (she) bears the child [so] she squats.

5. *Edá, i-eyja i-eki mekrew.*
   then 3PL-go 3PL-cut.bamboo bamboo.knife
   Then, (they) go [and] cut a bamboo knife.

6. *Edá, i-eyja i-er-ers(a) eswoj.*
   then, 3PL-go 3PL-CAUS-slice navel
   Then, (they) begin [and] cut the navel (umbilical cord).

7. *I-er-ers(a) osoka, edá of(a)-ej, ahaw, edá of(a)-es.*
   3PL-CAUS-slice climb.up then s/he-female descend then s/he-male
   [if] they cut it [in an] ascending (motion), then [the child is] female; [if in a] descending (motion), then [the child is] male.

8. *Edá i-eyja i-os megigra, mofiki, i-en i-efe merah*
   then 3PL-go 3PL-sever pineapple parasite.vine 3PL-do 3PL-lay fire
   Then, (they) go [and] sever pineapple, parasite vine, (they) make [and] lay a fire.

9. *Edá, i-er-efet efer ohur no-ma-i.*
   then 3PL-CAUS-swab child bare DNR-far-GIV
   Then, (they) swab the newborn. (bare child = newborn)

10. *Megigra i-er-os of-ejena owos efef.*
    pineapple 3PL-CAUS-move.horiz. s/he-woman skin ache
    Pineapple (leaves) are used to rub the woman's skin (body) [so] it hurts.

11. *Edá, eker kerenga mesta okes erg-es jig mod efeyu*
     then sit upon month entire NUM:1-one LOC house immature

     no-mis-i ofog[60],edá em-osok mod, edá eker rot mod.
     DNR-former-GIV first then IRR-climb.up house then sit about house
     Then after (she) rests for one whole month in that small [birthing] house, then
     (she) goes up into the (regular) house, then lives in the house. (sit upon = rest)

12. *Osruk[61].*
     match.up
     That's all.

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[60] The form *ofog* is alternative to *roga* 'first'.

[61] The verb *osruk* is an alternative form for *edegejga* 'match up'.

Text 2: How tinder was made

This text was given in Sentani by Edison Orocomna on March 29, 1996.

Synopsis:

Before the introduction of matches, Moskona people made tinder from fan palm chips, as a starter for fires. The part of a palm branch closest to the trunk was chipped into small pieces, then dried out using heated leaves. The tinder was then stored in prepared bamboo tubes. To make a fire, shards of earthenware plates were struck together, creating sparks which ignited the tinder.

1. *Eri-orna   dokun eri-ejena   sis, jig Moskona   sokomow erá,*
    they.PL-man and   they.PL-woman past LOC Moskona   beginning THM

    eri   i-engit   merah fen   mogug.
    they.PL 3PL-make fire   from tinder
    Men and women of the past, in the Moskona (tribe) of long ago, they made fire from tinder.

2. *Eri   i-ersa   medeg i-eba   mebgif   efef   rot   mogug.*
    they.PL 3PL-slice bamboo 3PL-break.off fan.palm flap   about   tinder
    They cut bamboo [and] broke off fan palm branches for the tinder.

3. *Eri   i-egirna toktok   jida etew.*
    they.PL 3PL-scrape bit.by.bit until   much
    They scraped [small chunks] off a bit at a time, until there was a lot.

4. *Edá, eri   i-ohsud   meri   efi noga otoh.*
    then   they.PL 3PL-search   tree.leaf leaf REL   wide
    Then, they searched for tree leaves which were wide.

5. *Edá, meri   efi no-ma-i,   eri   i-er-ef   ni   merah*
    then   tree.leaf leaf DNR-far-GIV they.PL 3PL-CAUS-distribute   at   fire

    jida   aharga.
    until   dry
    Then, the leaves, they spread near the fire until they were dry.

6. *Edá, eri   i-oku   meri   efi no-ma-i   jig merah, edá   efena.*
    then   they.PL 3PL-burn tree.leaf leaf DNR–far-GIV LOC fire   then   heated
    Then, they heated the leaves on the fire, then they were hot.

7.   *Eri   i-ora   ni   mogug   no-mis-i   jida   mogug   no-ma-i*
     they.PL   3PL-hold for   tinder DNR-former-GIV   until tinder   DNR-far-GIV

     aharga.
     dry
     They held the leaves on the tinder, until the tinder was dry.

8.   *Edá,   eri   i-os   jig   medeg-a   noga eri   i-esah-owos*
     they   they.PL   3PL-smash LOC   bamboo-PGE REL   they.PL   3PL-put-group

     rot=mis-i.
     about=former-GIV
     Then, they tamped (the tinder) into the bamboo tube which they had prepared
     for (it).

9.   *Edá,   eri   i-etka   mester mogom efeybra osk-ok,   ni   eri*
     then   they.PL   3PL-split   plate   stone   shard   small-RED for they.PL

     i-or-a   jera   mogug   no-ma-i,   edá   i-eges.
     3PL-hold-PGE   with   tinder   DNR-far-GIV   then 3PL-chisel
     Then, they split a stone (earthenware) plate [so] it was small shards, so they
     [could] use it with the tinder, then strike (to start a fire).

10. *Edá,   merah   noga fen   mogug   dokun mester   mogom no-ma-i*
     then   fire   REL   from   tinder   and   plate   stone   DNR-far-GIV

     ewisa   jog.
     flame   already
     Then, the fire (spark) which was from the tinder and the stone place flamed
     up.

11. *Edegejga.*
     match.up
     That's all.

Text 3: Tree houses
This text was given by Edison Orocomna on March 25, 1996.

Synopsis:

In times past, when life was less secure, Moskonas lived in houses built up in the spreading boughs of ironwood or banyan trees. When people wanted to build a house in a tree, they searched the forest for trees whose boughs were arranged to support a house. When a tree had been chosen, the area immediately below it was cleared of brush, then poles were cut to form the frame of the house. A scaffold was affixed to the tree's trunk for ease of access during building. House-building was usually a project requiring the effort of a number of people, so clan members were pressed into service. While the men constructed the house, the women planted a garden. The usual amount of time required to construct a house was an entire month.The completion of the house was a cause for celebration, so before the various helpers returned home, there was dancing and feasting.

1.   *Dif di-osot-a   mar   rot   eri-orna   sokomow jig Moskona*
        I   1SG-count-PGE thing about they.PL-man beginning LOC moskona

        sokomow noga i-em-or   mod   miy   néesa   erá   eri
        beginning REL   3PL-IRR-build house water not.yet THM   they.PL

        i-ebah   jig   mowah ros.
        3PL-live   LOC   outside still
        I'm recounting about the men of long ago in the Moskona area in former times who before they built houses on the ground, they still lived out in the jungle.

2.   *Edá eri-orna   jerá eri-ejena   i-ecira   i-ek   merga noga*
        then   they.PL-man with   they.PL-woman 3PL-walk 3PL-see wood   REL

        edegejga, mer   éra moj,   i-ek   noga está oyfa-mofa.
        match.up   ironwood DSJ banyan 3PL-see REL   fork good-RED
        Then, men [along] with women traveled around [and] saw trees which were suitable, ironwood or banyan trees, they saw ones which had nice spreading boughs.

3.   *Edá, eri   i-en   mar   esha oysa-mosa.*
        then   they.PL 3PL-do thing from finish-RED
        Then, they did away (cleared the brush) completely.

4.   *Edá,   eri   i-og   merga   oforga, i-og   merga   ni   eri*
      then   they.PL 3PL-bend   wood   dried   3PL-bend   wood   for they.PL

      i-or-a   mod tum   merga está   no-mis-i.
      3PL-build-PGE   house onto wood   fork   DNR-former-GIV
      Then, they bent (to break off) soft saplings, cutting poles for them to build a
      house upon the boughs of the tree.

5.   *Edá,   eri   i-og   merga   oys-amosa.*
      then   they.PL 3PL-bend   wood   finish-RED
      Then, they bent wood (poles) [so] it was completely finished.

6.   *Edá,   eri   i-ahac merga   osok   tum   merga   no-mis-i,*
      then   they.PL 3PL-tie wood   climb.up onto   wood   DNR-former-GIV

      edá i-osok   i-or   mod jig moj-a   está   éra   mera
      then 3PL-climb.up 3PL-build house LOC ironwood-PGE fork   DSJ   banyan

      está.
      fork
      Then, they tied the poles [so] they [could] climb up those trees, then they
      went up [and] built the house on the boughs of the ironwood or banyan tree.

7.   *Edá,   eri   i-or-a   mod no-ma-i   jig   mesta   okes*
      then   they.PL 3PL-build-PGE   house DNR-far-GIV LOC   month   whole

      erg-es,   erogá mod no-ma-i   em-oysa-mosa.
      NUM:1-one hence house DNR-far-GIV IRR-finish-RED
      Then, they built the house for an entire month, so [then] the house would
      be completed.

8.   *Oysa-mosa,   edá,   eri   i-oduy.*
      finish-RED   then   they.PL 3PL-front
      [When] it was finished, then they fronted (walled) it.

9.   *Edá,   eri   i-os   medef, i-okuy   erin   uasir   ni*
      then   they.PL 3PL-sever sago   3PL-pull.out 3PLPOS   companions for

      i-ed   medef, i-ed   medef em-oysa-mosa.
      3PL-weave   sago   3PL-weave sago   IRR-finish-RED
      Then, they cut sago (branches), drew upon their companions to weave sago, to
      weave sago (branches) [so] the sago [thatch] would be completed.

10.   *Edá,   eri   i-or-a   medef   no-ma-i   i-er-oko   mod*
      then   they.PL 3PL-hold-PGE sago   DNR-far-GIV 3PL-CAUS-thatch house

      no-mis-i,   i-oko   mod no-ma-i   i-em-oys-amosa.
      DNR-far-GIV 3PL-thatch house DNR-far-GIV 3PL-IRR-finish-RED.
      Then, they thatched the house with the sago leaves [and] thatched the house [so]
      it would be completed.

11.   *Edá,   eri-ejena   romreg i-oyna   mok(ta),   merefa, mesi, meni,*
      then   they.PL-woman all   3PL-cook pandanus   greens taro bananas

      muy   ni eri   noga i-oko   mod no-ma-i,   ni   eri
      sweet.potato for they.PL REL   3PL-thatch house DNR-far-GIV for they.PL

      i-et   daka i-osorna.
      3PL-eat   avert 3PL-hunger
      Then, the women all cooked pandanus, greens, taro, bananas, sweet potatoes for
      those who were thatching the house to eat, lest they be hungry.

12.   *Edá,   mod efega no-ma-i,   eri   i-en   maeken.*
      then   house body DNR-far-GIV they.PL 3PL-do   garden
      Then, [in] the yard of the house, they made a garden. (house body = yard)

13.   *Jig mod efega no-ma-i,   i-en   maeken romreg rot   mesi, ér(a)-ey*
      LOC house body DNR-far-GIV 3PL-do garden   all   about taro   DSJ-Q

      moma, ér(a)-ey meni,   ér(a)-ey muy,   ér(a)-ey meref, ér(a)-ey
      cassava DSJ-Q   banana   DSJ-Q   sweet.potato DSJ-Q   greens DSJ-Q

      mok(ta).
      pandanus
      In the yard of the house, (they) made an entire garden, whether with taro, or
      cassava, or bananas, or sweet potatoes, or greens, or pandanus.

14.   *Edá,   mar no-ma-i   romreg efem, edá eri   i-et-a*
      then   thing DNR-far-GIV all   tuber then   they.PL 3PL-eat-PGE

      oys-amosa.
      finish-RED
      Then, [when] all those things were (filled out) tubers (ripe), they ate it all up.

15. *Edá   mod no-ma-i   efi,   eri   i-ahada   mod no-ma-i*
     then   house DNR-far-GIV worn   they.PL 3PL-dismantle house DNR-far-GIV

     tas.
     again
     Then, [if/when] the house was worn out, they again dismantled the house.

16. *Edá, eri   i-eyja i-or   mod jig merga or-i-om   tas.*
     then   they.PL 3PL-go 3PL-build house LOC wood   NUM:7-?-CST again
     Then, they went again [and] built a house in another tree.

17. *Merga or-i-om   no-ma-i,   eri   i-en   mar   esha.*
     wood   NUM:7-?-CST DNR-far-GIV they.PL 3PL-do thing from
     The other tree, they worked (cleared brush) away from.

18. *Edá, eri   i-osok   i-or   mod jig merga está no-ma-i.*
     then   they.PL 3PL-climb.up 3PL-build house LOC wood   fork   DNR-far-GIV
     Then, they went up [and] built a house in the spreading tree branches.

19. *Edá, eri   i-eyj   mesiga eges jig éysaha jig   mow*
     then   they.PL 3PL-toss ladder high LOC reach   LOC   land

     u-m(e)j-a.
     NONVIS-remote-PGE
     Then, they tossed a long ladder at (the tree) [so] it reached to the ground below.

20. *Edá, mafif éysaha en mod no-ma-i   eyrir-a   rot   eri.*
     then   wind   reach   do house DNR-far-GIV vibrate-PGE   about they.PL
     Then, the wind arrived [and] caused the house [so] it swayed with them (in it).

21. *Edá, eri-ejena   dokun i-eferiok   i-ok   jig mow, esha eri*
     then   they.PL-woman and   3PL-sm.child 3PL-flee LOC land   from they.PL

     i-emesa rot   mafif em-ed   mod no-ma-i   rot   eri   roga,
     3PL-fear about wind   IRR-strike house DNR-far-GIV about they.PL first

     mod em-esim   rot   eri.
     house IRR-fall.over about they.PL
     Then, women and small children fled to the ground, because they were afraid
     that after the wind would strike the house with them (in it), the house would fall
     over with them (in it).

22. *Edá,   mod   no-ma-i   ofon   ofuy   ni   eri   noga   i-ef*
     then   house DNR-far-GIV 3SGPOS   function for they.PL REL   3PL-shoot

     mosta, edá   i-ok   i-osok   i-oyka   jig mod   no-ma-i.
     prey   then 3PL-flee 3PL-climb.up 3PL-dance   LOC house DNR-far-GIV
     Then, the house had the use for them who shoot prey, then they fled [and] went
     up [and] danced in that house.

23. *I-osnok   meren i-osoka   i-oyka   jig mod   no-ma-i   jida   mesta*
     3PL-person lake   3PL-climb.up 3PL-dance   LOC house DNR-far-GIV until month

     erg-es,   es(h)a-roga oysa-mosa,   es(h)a-roga em-oys-amos(a).
     NUM:1-one   from-first   finish-RED   from-first   IRR-finish-RED
     A lot of people went up [and] danced in the house up to one month, so [then] it
     was finished, so it would have been finished.

24. *Edá,   eri   i-esu-a   mar   m-ef-im(a)   rot,   edá*
     then   they.PL 3PL-open-PGE thing RECIP-trade about then

     i-em-ahad(a)-ef   toktoga.
     3PL-IRR-dismantle-near   various.places
     Then, they open stuff in turns (have a party) as a result, then they would
     disperse to wherever.

25. *Tiná, kus   no-kef-a,   eri-orna   romreg i-em-or   mod*
     but   short.span DNR-here-PGE   they.PL-man   all   3PL-IRR-build   house

     jig merga está no-ma-i   tas   éra.
     LOC wood   fork DNR-far-GIV   again NEG
     But, nowadays, all men don't build houses in the tree boughs any longer.

26. *Kus   no-kef-a   erá,   eri   romreg i-ahaw   fen*
     short.span DNR-here-PGE   THM   they.PL all   3PL-climb.down   from

     mod   eges, esha   Tuhan[62] Ara   ogá   em-okuy   eri   romreg
     house long   from   Lord   God   speech IRR-pull.out they.PL   all

     fen   mod   eges   no-ma-i.
     from   house high   DNR-far-GIV
     Nowadays, everybody [has] come down from the high houses, because God's
     words draw all of them from the high houses.

---

[62] *Tuhan* 'Lord' is borrowed from Malay.

27.   *Edá,   eri   i-or-a   mod   miy   jera   mow, edá   romreg*
       then   they.PL 3PL-build-PGE house water with   land   then   all

       i-ebah-a   owos.
       3PL-live-PGE   group
       Then, they built water houses with land, then (they) all live in groups.
       (water house = house built on the ground near a river or stream)

28.   *Esha noga sokomow erá,   i-erg-em   i-es(is)ok   jera   ofon*
       from   REL   beginning THM   3PL-NUM:1-CST 3PL-EXPN   with   3SGPOS

       mohena dokun   ofon   i-eferiok   romreg i-ebah-a   mow   ed-em.
       wife   and   3SGPOS 3PL-sm.child all   3PL-live-PGE   land   NUM:2-CST
       The reason [for this] is long ago, one of them alone with his wife and all his
       small children lived in a [separate] location.

29.   *Okuk no-ma-i   edá,   ofa erg-em   tin esisok   ebah jig ofon*
       like   DNR-far-GIV   then   s/he NUM:1-CST also EXPN   live   LOC 3SGPOS

       mow   ed-em   tin.
       land   NUM:2-CST   also
       Then that being so, another person also was alone [and] also lived in his separate
       location.

Text 4: Snake capture

This short text was given by Edison Orocomna on January 22, 1996.

Synopsis:

Snakes are not ordinarily hunted, but when discovered, they are killed and their flesh may be eaten for meat. (Obviously, the snake must be a large one.) After being killed, the snake was transported back to the village to be gutted and cleaned, then cooked in a bark container for consumption by men. Snake meat is taboo for all but adult men.

1. *I-osnok   i-ecira   jig mowah, edá   eri   i-er-od*
    3PL-person 3PL-walk   LOC outside then   they.PL 3PL-CAUS-accid.strike

    mogos, edá   eri   i-osusuy.
    snake   then   they.PL 3PL-startle
    [When/if] people walked in the forest, they accidently came upon a snake,
    then they were startled.

2. *Edá, eri   i-or-a   mitow, edá   i-er-ah-a   mogos(a)*
    then   they.PL 3PL-hold-PGE   machete then 3PL-CAUS-hack-PGE snake

    no-ma-i   ogos.
    DNR-far-GIV   die
    Then, they used a machete, then (with it) hacked up the snake [so] it
    died.

3. *Edá, eri   i-ahac mogos(a) no-ma-i.*
    then   they.PL 3PL-tie snake   DNR-far-GIV
    Then, they tied up the snake.

4. *Eri   i-ok   i-owha   rot   jig mod, edá   i-egeja*
    they.PL 3PL-bear 3PL-leave about LOC house then   3PL-slit.open

    oys-omusa.
    finish-RED
    They carried (it) [and] went with (it) to [their] house, then gutted it
    completely.

5. *Edá, eri   i-oyna jig mosha   jida   efieyja.*
    then   they.PL 3PL-cook LOC k.o.tree until   ready.to.eat
    Then, they cooked (it) in a *mosha* (bark container) until it was ready to eat.

6.   *Edá, eri-orna   gijga erá   i-en-et,   tiná   eri-ej-a   dokun*
      then   they.PL-man only   THM   3PL-DUR-eat but   they.PL-female-PGE and

      i-eferiok   noga eri-es   erá   i-em-et   éra.
      3PL-sm.child REL   they.PL-male THM   3PL-IRR-eat   NEG
      Then, the (adult) men only eat (it), but women and small male children do
      not eat (it).

Text 5: The cockatoo and the parrot

This story, given by Sius Orocomna in September 2000, allegedly gives the reason behind the eating habits of parrots and cockatoos. It is a story told to children to teach the cultural value of assisting those who ask for help and the consequences of not doing so.

Synopsis:

The parrot and cockatoo lived together (indicating that they were clan members or somehow allied with each other). The food gathering and preparation project in which the parrot was involved normally required assistance, but at each stage of the preparation, the cockatoo was not inclined to provide assistance. As a result, he was not allowed by the parrot to have any of the prepared food and also suffered the anger of the parrot.

1.   *Sokomow, kus   noga mahti   erá,   memned dokun   mohus   erá,*
        beginning short.span REL   legend THM   cockatoo and   parrot   THM

        ergog   y-ebah jig   mod erg-es.
        they.DU DU-live LOC   house NUM:1-one
        Long ago, during legendary times, the cockatoo and the parrot, they lived in a house.

2.   *Ergog   y-eyja ni y-ob   mok.*
        they.DU DU-go for DU-pluck pandanus
        They went to pick pandanus.

3.   *Okuk no-ma-i   edá,   mohus, ofa ohot gug memned, Bua*
        like   DNR-far-GIV then   parrot   s/he say   to cockatoo   you.SG

        bi-og   merga   ni mi-er-ob   mok.
        2SG-bend wood   for 1PL-CAUS-pluck   pandanus.
        Then that being so, the parrot, he said to the cockatoo, "Break off a stick for us to pick pandanus with."

4.   *Tiná, memned, ofa   odow.*
        but   cockatoo s/he   disinclined
        But, the cockatoo, he was disinclined (to help).

5.   *Edá, mohus ofaha eyja, edá   og   merga.*
        then parrot 3SGRX go   then bend wood
        Then, the parrot himself went, then bent (broke off) a stick.

6.   *Edá,   mohus   oduk   memned   ni   ob   mok,   tiná   memned,*
      then   parrot   order   cockatoo   for   pluck   pandanus   but   cockatoo

      ofa   odow.
      s/he   disinclined
      Then, the parrot told the cockatoo to pick the pandanus, but the cockatoo, he
      was disinclined.

7.   *Edá,   mohus   ofaha   ob   mok,   edá   ecira.*
      then   parrot   3SGRX   pluck   pandanus   then   walk
      Then, the parrot himself picked the pandanus, then walked (on).

8.   *Edá,   mohus   oduk   memned   ni   etka   mok   owok(a),   tiná*
      then   parrot   order   cockatoo   for   split   pandanus   fruit   but

      memned,   ofa odow.
      cockatoo   s/he disinclined.
      Then, the parrot told the cockatoo to split the pandanus, but the cockatoo, he
      was disinclined.

9.   *Edá,   mohus   oduk   memned   orka   mok,   tiná   memned,   ofa*
      then   parrot   order   cockatoo   carry   pandanus   but   cockatoo   s/he

      odow.
      disinclined
      Then, the parrot told the cockatoo to bring the pandanus, but the cockatoo, he
      was disinclined.

10.   *Edá,   mohus,   ofa orka   mok,   edá   éysaha   jig   mod.*
      then   parrot   s/he carry   pandanus   then   reach   LOC   house
      Then, the parrot, he carried the pandanus, then arrived at the house.

11.   *Edá,   mohus,   ofa oduk   memned   ni   ok   mergej,   tiná   memned,*
      then   parrot   s/he order   cockatoo   for   bear   firewood   but   cockatoo

      ofa   odow.
      s/he   disinclined
      Then, the parrot, he told the cockatoo to bring the firewood, but the cockatoo, he
      was disinclined.

12.   *Edá,   mohus, ofa   ok   mergej*.
then   parrot s/he   bear   firewood
Then, the parrot, he brought the firewood.

13.   *Edá,   mohus oduk memned ni oku   merah, tiná memned, ofa*
then   parrot order cockatoo for burn fire   but   cockatoo s/he

odow.
disinclined
Then, the parrot told the cockatoo to get a fire going, but the cockatoo, he was
disinclined.

14.   *Edá,   mohus ofaha   oku   merah*.
then   parrot 3SGRX burn   fire
Then, the parrot himself got the fire going.

15.   *Edá,   mohus oduk memned   orka miy,   tiná memned,   ofa odow*.
then   parrot   order cockatoo   carry water but cockatoo   s/he disinclined
Then, the parrot told the cockatoo to bring water, but the cockatoo, he didn't
want to.

16.   *Edá,   mohus, ofaha   orka   miy*.
then   parrot   3SGRX   carry water
Then, the parrot himself brought the water.

17.   *Edá,   mohus oduk memned   ni oyna mok,   tiná memned, ofa*
then   parrot   order cockatoo   for cook pandanus but cockatoo   s/he

odow.
disinclined
Then, the parrot told the cockatoo to cook the pandanus, but the cockatoo, he
didn't want to.

18.   *Edá,   mohus ofaha   oyna mok,   edá   ef(i)eyj(a)*.
then   parrot 3SGRX   cook pandanus then   ready.to.eat
Then, the parrot himself cooked the pandanus, then it was finished cooking.

19.   *Edá, mohus oduk memned ni ob   mamga, tiná memned, ofa*
       then   parrot order cockatoo for pluck pestle   but   cockatoo s/he

       odow.
       disinclined
       Then, the parrot told the cockatoo to pluck a pestle, but the cockatoo, he was
       disinclined.

20.   *Edá, mohus ofaha   ob   mamga*
       then   parrot 3SGRX pluck pestle
       Then, the parrot himself plucked a pestle.

21.   *Edá, mohus oduk memned ni os   mok,   tiná memned,*
       then   parrot order cockatoo for move.horiz pandanus but   cockatoo

       ofa   odow.
       s/he   disinclined
       Then, the parrot told the cockatoo to grate the pandanus, but the cockatoo, he
       was disinclined.

22.   *Edá, mohus ofaha   os   mok.*
       then   parrot 3SGRX move.horiz.   pandanus
       Then, the parrot himself grated the pandanus.

23.   *Edá, memned, ofa   em-eyta meserfa ni er-et   mok.*
       then   cockatoo s/he   IRR-take   spoon   for CAUS-eat pandanus
       Then, the cockatoo, he would have taken a spoon to eat the pandanus.

24.   *Tiná, mohus, ofa   oduy oj ,   edá   or-a   mamga   or-ojok*
       but   parrot s/he   front descend then   hold-PGE pestle   IRR-whack

       memned   ebir.
       cockatoo   head
       But, the parrot, he was irritated, then whacked the cockatoo's head with the
       pestle.

25.   *Edá, memned, ofa   ebisa.*
       then   cockatoo s/he   cry
       Then, the cockatoo, he cried.

26.   *Edá, memned, ofa ok éysaha jig meregah.*
       then cockatoo s/he flee reach LOC part.way
       Then, the cockatoo, he fled [and] reached mid-way.

27.   *Edá, memnes, ofa ejeka gug memned dokun mohus ohot,*
       then eagle s/he call.out to cockatoo and parrot say

       Y-ebisa=mej éra mar=ey?
       DU-cry=yonder DSJ thing=Q
       Then, an eagle, he called out to the cockatoo and parrot, "Are you (two) over there crying or something?

28.   *Tiná, memned, ofa ohot, Mohus ojok dif rot mok.*
       but cockatoo s/he say parrot whack I about pandanus
       But, the cockatoo, he said, "The parrot whacked me about the pandanus."

29.   *Erogá, memnec, ofa ejeka gug memned, Bua bi-ocok*
       hence eagle s/he call.out to cockatoo you.SG 2SG-climb.up

       jig=kef ni bi-esta mok.
       LOC=here for 2SG-suck pandanus
       So, the eagle, he called out to the cockatoo, "Climb up here to eat pandanus."

30.   *Tiná, memned, ofa odow.*
       but cockatoo s/he disinclined
       But, the cockatoo, he was disinclined.

31.   *Mem noga susuy tin, eri i-eyja gug memned, tiná ofa*
       bird REL other.kind also they.PL 3PL-go to cockatoo but s/he

       odow.
       disinclined
       Other kinds of birds also, they went to the cockatoo [to invite him], but he was disinclined.

32.   *Erogá kus no-kef, mif mi-ek mohus erá, ofa et*
       hence short.span DNR-here we.PL 1PL-see parrot THM s/he eat

       mok, tiná memned erá ofa em-et mok éra.
       pandanus but cockatoo THM s/he IRR-eat pandanus NEG
       So nowadays, we see the parrot, he eats pandanus, but the cockatoo, he doesn't eat pandanus.

33.   *Ocruk*.
       match.up
       That's enough.

Text 6: Ijisir and Yom

This story, told by Edison Orocomna on November 9, 1995, is a trickster story about two legendary figures, *Ijisir*, the trickster, and *Yom*, his victim. When his trick backfires, *Ijisir* attacks *Yom* causing him to die, and thus comes out as winner/hero. Moskonas find this story quite funny.

Synopsis:

Ijisir told *Yom* about a wild pig's burrow which he thought *Yom* would find interesting, but secretly planned to hide himself inside the burrow to scare *Yom* when he arrived to see it. *Ijisir* had already hidden in the burrow when *Yom* went to see the pig's burrow the next day. However, *Yom* had brought his metal spear to spear the pig, but instead of a pig, he speared *Ijisir* in the belly. Seeing what he had done, *Yom* fled the scene, escaping to the top of a *mohega* tree (to escape *Ijisir*'s anger). However, the tree branch he was on broke off and he fell to the ground. At this point, *Ijisir* (magically) changed himself into a wild pig and bit *Yom* so that he died.

1.   *Ijisir dokun Yom, sokomow, Ijisir ohur mar   gug Yom.*
      Ijisir   and   Yom   beginning Ijisir lie   thing to   Yom
      Ijisir and Yom, long ago, Ijisir spoke deceptively to Yom.

2.   *Ofa   ohur   ohot   e-k(a)-i,   Yom, bua   sota   bu-eyja, edá bu-ek*
      s/he   lie   say   DNR-near-GIV   Yom   you.SG   later   2SG-go   then 2SG-see

      mar   erg-es   okuk mek efem(a) em-ah tahays(a).
      thing NUM:1-one like   pig   nest   IRR-lie middle
      He spoke deceptively like this, "Yom, later you [can] go, then see something like a pig's burrow in the middle [of an area].

3.   *Eda,   no-ma-i,   Ijisir em-ah jig   mek   efem(a).*
      then   DNR-far-GIV   Ijisir IRR-lie LOC   pig   nest
      Then, that one, Ijisir intended to lie down in the pig's burrow.

4.   *Edá, Ijisir ohur   ohot, Menejog,   edá   bu-oyra   jig moroj*
      then   Ijisir lie   say   tomorrow   then   2SG-cross.through LOC path

      no-k(a)-i,   edá   bu-eyja bu-ek   mar   efem(a) erg-es   em-ah
      DNR-near-GIV   then   2SG-go   2SG-see thing nest   NUM:1-one IRR-lie

      tahays(a).
      middle
      Then, Ijisir said deceptively, "Tomorrow, then pass through on this path, then go see the burrow thing in the middle [of an area]."

5.   *Eber   edá,   Yom eciga   men-es.*
        fully   then, Yom get.up day-become
        Then that being so, Yom got up early.

6.   *Edá,   Yom em-oyr(a)   eyja ek   mek efem no-ma-i,   tiná Ijisir*
        then   Yom IRR-cross.through go   see pig   nest   DNR-far-GIV but Ijisir

        ohur.
        lie
        Then, Yom intended to cross [and] go [and] see the pig's burrow, but Ijisir had
        spoken deceptively.

7.   *Eber   edá,   ofaha   eciga   men-es eyja   em-ah   jig   mek   efem(a)*
        fully   then   3SGRX   get.up dawn   go   IRR-lie LOC pig   nest

        no-mis-i.
        DNR-former-GIV
        Then that being so, he (Ijisir) got up early [and] went [and] laid in the pig's
        burrow.

8.   *Edá,   Yom-a   en   or   mitomat   er-ed   mek   efem(a)*
        then   Yom-PGE come hold metal.spear CAUS-strike   pig   nest

        no-ma-i,   tiná mitomat   ocig(a)   Ijisir otkona.
        DNR-far-GIV but   metal.spear   accid.strike Ijisir intestines
        Then, Yom came [and] struck the pig's burrow with a metal spear, but
        (unexpectedly) the spear struck Ijisir's belly.

9.   *Edá,   Yom ok osok   tum   mohega, tiná mohega efs(a)   rot*
        then Yom   flee climb.up onto k.o.tree but   k.o.tree crack.off about

        Yom.
        Yom
        Then, Yom fled [and] climbed up a *mohega* tree, but the tree broke with Yom
        (in it).

10.   *Edá, Ijisir, ofa es   mek, edá   ofa of Yom.*
        then   Ijisir s/he become pig   then   s/he bite Yom
        Then, Ijisir, he became a pig, then he bit Yom.

11.   *Edá, Yom ogos rud-a.*
        then   Yom die   ultimately-PGE
        Then, Yom died in the end.

Text 7: Orocomna ancestor

This origin story was given by Sius Orocomna in May 1999. The ancestor of the Orocomna clan (and of many other peoples in the world) is considered to be a woman named Orocomna. The father of her children is not mentioned. This version of the story locates the mother and sons on a mountain called *Moginimes*. (A different version of the story locates them in an another area called Pandanus Leaves.)

Synopsis:

A woman named Orocomna had two sons. The older son had a wife. His younger brother sketched a lewd picture of the wife on the wall of their new house, above the toilet hole for males. The older son saw the sketch and being quite angry, waited for an opportune time to take revenge. The opportunity came when the two were returning from a raid across the Rain River. After sending the rest of the raiding party on ahead, the older brother told his younger brother to guard the far side of the bridge. He then cut the hanging bridge, stranding the younger brother on the far side. When asked by his mother where his younger brother was, he disavowed knowledge, angering his mother. The mother looked for and found the younger brother, then rather than return to join the older brother, the two of them left the area together. Once in the new area, the mother requested the son to kill her and cut up her body. (In a version by a different speaker, both sons are involved in killing and chopping up the mother.) From the parts of her body come a number of people and people groups.

1.   *Mahti   fen   mifmin m-edina   Orocomna*
              legend   from   1PLPOS NR-grandpar. Orocomna
              The legend about our Orocomna ancestor

2.   *Sis   sokomow u-m(e)ja   erá, ejena   noga owoka   Orocomna*
              past   beginning NONVIS-yonder   THM woman REL   name   Orocomna

              dokun   ofon   efer-es   y-erg-ak.
              and   3SGPOS   child-male   DU-NUM:1-two
              In the long ago past, there was a woman named Orocomna and her two sons.

3.   *M-ok-era   owoka Ikowmjij dokun   m-ok-esa   erá*
              NR-sib.s.s-old name   Ikowmjij and   NR-sib.s.s.yg   THM

              owoka   Irofija
               name   Irofija.
              The older one's name was Ikowmijij and the younger one's name was Irofija.

4.   *Eri   i-ebah jig   memeg(a) noga owoka   Moginimes.*
      they.PL 3PL-live LOC   mountain REL   name   Moginimes
      They lived on the mountain that (its) name was Moginimes.

5.   *Eri   i-ebah, tiná   éysaha mona ofoj   ni eri   i-oyna*
      they.PL 3PL-live but   arrive day   pre-set   for they.PL 3PL-cook

      mar-mosorna kerenga   erin   mod efena.
      thing-hunger upon   their house new
      They lived [like ordinary], but the appointed time arrived for them to celebrate
      their new house. (cook food upon = feast, celebrate)

6.   *Erogá,   m-ok-esa   eker, tiná ofa ey   m-ok-era   ofon*
      hence   NR-sib.s.s.-yg sit   but   s/he weave NR-sib.s.s.-old 3SGPOS

      mohena noga owoka   Oyfa-moju   oska   efena jig   mosha   owos
      wife   REL   name   Oyfamoju   crotch   image LOC   k.o.tree skin

      had   mosork   m-(es)ir-(ji)g-es.
      toward   toilet.hole   NR-fall-LOC-male
      So, the younger brother sat [over the toilet hole], but sketched a picture of the
      older brother's wife's crotch on the *mosha* (bark) next to the male's toilet hole.

7.   *Erogá,   m-ok-era   ek mar noga m-ok-esa   en-og   jig mosha*
      hence   NR-sib.s.s-old   see thing REL   NR-sib.s.s-yg DUR-gougeLOC k.o.tree

      owos no-ma-i,   erogá ofa   oyok mar   rot.
      skin   DNR-far-GIV hence s/he   swear thing about
      So [then], the older brother saw what the younger one had been drawing on the
      bark, so he swore as a result.

8.   *Kus   no-ma-i   tin, eri   i-eyja ni i-ed   most(a) jig*
      short.span DNR-far-GIV also they.PL 3PL-go for 3PL-strike victim   LOC

      Miy Mac ewet   erg-em i-mej   etkebr-(t)ok   mow Mosmir.
      water rain   semi.solid NUM:1-CST VIS-yonder   near-spot   land Maibrat
      Also [during] that time, they had gone to spear victims on the other side of the
      Rain River over there near Maybrat territory.

9.   *Erogá, eri   i-ewer   jig mosga noga ah jig Miy Mas ni*
        hence   they.PL 3PL-cross LOC bridge REL lie LOC water rain for

        i-eyja   ewet   m-erg-em   i-mej.
        3PL-go.to semi.solid NR-NUM:1-CST VIS-remote
        So, they crossed the hanging bridge which was over the Rain River to go to the
        other side over there.

10.   *Okuk no-ma-i   edá, eri   i-eyja   ni i-ed   most(a)*
        like   DNR-far-GIV then they.PL 3PL-go   for 3PL-strike victim

        no-mis-i   oysa jog,   edá eri   i-oksomus i-ewer   jig
        DNR-former-GIV finish already, then they.PL 3PL-return 3PL-cross LOC

        mosga no-mis-i   somus.
        bridge DNR-former-GIV   back
        Then that being so, they went to spear victims [so] it was finished, then they
        returned [and] crossed back over that [same] bridge.

11.   *Erogá, ergog y-oduk   i-osnok   romreg ni i-okog   jig, esha*
        hence   they.DU DU-order 3PL-person all   for 3PL-precede LOC from

        ergog y-ot   jug   mosga no-ma-i,   erogá méesa
        they-DU DU-stand against bridge DNR-far-GIV hence enemy

        i-em-eyet   osuj eri   (ér)a.
        3PL-IRR-follow after they.PL NEG
        So, they sent all the people to go ahead of them, because they guarded the bridge
        so the enemy would not follow after them.

12.   *M-ok-era   oduk m-ok-esa   ot   jug   miy ewet*
        NR-sib.s.s-old. order NR-sib.s.s-yg stand against water semi-solid

        m-erg-em   i-mej.
        NR-NUM:1-CST VIS-remote
        The older brother sent the younger one to guard the bank on the opposite side of
        the river over there.

13.   *M-ok-era,   ofa   ot   jug   miy ewet   m-erg-em=kef.*
        NR-sib.s.s.-old. s/he stand against water semi.solid NR-NUM:1-CST=here
        The older brother, he guarded the river bank on the [opposite] side here.

14.   *Oj(u)(er)g-es   edá,   m-ok-era,   ofa oduy okum rot   mar noga*
ORD-NUM:1-one   then   NR-sib.s.s.-old. s/he front   heavy about thing REL

m-ok-esa   en-og   no-mis-i.
NR-sib.s.s.-yg. DUR-gouge   DNR-former-GIV
A little later then, the older brother, he had been upset about what the younger
brother had been drawing.

15.   *Esha edá, ofa or-a   mitow er-ah   mosga no-ma-i,   erogá*
from then   s/he hold-PGEax   CAUS-hack bridge   DNR-far-GIV hence

ebga jug   m-ok-esa,   ofa   ororum jig   no-mej.
torn   against NR-sib.s.s.-yg s/he   lost   LOC   DNR-remote
Therefore, he hacked [off the vines holding] the bridge with an ax, so it was torn
away [so] the younger brother, he was stranded over there.

16.   *M-ok-era,   ofa   owha jig mod.*
NR-sib.s.s.-old. s/he   leave LOC house
The older brother, he left for home.

17.   *Eysaha jig mod, erogá ergen   mosu   esisga jug   ofon   efer*
reach   LOC house hence 3DUPOS mother ask   against 3SGPOS child

noga orna ohot, Buwun m-ok-esa   erá   en-ebah   hádefa?
REL   man   say   2SGPOS NR-sib.s.s.-yg THM   DUR-live   where
(When) he arrived at home, so their mother questioned her child who was the
older, "Where is your younger brother?"

18.   *Erogá, ofa odu gug ofon   ayok   ohot, Dif di-em-ejgen   éra.*
hence   s/he   tell   to 3SGPOS mother say   I   1SG-IRR-know NEG
So, he told his mother, "I don't know."

19.   *Okuk no-ma-i   edá,   ayok,   ofa oduy okum, edá   ofa oyok mar*
like   DNR-far-GIV then   mother s/he front heavy then   s/he swear thing

tum.
onto
Then that being so, the mother, she was upset, then she swore over it.

20.   *Erogá, ofa ohsud jig moroj noga eri   i-ewer   jig no-mis-i.*
hence   s/he search LOC path REL   they.PL 3PL-cross LOC DNR-former-GIV
So, she searched on the path which they had passed on.

21. *Ofa éysaha jig Miy Mas efembra, edá ek, tiná ofon   efer   oycur*
     s/he reach   LOC water rain   flank   then see but 3SGPOS child tail

     no-mis-i   erá en-ot   jig Miy Mas ewet   enam
     DNR-former-GIV   THMDUR-stand LOC water rain   semi.solid half

     u-m(e)j-a.
     NONVIS-remote-PGE
     She arrived at the edge of the Rain River, then saw her youngest child was
     standing on the far bank of the Rain River yonder.

22. *Okuk no-ma-i   edá, ofa esah mebris efi jig miy, tiná miy   ok.*
     like DNR-far-GIV then s/he put   detritus leaf LOC water but water bear
     Then that being so, she put dried leaf debris in the river, but the water carried it
     off.

23. *Okuk no-ma-i   edá, ofa esah merga   morhog jig miy   tas, tiná*
     like DNR-far-GIV then s/he put   wood   morhog LOC water again but

     omga   jig   miy.
     submerge LOC   water
     Then that being so, she put *morhog* wood in the water in another attempt, but it
     sunk in the river.

24. *Okuk no-ma-i   tas edá, ofa esah omomka   owos ekena jig*
     like DNR-far-GIV again then s/he put   breast   fruit red   LOC

     miy, tiná ok   ecira   tusus   jig   miy.
     water but   bear walk   to.and.fro LOC   water
     Then that being so again, she put a red breast seedpod in the river, but the
     water carried it back and forth in the river.

25. *Okuk no-ma-i   tas edá, ofa ek, tiná   merga mesrohur owos*
     like DNR-far-GIV again then s/he   see but   wood   mesrohur skin

     en-ah=kef.
     DUR-lie=here
     Then that being so again, she looked, but (unexpectedly) *mesrohur* tree
     bark was there.

26.   *Erogá, ofa eyta, edá edeska jig miy tin, edá ofof jig miy*
       hence s/he take then release LOC water also then run LOC water

       odog, edá éysaha jig miy ewet   m-erg-em   noga ofon
       chest then reach   LOC water semi.solid NR-NUM:1-CST REL 3SGPOS

       efer en-ot   jig no-ma-i.
       child DUR-stand   LOC DNR-far-GIV
       So, she took it, then released (it) also into the river, then it floated on the river's
       surface, then arrived on the riverbank's other side that her child was standing on
       there.

27.   *Edá, efer, ofa eyta merga owos no-ma-i,   edá esah jig   miy*
       then child s/he take wood skin DNR-far-GIV then put LOC water

       somus skod   ofon   ayok.
       back   to   3SGPOS mother
       Then, the kid, he took [hold of] the bark, then put in back in the river
       [sending it] to his mother.

28.   *Edá ayok, ofa eyta esah jig miy somus skod ofon   efer,*
       then mother s/he take put LOC water back to   3SGPOS child

       erogá ofa osok   jig ni eyja skod ofon   ayok.
       hence s/he climb.up LOC for go   to   3SGPOS mother
       Then, the mother, she took [and] put (it) back in the river [sending it] to her son,
       so [then] he climbed up on it to go to his mother.

29.   *Edá, ayok, ofa tin osok   jig   dokun ofon   efer no-ma-i.*
       then mother s/he also climb.up LOC and   3SGPOS child DNR-far-GIV
       Then the mother, she also climbed up with her son.

30.   *Ergog y-oj   kuk miy odog, y-éysaha jig miy odog*
       they.DU DU-descend along water chest DU-reach LOC water chest

       tahays(a), edá y-oks(a)-ef   somus y-ek, tiná memeg(a)
       middle   then DU-turn.over-near back   DU-see but mountain

       Moginimes ah etkebr(a)-ok ros.
       Moginimes lie short-small.bit still
       They descended along the rivers' surface, (when) they reached the middle of the
       river, then turned back around [and] looked, but the Moginimes mountain was

still nearby.

31.   *Okuk no-ma-i   edá, ergog y-osturur   tas,   edá y-éysaha*
       like   DNR-far-GIV then they.DU DU-continue.on again then DU-reach

       meregah,   erogá y-ek   somus, tiná memeg(a) no-mis-i   ot
       on.the.way   hence DU-see   back   but mountain DNR-former-GIV stand

       esen jog,   dokun y-em-ek   memeg(a) no-ma-i   efega tin éra.
       far   already and   DU-IRR-see mountain DNR-far-GIV body also NEG
       Then that being so, they continued on again, then (when) they reached [farther]
       along the way, so [then] they looked back, but the mountain was already distant,
       and they didn't see the base of the mountain either.

32.   *Okuk no-ma-i   edá, ergog y-er-eft(a)   jig mowah, edá*
       like   DNR-far-GIV then they.DU DU-CAUS-attach.to   LOC outside then

       ayok   oduk   ofon   efer ni ofa ojuj   marefen no-ma-i.
       mother order   3SGPOS child for s/he trim   grass   DNR-far-GIV
       Then that being so, they landed (the dugout) on the riverbank, then the mother
       told her son to cut back the grass.

33.   *Edá, ofa ojuj   marefen no-ma-i   oys-omos(a).*
       then   s/he trim   grass   DNR-far-GIV finish-RED
       Then, he cut back the grass [so] it was finished up.

34.   *Edá, ayok, ofa   oduk   ofon   efer ni of merga noga*
       then   mother s/he   order   3SGPOS   child for fell wood   REL

       orokec noga owoka mocod.
       large   REL   name mocod
       Then, the mother, she told her son to fell a large tree which (its) name was
       mocod.

35.   *Ofon   efer ohot gug mosu   ohot, Dif erá di-em-of   merga*
       3SGPOS child say   to mother say   I   THM 1SG-IRR-fell wood

       noga orokec no-kef   ér(a) nom.
       REL   large   DNR-here NEG VER
       Her son said to his mother, "I can't fell this tree which is large."

36.   *Tiná, mosu   ohot, Bua   bi-of   j(ef)a,   esha mar noga*
       but   mother say   you.SG 2SG-fell DEON-PGE from thing REL

       oyf-omof(a) erg-em   em-éysaha kerenga bua   se.
       good-RED   NUM:1-CST   IRR-reach   upon   you.SG definitely
       But [his] mother said, "You should fell it, because another really good thing will
       certainly happen to you."

37.   *Okuk no-ma-i   edá, efer no-ma-i,   ofa of merga no-ma-i,*
       like DNR-far-GIV then child DNR-far-GIV s/he fell wood   DNR-far-GIV

       edá   esim.
       then   fall.over
       Then that being so, the kid, he felled the tree, then it fell over.

38   *Ayok   ohot, Bua   bi-ah   merga no-ma-i   owok(a) tin.*
       mother say   you.SG 2SG-hack wood   DNR-far-GIV branch also
       [His] mother said, "Hack up the tree's branches also."

39.   *Okuk no-ma-i   edá, efer, ofa ah   merga owok(a) tin,   edá*
       like DNR-far-GIV then child s/he hack wood   branch also then

       oys-amos(a).
       finish-RED
       Then that being so, the kid, he hacked up the tree branches, then it was finished.

40.   *Ayok   oduk   efer no-ma-i   tas ni or mod jig merga*
       mother order   child DNR-far-GIV again for build house LOC wood

       efega no-ma-i,   edá éysaha jig   merga okow dokun ofuyga   tin.
       body DNR-far-GIV then reach LOC   wood   base and   upper.part also
       [His] mother further told her son to build a house in the tree trunk, then it
       encompassed the base of the tree and the upper section also.

41.   *Edá, bi-eseki mer owoksa noga edeses tin.*
       then 2SG-fix   room subunit REL   many   also
       "Then, fix many side rooms also."

42. *Edá, ofa en mar noga ayok en-ohot gug efer no-ma-i, edá*
   then   s/he do thing REL   mother DUR-say to child DNR-far-GIV then

   oysa-mos(a) jog.
   finish-RED   already
   Then, he did what his mother was saying to the kid, then it was completely
   finished.

43. *Ayok oduk ofon efer ni eyta mosom ni er-owi osum*
   mother order   3SGPOS child for take ax   for CAUS-pierce nose

   ofon.
   tooth
   [His] mother told her son to take an ax to cut off the tip of her nose.

44. *Tiná efer ohot, Ayok, dif di-oduy efef rot bua nom.*
   but child say   mother I   1SG-front ache about you.SG VER
   But the kid said, "Mother, I truly love you."

45. *Tiná ayok ohot, Bua bi-ojok dif j(ef)a, esha mar*
   but   mother say   you.SG 2SG-punch I   DEON-PGE from thing

   erg-em oyfa-mof em-éysaha kerenga bua se.
   NUM:1-CST good-RED IRR-reach upon   you.SG definitely
   But [his] mother said, "You should hit me, because something very good will
   certainly happen to you."

46. *Ayok ohot gug efer oj(u)(er)g-es, Bua bi-ogow dif, edá*
   mother say   to child ORD-NUM:1-one you.SG 2SG-chop I   then

   di-osum ofon dokun di-efefej erá bi-esah ah
   1SG-nose tooth and   1SG-heart THM   2SG-put lie

   etkebr-ok bua.
   short-sm.spot   you.SG
   [His] mother said to the kid once [again], "Chop (kill) me, then the tip of my
   nose and my heart place nearby to you."

47. *Okuk no-ma-i edá, efer, ofa ogow ofon ayok, edá ogos.*
   like DNR-far-GIV then child s/he chop 3SGPOS mother then die
   Then that being so, the kid, he chopped up his mother, then she died.

48. *Okuk no-ma-i   edá, ofa egeja   dokun ogow ofoga toktog,*
     like DNR-far-GIV then s/he slit.open and   chop flesh respect.place

     edá   esah jig mer   owoksa noga ofa eseki no-mis-i,   edá
     then put   LOC room subunit REL s/he fix   DNR-former-GIV then

     edegejg   romreg.
     match.up   entirely
     Then that being so, he slit her open and chopped her flesh into each place (pile)
     respectively, then put it in the side rooms which he had prepared, then it was
     entirely apportioned.

49. *Edá, ofa eyta   misomok efi eken(a) tin esah osuj   ofog*
     then s/he take tobacco leaf red   also put upon   flesh

     no-mis-i   romreg tin, edá   edegejg(a).
     DNR-former-GIV all   also   then match.up
     Then, he took brown tobacco leaves also [and] placed them on top of all of the
     [piles] of flesh, then it was apportioned.

50. *Erogá, ofa   eyta   osum ofon dokun efefej erá   ofa   esah*
     hence s/he take   nose tooth and   heart THM s/he put

     etkebr(a)-ok   jig   oduy.
     short-spot   LOC   front
     So, he took the tip of her nose and her heart, he placed near the front of his
     body.

51. *Efer no-ma-i,   ofa ah   éysaha jig   motgus   tahays(a).*
     child DNR-far-GIV s/he lie reach LOC midnight middle
     The kid, he laid down until the middle of the night.

52. *Edá, ofa ahasha mar okuk y-ejewjen(a)-ir y-erg-ak   y-ah*
     then s/he dream thing like DU-yg.woman-PL DU-NUM:1-two DU-lie

     dokun   ofa.
     and   s/he
     Then, he dreamed something like two young women laid with him.

53.   *Okuk no-ma-i   edá,   ofa efena ebra,   erogá ofa   ek, tiná*
      like   DNR-far-GIV then   s/he spirit spread.over hence s/he   see but

      y-ejewjen(a)-ir   y-erg-ak   erá   y-en-ah   jera ofa=kef.
      DU-yg.woman-PL   DU-NUM:1-two   THM   DU-DUR-lie   with s/he=here
      Then that being so, he was startled, so he looked, but unexpectedly two
      young women were lying with him there. (spirit spread over = startled)

54.   *Erogá,   erg-em   ah jig   erga,   erg-em   ah jig   orojuj.*
      hence   NUM:1-CST lie LOC   left.side NUM:1-CST lie LOC   right.side
      So, one of them lay at his left side, one of them lay at his right side.

55.   *Edá, ofa   noga en-ah   jig orojuj, ofa ejeka okuk ofon   mohena.*
      then s/he   REL   DUR-lie   LOC right.side s/he call   like   3SGPOS wife
      Then, she who who was lying at his right side, he called his wife.

56.   *Edá   erg-em   noga en-ah   jig erga   erá,   ofa ejeka okuk ofon*
      then   NUM:1-CST REL   DUR-lie   LOC left.side THM   s/he call   like   3SGPOS

      mi-ew-esa.
      1PL-sib.s.s.yg
      Then, the one who was lying at his left side, he called as his younger sister.

57.   *Okuk no-ma-i   edá,   ofa eciga eyeg-ejga mer   no-ma-i   romreg,*
      like   DNR-far-GIV then   s/he get.up look-graze room DNR-far-GIV all

      tiná   i-osnok   meren, eri   i-eciga   dokun i-ok   misomok
      but   3PL-person lake   they.PL 3PL-get.up and   3PL-smoke tobacco

      ewes eyjuo jig   mer   owoksa tin   no-ma-i   romreg.
      cavity blink LOC   room subunit also   DNR-far-GIV all
      Then that being so, he got up [and] observed the entire room, but a crowd of
      people, they got up and smoked the tobacco [so] it flickered in all the side rooms
      also.

58.   *Edá, ofa   eciga ni osuy eri.*
      then s/he   get.up for greet they.PL
      Then, he got up to greet them.

59. *Edá,   eri   enia   i-owha   jog-a,   tiná   enia   erá*
    then   they.PL   some.other   3PL-leave   already-PGE   but   some.other   THM

    i-ebah   ros.
    3PL-live   still
    Then, some others of them had already left, but some others still remained.

60. *Edá,   ofa esed eri   i-etma okuk no-ma-i,   erogá   i-en-ejeka*
    then   s/he grab   they.PL   3PL-arm   like   DNR-far-GIV   hence   3PL-DUR-call

    i-efedes.
    3PL-c.sibling
    Then, he grabbed their hands like that, so they are called classificatory siblings.

61. *Okuk no-ma-i   edá,   eri   noga i-en-owha   sokomow*
    like   DNR-far-GIV   then   they.PL   REL   3PL-DUR-leave   beginning

    no-mis-i,   eri   i-eyja   mow noga ah jig   esen jog.
    DNR-former-GIV   they.PL   3PL-go   land   REL   lie   LOC   far   already
    Then that being so, they who were leaving in the beginning, they had already
    gone to a place which was distant

62. *Okuk no-ma-i   edá,   ofa eker jig mod no-mis-i   dokun*
    like   DNR-far-GIV   then   s/he sit   LOC house   DNR-former-GIV   and

    ofon   mohena jera ofon   mi-ew-esa   tin.
    3SGPOS   wife   with   3SGPOS   1PL-sib.s.s.-yg   also
    Then that being so, he stayed in the house with his wife and his younger
    sister also.

63. *Ofon   mohena no-ma-i   erá   owoka   Or(ojuj)-tu-ej,   tiná*
    3SGPOS   wife   DNR-far-GIV   THM   name   right.side-?-female   but

    ofon   mi-ew-esa   erá   owoka   Erg(a)-tu-ej.
    3SGPOS   1PL-sib.s.s.-yg   THM   name   left.side-?-female
    His wife's name was Ortuej, but his younger sister's name was Ergetuej.

64. *Edá, ergog noga y-ej   y-ehaw   ni y-orka   miy, tiná*
     then   they.DU REL   DU-female DU-go.down for DU-carry water but

     ergog y-eg   i-ogá   jig merga ewes no-ma-i.
     they.DU DU-hear 3PL-speech LOC wood   cavity DNR-far-GIV
     Then, they (two) who were females went down to carry water, but they
     (unexpectedly) heard voices inside the tree.

65. *Edá, m-ok-esa   oduk   m-ok-era   ni osok   eyta mosom*
     then   NR-sib.s.s-yg order   NR-sib.s.s-old   for climb.up take ax

     noga ah jig mod ni i-er-etka   merga no-mis-i   rot
     REL   lie LOC house for 3PL-CAUS-split wood   DNR-former-GIV about

     i-osnok   noga i-en-eker jig merga ewes no-ma-i.
     3PL-person REL   3PL-DUR-sit LOC wood   cavity DNR-far-GIV
     The the younger sister told the older one to climb up [and] take the ax which
     was in the house to split.open the tree for the people who were inside the tree.

66. *Edá, ergog y-etka merga no-ma-i   rot, tiná i-osnok*
     then   they.DU DU-split wood   DNR-far-GIV about but   3PL-person

     i-ognunui dokun i-oyf-omof(a) tin i-en-ebah   edes-es=kef.
     3PL-many and   3PL-good-RED also 3PL-DUR-live many-RED=here
     Then, they (two) split open the tree as a result, but (unexpectedly) lots of good
     people also were in abundance now.

67. *Edá, eri   noga susuy   i-ok   rot   eri   jog.*
     then   they.PL REL   other.kind 3PL-flee about they.PL already
     Then, the other kinds of people had already run off with them.

68. *Tiná, orna ekena [noga] en-ebah no-ma-i   erá, ofa eyta   ejena*
     but   man   red   REL   DUR-live DNR-far-GIV THM   s/he take   woman

     noga owoka Ergetu-ej, edá ergog y-owha jig   ergen   mod.
     REL   name Ergetuej   then they.PL DU-leave LOC   3DUPOS house
     But, an older man who was there, he took the woman who was named Ergetuej,
     then they left for their home.

69.   *Erogá,   orowen jen(a)   eri-orna   i-eyta   eri-ej-a   noga*
       hence   follow   exact   they.PL-man 3PL-take they.PL-female-PGE   REL

       i-ejewjen(a)-ir   tin.
       3PL-yg.woman-PL   also
       So, according to [that example] men also take women who are young women.

70.   *Edá,   Irofíja,   ofa   eyta   ewek   tiná   ecka.*
       then   Irofija   s/he   take   gallbladder   but   split.open
       Then Irofija, he took the gallbladder, but it (unexpectedly) split open.

71.   *Edá,   ofa   eyj jig   miy,   erogá en-es   mos   orna dokun*
       then   s/he   toss LOC   water hence DUR-become outsider man   and

       mos   macog.
       outsider   gun
       Then, he tossed it in the river, so it became the foreigners (Indonesian nationals)
       and the soldiers.

72.   *Otkona   erá   es   eri   Marusum   dokun   eri   noga*
       intestine   THM   become they.PL s.coast.people and   they.PL REL

       i-owos   efsa   tin.
       3PL-skin   white also
       The intestines (belly) became the south coast people and also those whose skin
       was white.

73.   *Mow noga eri   i-en-ebah   jig   erá,   owoka Miy Mas.*
       land REL   they.PL 3PL-DUR-live   LOC   THM   name   water rain
       The place where they lived, its name was the Rain River.

74.   *Mowos noga eri   i-en-or   mod jig en-ah=ma-i   ros.*
       village REL   they.PL 3PL-DUR-build house LOC DUR-lie=far-GIV   still
       The village where they built a house is still there.

75.   *Mok   etew dokun moduaha tin   en-ot=ma-i   ros.*
       pandanus   much and   k.o.tree also   DUR-stand=far-GIV still
       There are still lots of pandanus and *moduaha* trees there also.

76.   *Mar romreg en-ah=ma-i   ros éysaha mona tisef.*
       thing all   DUR-lie=far-GIV still reach   day   today
       Everything is still there up to today.

77.   *Ocruk*
       match.up
       That's it.

Text 8: Shaman

Shaman are traditional healers, who may use medicinal treatments involving herbs, or may use items which have spiritual power. Those items with spiritual power may have received power through ritual incantations or have inherent spiritual power. This text, given by Lukas Orocomna in 1990, was transcribed in October 1995.

Synopsis:

Long ago, if someone was sick, a shaman was sent for to treat the illness. The shaman would give spiritual power to a nettleleaf plant by chanting over it, then place it on the sick person's chest. The shaman scraped up clay, placing it on the sick person's body, symbolically transferring the sickness to the clay. The clay was then hurled away from the person, taking the sickness away as well. If it was suspected that a person was afflicted by a ghost (of a dead person), the shaman burned a pig's jaw to enable him to see the ghost, so he could seize it and chop (or kill) the ghost. The shaman was then paid with various items commonly used as trade goods, such as cloth bought in a store, beads, armbands and pigs.

1.   *Dif-a, sokomow jig-a,   mifin   muys(a) obat*[63]*, eri   i-esirna metna,*
         I-PGE beginning LOC-PGE 1PLPOS shaman potion   they.PL 3PL-sick where

         edá   i-om   i-ogá   skod ofa,   muysa, en   oked mar jig,
         then   3PL-send 3PL-speech to   s/he shaman come chant thing LOC

         oked   mecif er-or   owos ojguna,
         chant   nettle CAUS-hold   skin cough
         I, long ago there, our potions shaman, [if] they were sick wherever,
         then they sent word to him, the shaman, [so] he came [and] chanted there,
         chanted over the nettle leaf, [so] it adhered to the [sick one's] skin [so] he
         coughed.

2.   (*Ofa*) *oker   mow-ewet   er-og   orkos, ahac kereng(a)*
         s/he   strip.away land-semi.solid CAUS-gouge neck   tie   upon

         odogeg, esed, er-ofum   fen ofa, jida ednem.
         chest   grab CAUS-hurl   from s/he until healthy
         (He) scraped up some clay, drew with it on [the sick one's] neck, tied [the rest of
         the clay] over his chest, grabbed [and] hurled [the sickness] away from him
         until he was well.

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[63] The word *obat* 'potion', 'drug' or 'chemical compound' is borrowed from Malay.

3.   *Edá, eri   i-em-eyh(a) ofoms(a): miy   mos,   mera, moftira,   mek*
      then   they.PL 3PL-IRR-pay wage   cloth foreign beads armband   pig

      er-eyh(a)   ofoms(a)   em-owha rot.
      CAUS-pay   wage   IRR-leave about
      Then, they would pay his wages:store cloth, beads, armbands, pigs, paid his
      wages (with them) [and] he would leave as a result.

4.   *Mon es,   edá oku   mek eweken ek mon eker jig*
      ghost press.on then burn pig   jaw   see ghost sit   LOC
      [If/when] a ghost has affected[someone], then [the shaman] burned a pig's jaw
      [so] he [can] see the ghost there.

5.   (*ofa*) *esed eyja ogow*
      s/he grab go   chop
      (The shaman) grabbed (it) [and] began to kill it.

6.   *Edá, eri   i-em-eyh(a) ofoms(a)   eseter.*
      then   they.PL 3PL-IRR-pay wages   much.more
      Then, they would pay (him) his high wages.

7.   *Mek noga orokec, miy   efem, mera, miy   mos   eseter   eromd(a)*
      pig   REL   large   cloth bolt beads cloth outsider much   counterpart

      dokun, i-er-eyh(a) ofoms(a).
      and   3PL-CAUS-pay wages
      Large pigs, bolts of store cloth, beads, many sets of store cloth, they paid his
      wages with them.

8.   *Osruk.*
      match.up
      That's it.

Text 9: Dog and bandicoot

This is a story, told by Sius Orocomna in October 1999, is about how dogs allegedly came to be carnivores who hunt and eat bandicoots (and other small animals) raw. The continued animosity between dogs and bandicoots is attributed to an original offense by the bandicoots. This is a bedtime story for children.

Synopsis:

During legendary times, dogs and bandicoots lived together in peace. The dog hunted and brought home birds and pigs, of which they ate only the skins. At a joint feast, the dog invited his relatives and the bandicoot invited his relatives. They ate together (a sign that there was no hostility between them) and danced together. The next day the dogs left for their villages, but the bandicoots remained behind together in the house built for the celebration. As the bandicoots mocked the way the dogs had danced, they were unaware that a single old dog, covered with ashes remained to observe what they were doing. When the old dog left, he joined the other dogs and reported the offense. The dogs who had attended gathered their relatives to take revenge. They returned and killed the bandicoots and carried the bodies off. By accident, the old gap-toothed dog, carrying a bandicoot in his mouth, discovered that the blood of the bandicoot tasted good, so he ate it. The other dogs followed suit and to this day continue the habit of immediately eating whatever they catch in the forest.

1. *Mahti fen Mes dokun Misi*
    legend from dog and bandicoot
    The legend of the dog and the bandicoot

2. *Mona erg-em tas erá, mes dokun misi, ergog y-ebah*
    day NUM:1-CST again THM dog and bandicoot they.DU DU-live

    mejerem jera oyf-omof.
    together with good-RED
    [At] another time again, the dog and the bandicoot, they lived together peacefully.

3. *Ergog y-em-ejgen mar noga okuk i-oyom-okum éra, dokun*
    they.DU DU-IRR-know thing REL like 3PL-request-heavy NEG and

    i-osum esis erg-em tin éra.
    3PL-nose exclude NUM:1-CST also NEG
    They didn't know things which were like quarreling, and they weren't hostile about anything either.

4.   *Mes, ofa   ecira jig   mowah, edá   ef   mem eke,   dokun*
      dog   s/he walk LOC   outside then shoot bird ENUM and

      mek   eke.
      pig   ENUM
      The dog, he traveled about in the forest, then shot birds and pigs.

5.   *Edá, ofa   ok   skod misi,   edá   y-oyna   efej(a),   erogá*
      then s/he bear to   bandicoot then DU-cook   hair   hence

      ergog   y-em-et.
      they.DU DU-IRR-eat
      Then, he brought (it) to the bandicoot, then they cooked (scalded) the pelt, so
      (then) they would eat (it).

6.   *Mes, ofa em-ejgen rot   em-et   mars(a) ebah éra.*
      dog   s/he IRR-know about IRR-eat game   live NEG
      The dog, he didn't know to eat live (raw) game (meat).

7.   *Eysaha mona ofoj   ni   misi   oyna mar-mosorn(a)   noga edeses,*
      reach   day   pre.set for bandicoot cook thing-hunger   REL   many

      y-esua   mar-mosorn(a)   m-ef-im(a).
      DU-open   thing-hunger   RECIP-do.in.turns
      [When] the time arrived for the bandicoot to cook lots of food, they feasted
      together. (open food in turns = feast)

8.   *Okuk no-ma-i   edá, misi   ohot gug mes ni eyj mofga skod*
      like DNR-far-GIV then   bandicoot say   to dog for toss straw to

      ofon   i-osnok   noga i-ebah mow madi-madi ni eri   i-en
      3SGPOS 3PL-person REL   3PL-live land where-RED for they.PL 3PL-come

      skod dif rot   mar noga di-en-oyna=kef.
      to   I   about thing REL   1SG-DUR-cook=here
      Then that being so, the bandicoot said to the dog to invite his relatives who
      lived in various places "for them to come to me regarding the things which am
      cooking".

9.   *Dif tin di-ah   mofga skod dadin i-osnok   noga i-en-ebah   jig*
          I   also 1SG-hack straw   to   1SGPOS 3PL-person REL   3PL-DUR-live LOC

           mow   erg-erg-em   tin.
           land   NUM:1-RED-CST   also
           "I also invited my relatives who also live in various places."

10.   *Okuk no-ma-i   edá,   ergog y-or   mod noga orokec dokun*
          like   DNR-far-GIV then   they.DU DU-build house REL   large   and

           y-eseki mers(a) noga orokec tin   ni i-osnok   noga meren noga
           DU-fix floor   REL   large   also   for 3PL-person REL   lake   REL

           ergog   y-eyj   mofga skod eri   no-mis-i.
           they.DU DU-toss straw   to   they.PL DNR-former-GIV
           Then that being so, they built a large house and prepared a large floor also for
           the crowd of people who they had sent invitations to.

11.   *Edá,   ergog   y-ok   mergej   tin   eke,   y-ohsud mar-mosorn(a)*
          then   they.DU DU-bear firewood also   ENUM DU-search thing-hunger

           noga edeses tin   eke.
           REL   many   also   ENUM
           Then, they also brought firewood, also searched out lots of food.

12.   *Okuk no-ma-i   edá,   éysaha mon(a) ofoj   ni y-oyna*
          like   DNR-far-GIV then   reach   day   pre-set for DU-cook

           mar-mosorn(a) y-esua   mar-mosorn(a)   m-ef-im).
           thing-hunger   DU-open   thing-hunger   RECIP-do.in.turns
           Then that being so, (when) the appointed time arrived for them to cook the food,
           they opened food in turns = feast).

13.   *Eri   noga ergog y-eyj   mar skod no-ma-i   tin,   eri*
          they.PL REL   they.DU DU-toss thing to   DNR-far-GIV also   they.PL

           i-éysaha jog,   eri-orna eke, eri-(e)jena   eke, dokun
           3PL-reach already they-man   ENUM they.PL-woman   ENUM and

           eri-ej-efer   eke,   eri-es-efer   tin   eke.
           they.PL-female-child ENUM   they.PL-male-child   also   ENUM
           Those also who they had invited, they arrived, men, women, and also young

women and young men.

14. *Eri   i-or-a   i-etma,   mar-mosorn(a)   i-em-er-osta-ima*
     they.PL 3PL-hold-PGE 3PL-arm   thing-hunger   3PL-CAUS-RECIP-thrust

     esebra.
     continuous
     They held arms, [and] food they passed to each other continuously. (i.e. force-feeding e.o.)

15. *Edá, enia   i-ahamow   tum   gijga.*
     then some.other 3PL-vomit   onto   only
     Then, some others just vomited.

16. *Eysaha etkebra ni mot jog,   edá   eri   romreg i-osok   jig*
     reach   nearby on night already then   they.PL all   3PL-climb.up LOC

     mod efena no-mis-i   ni   eri   i-oyka-mers(a).
     house new   DNR-far-GIV for they.PL 3PL-dance-floor
     [When it] had nearly reached night, they they all climbed up into the new house for them to dance.

17. *Eri   i-oyka-mers(a)   esebra,   edá   men(a)-esif tum   gijga.*
     they.PL 3PL-dance-floor   continuous then day-open   onto   only
     They danced on and on, then it was just daylight.

18. *Eri   i-of   yaroga dokun i-en   merej ogá   esebra   gijga.*
     they.PL 3PL-sing song   and   3PL-do avenger speech continuous only
     They just sang songs and played revenge songs continuously

19. *Eri   i-oyka   dokun   i-etka   i-etma   i-er-em-oh-oh-im(a),*
     they.PL 3PL-dance and   3PL-split 3PL-arm   3PL-CAUS-RECIP-adhere-RED

     okuk eri-ej-a   i-erg-em   dokun eri-es   i-erg-em,
     like   they.PL-female-PGE 3PL-NUM:1-CST and   they.PL-male 3PL-NUM:1-CST

     okuk no-ma-i   gijga.
     like   DNR-far-GIV only
     They danced and divided up [and] interlocked their arms, like one of the women with one of the men, just like that.

20.   *Edá, éysaha men-esif jog, okuk no-ma-i ni eri*
       then   reach   day-open already like DNR-far-GIV for they.PL

       i-ahad(a)-ef tok-tok jig erin mowos noga eri
       3PL-dismantle-near spot-RED LOC 3PLPOS village REL they.PL

       i-en-ebah jig.
       3PL-DUR-live LOC
       Then, [when it] reached dawn, like that [it was time] for them to disperse
       each respectively to their villages which they lived in.

21.   *Okuk no-ma-i edá, mes ofon amok(a)-ir, eri tin*
       like DNR-far-GIV then dog 3SGPOS friend-PL they.PL also

       i-em-owha, dokun misi tin, ofa dokun ofon amok(a)-ir,
       3PL-IRR-leave and bandicoot also s/he and 3SGPOS friend-PL

       eri i-em-owha.
       they.PL 3PL-IRR-leave
       Then that being so, the dog's friends, they also would leave, and the
       bandicoot also, he and his friends, they would leave.

22.   *Eri i-esed i-etma jera i-oduy efef.*
       they.PL 3PL-grab 3PL-arm with 3PL-front ache
       They grasped arms with affection. (front ache = love)

23.   *Eri i-ohot, Yi-eteyj(a)-o-o, yi-en-owha=mej=o=o.*
       they.PL 3PL-say 2PL-eye-EMP-EMP 2PL-DUR-leave=remote=EMP=EMP
       They said, "[Keep] your eyes [from evil], you are departing [to] way off
       yonder!"

24.   *Okuk no-ma-i, mes, eri tin i-ohot, Bua tin*
       like DNR-far-GIV dog they.PL also 3PL-say you.SG also

       bi-en-owha=mej=o=o!
       2SG-DUR-leave=remote=EMP=EMP
       In the same way, the dogs, they also said, "You also are departing [to] way off
       yonder!

25.   *Mif tin mi-oduy efef rot yua romreg=o!*
       we.PL also 1PL-front ache about you.PL all=EMP
       We also love you all!"

26.   *Okuk no-ma-i   edá, eri   i-ahad(a)-ef   tog-tog(a)*
       like   DNR-far-GIV then   they.PL 3PL-dismantle-near different-RED

       no-mis-i   em-oysa   jog.
       DNR-former-GIV IRR-finished   already
       Then that being so, they dispersed [to] those various places [so] it
       would be over.

27.   *Edá, ofa   noga efca noga oyna mar-mosorn(a)   no-mis-i,   ofa*
       then s/he REL   group REL   cook thing-hunger   DNR-former-GIV s/he

       dokun   ofon   amok(a)-ir enia   erá i-eker jig   mod noga
       and   3SGPOS friend-PL   some.other   THM 3PL-sit LOC   house REL

       i-en-oyka   jig   no-mis-i.
       3PL-DUR-dance LOC   DNR-former-GIV
       Then, he who was in the group who cooked the food, he and some other of his
       friends stayed in the house that they had been dancing in.

28.   *Okuk no-ma-i   edá, eri   i-eker   rahasis   jig mod, tiná eri*
       like   DNR-farGIV then   they.PL 3PL-sit whole.day LOC house but they.PL

       i-eciga   ni i-osut   mes, eri   noga i-oyka   rot i-odra
       3PL-get.up for 3PL-imitate dog   they.PL REL   3PL-dance about 3PL-dangle

       ebej   et-ak   noga eynegneg.
       STONE   NUM:3-two REL   sway
       Then that being so, they stayed the whole day in the house, but they got up to
       imitate the dogs, they who danced with their two testicles which swayed.

29.   *Eri   i-eciga, edá i-eyta morkah ofoj, erogá i-or   had*
       they.PL 3PL-get.up then 3PL-take fagot   end   hence 3PL-hold   toward

       i-oduy   ni i-oyka.
       3PL-front for 3PL-dance
       They got up, then took fagots, so (then) held (them) toward their fronts to dance.

30.   *Eri   i-osut   mar no-ma-i   esebra,   dokun eri   i-otut*
       they.PL 3PL-imitate thing DNR-far-GIV continuous and   they.PL 3PL-laugh

       mar   rot.
       thing about
       They imitated that on and on, and they laughed as a result.

31.   *Eri   i-ohot, Mes erá i-oyka   okuk no-kef*!
       they.PL 3PL-say dog   THM 3PL-dance like   DNR-here
       They said, "The dogs danced like this!"

32.   *Okuk no-ma-i   edá, eri   i-em-ek   mes noga orna eken(a)*
       like DNR-far-GIV then they.PL 3PL-IRR-see dog REL man red

       jog   éra.
       already NEG
       Then that being so, they didn't see the dog who was an old man.

33.   *Ofa   ah jig   mofur i-osum*.
       s/he lie LOC   ash   3PL-nose
       He laid on a jutting point of the ashes.

34.   *Mes no-ma-i,   ofa   ah, tiná ek mar noga misi,   eri*
       dog DNR-far-GIV s/he lie but see thing REL bandicoot they.PL

       i-osut   no-mis-i.
       3PL-imitate DNR-former-GIV
       The dog, he lay [there], but saw what the bandicoots, they had imitated.

35.   *Ofa   ek, tiná owos moj   rot ofon   amok(a), eri   noga*
       s/he see but skin shamed about 3SGPOS friend   they.PL REL

       misi   i-osut   rot   i-odra ebej   et-ak   eyneg-neg
       bandicoot 3PL-imitate about 3PL-dangle STONE NUM:3-two sway

       no-mis-i.
       DNR-former-GIV
       He saw (it), but felt embarrassed for his friends, they who the bandicoots
       imitated with their two swaying testicles.

36.   *Mes noga orna ekena no-ma-i,   ofa ah eteyj(a) omh(a),   tinagurá.*
       dog REL man red   DNR-far-GIV s/he lie eye   sleep.deep but.not
       The dog who was an old man, he had slept deeply, but woke up unexpectedly.

37.   *Ofa   eciga deci-ci, erogá ohacic   efej rot   mofur ofogesis noga ah*
       s/he get.up slow-RED hence shake.off hair about ash   pale   REL lie

> *jig   efej*.
> LOC   hair
> He got up very slowly, so (then) shook off his fur with the pale ashes which
> were in his fur.

38. *Okuk no-ma-i   edá, misi,   eri   i-osusuy   rot*.
  like   DNR-far-GIV then   bandicoot they.PL 3PL-startled about
  Then that having happened, the bandicoots, they were startled as a result

39. *Eri   i-ohot, Mif   mi-ek   mar kocka roga*.
  they.PL 3PL-say we.PL 1PL-see thing well   first
  They said, "We (should have) looked well first."

40. *Mes   noga orna ekena no-ma-i,   ofa   oj   jig mesiga deci-ci*
  dog   REL   man red   DNR-far-GIV s/he descend LOC ladder slow-RED

  skod mow ni eyet   osuj ofon   amok(a)-ir   noga i-en-owha
  to   land for follow upon 3SGPOS friend-PL   REL   3PL-DUR-leave

  kog   jig   no-mis-i.
  ahead   LOC   DNR-former-GIV
  The dog who was an old man, he very slowly descended the ladder to the ground
  to follow after his friends who had been leaving ahead to that place [their
  homes].

41. *Ofa   éysaha jig mow jog,   edá   ofa ofof osuj ofon   amok(a)-ir*
  s/he   reach   LOC land already then s/he run upon 3SGPOS   friend-PL

  no-ma-i.
  DNR-far-GIV
  (When) he reached the ground, then he ran after his friends.

42. *Eysaha kereng(a) eri,   erogá ofa   ohot gug eri   no-mis-i*
  reach   upon   they.PL hence s/he say   to they.PL DNR-former-GIV

  ohot, Yua   osuj i-ejmeg.
  say   you.PL upon 3PL-spine.
  [When] he came upon them, so he said to them, "You (should) double back.

43. *Misi   dokun ofon   amok(a)-ir   noga i-en-eker*
  bandicoot and   3SGPOS friend-PL   REL   3PL-DUR-sit

rohog   *jig mod no-mis-i,*   *eri*   *i-em-osut*
place.departed.from   LOC house DNR-former-GIV   they.PL   3PL-IRR-mimic

mif   noga mi-oyka,   *erogá mi-odra   ebej   et-ak   eyneg-neg*
we.PL REL   1PL-dance hence 1PL-penis globular NUM:3-two sway

tusus.”
to.and.fro
The bandicoot and his friends who are staying behind in the house, they would imitate us who danced so our two testicles swayed back and forth.

44.   *Okuk no-ma-i   edá, mes, eri   i-oyok   mar esebra.*
       like   DNR-far-GIV then dog   they.PL 3PL-swear thing continous
       Then that being so, the dogs, they cursed on and on.

45.   *Eri   i-ohot mogum   ni i-oksomus skod misi,   eri*
       they.PL 3PL-say each.other for 3PL-return to   bandicoot, they.PL

       no-mis-i.
       DNR-former-GIV
       They said to each other to return to the [place of] the bandicoots, them.

46.   *Mes, eri   i-ejeka skod erin   i-osnok   noga i-en-ebah   mod*
       dog   they.PL 3PL-call to   3PLPOS 3PL-person REL   3PL-DUR-live house

       or-(u)m-orm(a) noga ot   jig no-mej.
       NUM:7-CST-RED   REL   stand LOC DNR-remote
       The dogs, they called their relatives who lived in several houses which were there yonder.

47.   *Okuk no-ma-i   edá, eri   romreg i-er-em-es-im(a)   jog,*
       like   DNR-far-GIV then they.PL all   3PL-CAUS-RECIP-press already

       erogá eri romreg i-oksomus skod misi, eri ni i-ogow.
       hence they.PL all 3PL-return to bandicoots, they.PL for 3PL-chop
       Then that having happened, they all gathered, so they all returned to the bandicoots, them to kill (them).

48.   *Eri   i-eyja i-éysaha jog,   edá eri   i-osot   i-osnok*
       they.PL 3PL-go 3PL-reach already then   they.PL 3PL-count 3PL-person

> *ni i-edegejg(a)   misi   ofon   i-osnok   no-ma-i.*
> for 3PL-match.up bandicoot 3SGPOS 3PL-person DNR-far-GIV
> They went [and] arrived [there], then they counted up the people to match up to the bandicoots' relatives.

49. *Erogá   mes,   eri   i-osok   ni   i-ojok   eri,   edá   eri*
     hence   dog   they.PL 3PL-climb.up for 3PL-beat they.PL then they.PL

     i-ogos   romreg.
     3PL-die   all
     So, the dogs, they climbed up [into the house] to beat them, then they died entirely.

50. *Edá,   mes,   eri   i-orka   eri,   erogá i-owha   rot   jig*
     then   dog   they.PL 3PL-carry they.PL hence 3PL-leave about LOC

     erin   mod.
     3PLPOS house
     Then, the dogs, they carried them, so (they) left as a result for their houses.

51. *Okuk no-ma-i   edá,   mes   noga orna eken(a) no-mis-i,   ofa*
     like   DNR-far-GIV then dog REL man red DNR-former-GIV s/he

     orka misi   noga orokec.
     carry bandicoot REL   large
     Then that having happened, the dog who was an old man, he carried a bandicoot who was large.

52. *Ofa   orka, tiná em-owas   éra.*
     s/he   carry but   IRR-strong   NEG
     He carried it, but (he) wasn't strong.

53. *Ofa   ofon   ofon (ew)es   tin.*
     s/he   3SGPOS tooth cavity   also
     He had gaps in his teeth also.

54. *Mes enia   i-em-owha   fen   ofa   jog.*
     dog   some.other 3PL-IRR-leave from s/he   already
     Some other of the dogs would have left him.

55. *Ofa   or-a   ofon er-orka.*
     s/he   hold-PGE tooth CAUS-carry
     He carried (it) with his teeth.

56.   *Eysaha meregah,   edesk(a) ni eker rot   oduy efenen, erogá*
        reach   on.the.way   release for sit   about front hot   hence

        em-orka   somus.
        IRR-carry   back
        [When] he was on the way, (he) released it to sit for panting, so (then) he would
        carry it again.

57.   *Ofa   eker, erogá   em-omna ornoj   rot   misi   ofuga noga ah*
        s/he   sit   hence   IRR-lick   tongue   about bandicoot blood REL   lie

        jig   ohac,   tiná   otk-amok(a).
        LOC   mouth   but   tasty-RED
        He sat (rested), so he licked his tongue with the bandicoot's blood which was in
        his mouth, but it tasted really good.

58.   *Okuk no-ma-i   edá,   ofa et ofon   misi   no-ma-i,   edá*
        like   DNR-far-GIV then   s/he eat 3SGPOS bandicoot DNR-far-GIV then

        em-oys-amos(a).
        IRR-finished-RED
        Then that having happened, he ate his bandicoot, then it would be over with.

59.   *Erogá,   ofa   eyet   osuj ofon   amok(a)-ir   noga i-en-okog*
        hence   s/he   follow   upon 3SGPOS   friend-PL   REL   3PL-DUR-precede

        no-mis-i.
        DNR-former-GIV
        So, he followed after his friends who were preceding (him).

60.   *Edá, ofa   éysaha kereng(a) eri,   erogá eri   i-esisga ofa,*
        then s/he   reach   upon   they.PL hence they.PL 3PL-ask s/he

        Buwun misi   no-mis-i   erá   ah hádefa?
        2SGPOS bandicoot DNR-former-GIV THM   lie where
        Then, he came upon them, so they asked him, "Your bandicoot, where is it?"

61.   *Ofa   ohot, Dif di-et   jog-a.*
        s/he say   I 1SG-eat   already-PGE
        He said, "I ate it already."

62.   *Okuk no-ma-i   edá, ofon   amok(a)-ir tin,   eri   i-et*
      like   DNR-far-GIV   then   3SGPOS friend-PL   also   they.PL   3PL-eat

      misi   noga i-orka   no-mis-i,   edá   oys-omos.
      bandicoot REL   3PL-carry DNR-former-GIV then   finished-RED
      Then that having happened, his friends also, they ate the bandicoots which they
      carried, then it was over.

63.   *Okuk no-ma-i   erogá, mes, eri   i-eska   mek eke,   misi*
      like   DNR-far-GIV   hence   dog   they.PL   3PL-chew   pig   ENUM bandicoot

      eke,   dokun   mar rejrej tin.
      ENUM and   thing around also
      So that having happened, the dogs, they also chew (eat) pigs, bandicoots, and
      things (animals) of that type.

64.   *Eri   i-em-orka   jig mod éra; eri   i-et   jig   mowah*
      they.PL   3PL-IRR-carry   LOC house NEG   they.PL   3PL-eat   LOC   outside

      esebra   gijga.
      continuous   only
      They don't carry (them) to the house; they just eat (them) in the forest all the
      time.

65.   *No-ma-i   erá ofoj   ah ni   mes,   eri   eyja*
      DNR-far-GIV   THM pre.set lie for   dog   they.PL   go

      er-os   tisef.
      CAUS-move.horizon   today
      That is the pattern for dogs, them up to today.

66.   *Mar no-ka-i   fen mifin   medin(a)-ir noga i-en-ebah   jig*
      thing DNR-near-GIV   from 1PLPOS   grandpar.-PL REL   3PL-DUR-live   LOC

      mow=kef sis   jog.
      land=here   past   already
      These things were from our ancestors who lived in this place in the past.

67.   *Eri   erá   i-en-osot   mar no-kef,   erogá mif   tin*
       they.PL THM   3PL-DUR-count thing DNR-here   hence we.PL also

       mi-en-ejgen   rot.
       1PL-DUR-know   about
       They recounted these things, so we also know about (them).

68.   *Ocruk.*
       match.up
       That's it.

Text 10: *Iwari* **and** *Iwarsa*

Several incidents in this story have parallels in the *Ibori* stories found in Meyah and Sougb (Miedema and Reesink 2004:95, 100-101). This text was given by Sius Orocomna in January 2000.

Synopsis:

Two brothers *Iwarsa* and *Iwari* married two sisters *Ejiwar* and *Ejines*. *Iwari's* wife, *Ejiwar* gave birth to a male child. Quite soon afterward, the two brothers left for the Sougb area to get goods for a brideprice payment. When their husbands didn't return immediately, the women and their child traveled to the Sougb area looking for their husbands, asking people in three places for information. Each place reported that the men had stopped by and been given food, but it had been months ago. In the fourth location, they came upon the man *Inomsoh* (*Inyom* in Sougb, *Inonsoha* in Meyah) who was mute, deaf, and had a blocked anus. The women married him and lived with him. Once when working in the garden, they found a snake, which they took back to the house, presenting it to the man. The snake leaped up and wound itself around the man, shocking him, so that he was able to hear and speak, and his anus became unblocked. Then the man and his (new) wives held a traditional feast, inviting people from all over, including the Sougb area. When the women's original husbands came to the feast, they realized that the child was theirs and took him and left. The women followed them but were not allowed to take back the child. The women (in despair) turned themselves into two kinds of plants:a tree-born parasite plant and a wild jackfruit tree. (Both of these plants are considered to contain malevolent spirits.)

1.   *Mahti fen   Iwari   dokun   m-ok-esa   Iwars(a).*
       legend from Iwari   and   NR-sib.s.s.-yg. Iwarsa
       The legend [is] about Iwari and (his) younger brother Iwarsa.

2.   *Sis sokomow u-m(e)j-a   erá,   Iwari dokun Iwars(a), ergog*
       past beginning NONVIS-remote-PGE THM   Iwari and   Iwars   they.DU

       y-eker jig   memeg(a)   noga owoka Iwari Ejmeg.
       DU-sit LOC   mountain   REL   name   Iwari spine
       Long ago in the distant past, Iwari and Iwarsa, they lived on a mountain that was named Iwari's Ridge.

3.   *Edá, ergog   y-osotka y-ej-y-efer   erg-ak.*
       then   they.DU DU-marry DU-female-DU-child NUM:1-two
       Then, they married two young women.

4. *Noga owoka Ejiwar dokun ofon   m-ok-esa   noga owoka*
   REL   name   Ejiwar and   3SGPOS NR-sib.s.s.-yg REL   name

   Ejines.
   Ejines
   One was named Ejiwar and her younger sister who was named Ejines.

5. *Eri   i-ebah jig mow no-ma-i   éysaha mesta   ciyja tahgur.*
   they.PL 3PL-live LOC land DNR-far-GIV reach   month five four
   They lived in that place up to nine months.

6. *Edá, Iwari ofon   mohena, Ejiwar, ofa ok   efer orna erg-es*
   then Iwari 3SGPOS wife   Ejiwar s/he bear child man NUM:1-one

   jog.
   already
   Then, Iwari's wife, Ejiwar, she gave birth to a male child.

7. *Edá, ofon   m-ok-esa   Ejines, ofa eker mow jig mod efeyu.*
   then 3SGPOS NR-sib.s.s.-yg Ejines s/he sit   land LOC house immature
   Then, her younger sister, Ejines, s/he stayed [on the] ground in the small
   [birthing] house.

8. *Edá m-ok-era,   ofa ohot gug ofon   m-ok-esa,   Bua*
   then NR-sib.s.s.-old s/he say   to 3SGPOS NR-sib.s.s.-yg. you.SG

   bi-osok   mod orokec j(ef)a.
   2SG-climb.up house large   DEON-PGE
   Then, the older sister, she said to her younger sister, "You should go up to the
   large (main stilt) house."

9. *Edá, m-ok-esa   ohot gug m-ok-era,   Kus   no-kef,   dif*
   then NR-sib.s.s.-yg. say   to NR-sib.s.s.-old short.span DNR-here I

   di-em-osok   jig   mod orokec néesa, esha dif di-eker jig
   1SG-IRR-climb.up LOC house large   not.yet from I   1SG-sit LOC

   no-kef   ros.
   DNR-here still
   Then, the younger sister said to the older one, "Right now, I will not go up to the
   large house yet, because I still [want to] remain here."

10. *Kus   no-ma-i   tin,   ergen   mahina Iwari dokun   Iwarsa,*
     short.span DNR-far-GIV also   3DUPOS husband Iwari and   Iwars(a)

     ergog   y-owha   jig   mow Mosui.
     they.DU DU-leave LOC   land Sougb
     Also at that time, their husbands, Iwari and Iwarsa, they left for the Sougb area.

11. *Ergen   mohen(a) erá   y-eker   jig mowos   no-ma-i.*
     3DUPOS wife   THM   DU-sit   LOC village   DNR-far-GIV
     Their wives stayed in the village.

12. *Ergog   y-owha   jig mow Mosui   ni y-ohsud   mar*
     they.DU DU-leave LOC land Sougb   for DU-look.for   thing

     owot-ot   ni y-er-ej   m-ej   okowa.
     secretion-RED for DU-CAUS-open NR-female   obligation
     They left for Sougb area to search for lots of goods to pay off the brideprice.

13. *Edá, ergen   mohena y-eker y-om-um   jug   moroj,   tiná*
     then 3DUPOS   wife   DU-sit DU-anticipate-RED against path   but

     ergen   mahina y-em-éysaha   nes-is   kereng(a) ergog   éra.
     3DUPOS   husband DU-IRR-reach   quick-RED upon   they.DU NEG
     Then, their wives were expectantly watching the path, but their husbands didn't quickly appear to them.

14. *Okuk no-ma-i   edá,   ergog   y-eker, tiná y-ek   ergen   efer*
     like DNR-far-GIV then   they.DU DU-sit but   DU-see   3DUPOS   child

     no-ma-i,   ofa orokec tek-tek jog.
     DNR-far-GIV s/he large   bit-RED already
     That having happened, then they waited, but saw that their child, he had already [become] a bit big(ger).

15. *Erogá, ergog   y-eyet   osuj ergen   mahina   jig   mow noga*
     hence   they.DU DU-follow upon 3DUPOS husband   LOC   land REL

     y-en-owha   jig   no-mis-i.
     DU-DUR-leave   LOC   DNR-former-GIV
     So, they followed after their husbands to the area that they had left for.

16. *Ergog   y-éysaha   kereng(a) i-osnok   enia   jig mow erg-em,*
     they.DU DU-reach   upon   3PL-person some.other   LOC land   NUM:1-CST

     edá   ergog   y-esisga jug   ohot   ergen   mahina erá   y-ewer jig
     then   they.DU DU-ask   against say   3DUPOS   husband THM   DU-pass LOC

     no-kef=ey?
      DNR-here=Q
     They came upon some other people in another place, then they questioned them
     whether their husbands had passed there.

17. *Edá, eri   no-ma-i   i-ohota gug ergog   ohot, Ergog   y-ewer*
     then   they.PL   DNR-far-GIV 3PL-say to they.DU say   they.DU DU-pass

     rudud   mif jig no-kef,   edá   mif   mi-eyta meni,   dokun mi-ohum
     by   we.PL LOC DNR-here then   we.PL 1PL-take banana and   1PL-uproot

     mom   mi-eyta gug   ergog,   erogá y-en-ek   en-ec
     cassava 1PL-take to   they.DU hence DU-DUR-see   DUR-become

     m-ef-(ew)ec,   está   aks(a)-is   nog(a)-i-da-i.
     NR-distribute-cavity   fork   tall-RED   REL-VIS-up-GIV
     Then, they said to them, "They passed by us here, then we gave (them) bananas
     and uprooted cassava [and] gave to them, so you (can) see [the place where we
     got the cassava] is becoming an abandoned garden, [and] the forks [of the trees]
     are very high up there.

18. *Edá, y-ejena   no-ma-i   dokun ergen efer no-ma-i,   eri*
     then   DU-woman DNR-far-GIV and   3DUPOS child DNR-far-GIV they.PL

     i-ecira   turur   tas, edá i-éysaha kereng(a i-osnok   jig
     3PL-walk connectedly again then 3PL-reach upon   3PL-person LOC

     mow erg-em   tas.
     land NUM:1-CST   again
     Then, the two women and their child, they traveled on again, then happened
     upon people in another place again.

19. *Edá, y-ejena   no-ma-i   y-esisga jug   osok   jig   ergen*
     then   DU-woman DNR-far-GIV DU-ask   against concerning   LOC   3DUPOS

mahina   tas.
husband   again
Then, the two women asked again regarding their husband.

20.   *Edá   eri,   i-osnok   no-ma-i   i-ohot   gug   ergog   ohot, Y-orna*
then   they-PL   3PL-person DNR-far-GIV 3PL-say   to   they.DU   say   DU-man

y-erg-ak   no-ma-i   erá   y-owra   rudud mif   jig   no-kef,   edá
DU-NUM:1-two   DNR-far-GIV THM   DU-cross   by   we.PL LOC DNR-here   then

mif   mi-eyta meni,   mi-oc   meresa,   dokun mi-ohum   mom   tin.
we.PL 1PL-take banana 1PL-sever   sugarcane and   1PL-uproot   cassava also
Then, they, the people said to them, "The two men crossed by us here, then we
gave (them) bananas, cut off sugarcane, and uprooted cassava also [for them].

21.   *Edá, mif   mi-eyta gug   ergog.*
then   we.PL 1PL-take to   they.DU
Then, we gave (cassava) to them.

22   *Fen   mar-ewes   no-ma-i   mif   mi-er-ef,   y-en-ek*
from   thing-cavity   DNR-far-GIV we.PL 1PL-CAUS-distribute   DU-DUR-see

en-er   aks-iks(a)   nog(a)-i-d(a)-i.
DUR-grow   high-RED   REL-VIS-up-GIV
From the cuttings we planted, you see [the plants] are growing very tall up there.
(*mar-ewes* = cuttings from tubers)

23.   *Edá, ergog   y-owha   turur   y-éysaha   kereng(a)   i-osnok*
then   they.DU DU-leave   connectedly DU-reach   upon   3PL-person

enia   tas.
some.other   again
Then, they left continuing on, [and] happened upon some people again.

24.   *Edá, ergog   y-esisga ju   okuk no-ma-i   tas*.
then   they.DU DU-ask against   like   DNR-far-GIV again
Then, they questioned (the people) again in the same way.

25.   *Edá, eri   i-ohot, Y-es   y-erg-ak   no-ma-i   erá, ergog*
then   they.PL   3PL-say   DU-male DU-NUM:1-two   DNR-far-GIV THM   they.DU

y-ewer   rudud   mif   jig   no-kef.
DU-pass by   we.PL LOC   DNR-here
Then, they said, "The two males, they passed by us here.

26.   *Edá, mif   mi-ob   mesinom dokun mi-ohom mom   eke   mesi*
      then   we.PL 1PL-pluck corn   and   1PL-uproot cassava ENUM taro

      eke.
      ENUM
      Then, we picked corn and uprooted cassava, taro.

27.   *Edá, mif   mi-eyta gug ergog, erogá y-owha   rot   jog.*
      then   we.PL 1PL-take to they.DU hence   DU-leave about already
      Then, we gave it to them, so they already left as result."

28.   *Edá, y-ejena   no-ma-i,   ergog y-owha   turur   tas,*
      then DU-woman   DNR-far-GIV they.DU DU-leave   connectedly again

      y-éysaha kereng(a) efer, orna ekena noga owoka Inomsoh.
      DU-reach upon   child man   red   REL   name   Inomsoh
      Then, the two women, they again left continuing on [and] happened upon a guy,
      the old man whose name was Inomsoh. (Colloq. child = guy/kid)

29.   *Efer orna ekena no-ma-i,   ofon   osuy et-ak   dokun ohac*
      child man red   DNR-far-GIV 3SGPOS ear   NUM:3-two and   mouth

      dokun esták   erá   romreg of   m-en-im(a) jug.
      and   buttock THM all   close   RECIP-come against
      The old guy, his two ears and mouth and anus, all were closed off.

30   *Edá, ofa   eker ofoj   ohur gijga.*
      then s/he   sit   end   bare only
      Then, he just sat mutely. (end of tongue bare = mute)

31.   *Okuk no-ma-i   edá,   orna no-ma-i,   ofa osotka y-ejena*
      like   DNR-far-GIV then   man   DNR-far-GIV s/he marry   DU-woman

      no-ma-i.
      DNR-far-GIV
      That having happened, then the man, he married the two women.

32. *Edá, y-ejena   no-ma-i,   ergog   y-ah   efer   orna no-ma-i.*
     then DU-woman DNR-far-GIV they.DU DU-lie   child man   DNR-far-GIV
     Then, the women, they married the guy.

33. *Edá, eri   i-ebah jig   no-ma-i.*
     then they.PL 3PL-live LOC   DNR-far-GIV
     Then, they lived in that place.

34. *Eri   i-en   maekena dokun i-or   mod noga orokec tin.*
     they.PL 3PL-do garden   and 3PL-build house REL large   also
     They made a garden and also built a house which was large.

35. *Erogá, y-ejena   y-erg-ak   no-ma-i   y-eyja jig   maeken*
     hence   DU-woman   DU-NUM:1-two DNR-far-GIV DU-go   LOC   garden

     ni   y-ohsud   mar-mosorn(a), tiná   ergog   y-éysaha kereng(a)
     for   DU-search thing-hunger   but   they.DU DU-reach   upon

     mogos(a) noga owoka mogos(a) i-en-esir   ofrah(a).
     snake   REL name   snake   3PL-DUR-fall   green
     So, the two women went to the garden to get food, but they came upon a snake
     that was named green they-fall-snake.

36. *Edá, ergog   y-esed, edá y-eba   jig meni   efi, erogá   y-owha*
     then   they.DU DU-grab then DU-wrap LOC banana leaf hence   DU-leave

     rot   jig   mod.
     about LOC   house
     Then, they caught (it), then wrapped (it) in a banana leaf, so (they) left with
     it for the house.

37. *Eysaha jig   mod jog,   edá   ergog   y-eyta mar no-ma-i   gug*
     reach   LOC   house already then   they.DU DU-take thing DNR-far-GIV to

     orna ekena no-ma-i,   erogá ofa ahada   koska-moka jig   oduy.
     man   red   DNR-far-GIV hence s/he dismantle well-RED   LOC   front
     [When] (they) reached the house, so they took the thing to the guy, so he opened
     (it) carefully at his front.

38. *Oj(u)-(er)g-es   edá,   mogos(a) no-ma-i,   ofa ohas-mes, edá*
     ORD-NUM:1-one then   snake   DNR-far-GIV s/he hop-RED   then

er-ef-ref   *orna ekena no-ma-i,*   *edá*   *ofa*   *ogor*   *takin.*
CAUS-wind-RED   man   red   DNR-far-GIV   then   s/he   scream   vigorously
In a moment then, the snake, he quickly jumped, then wound around the old guy, then he screamed vigorously.

39.   *Okuk no-ma-i   edá,   ofa odu mar, ek mar, dokun eg   mar tin*
       like   DNR-far-GIV   then   s/he tell thing see thing and   hear   thing also

       jog.
       already
       Then, that having happened, he (could) speak, see, and also hear.

40.   *Kus   no-ma-i   tin, orna ekena noga owoka Inomsoh   dokun*
       short.span DNR-far-GIV also man   red   REL   name   Inomsoh   and

       ofon   mohena y-erg-ak   no-ma-i,   eri   i-oyna   mar-mosorn
       3SGPOS   wife   DU-NUM:1-two DNR-far-GIV they.PL 3PL-cook   thing-hunger

       noga   edeses.
       REL   many
       [At] that time also, an old man who was named Inomsoh and his two wives, they cooked up lots of food (for a traditional feast).

41.   *Erogá, eri   i-ah   mofga skod i-osnok   noga fen   (i-ebah*
       hence   they.PL 3PL-hack   straw   to   3PL-person REL   from   3PL-live

       jig) Mosmir   eke,   fen   Morum eke,   fen   Miyah   eke,   fen   Mosui
       LOC Ayamaru   ENUM from   Kebar   ENUM from   Meyah   ENUM from   Sougb

       eke,   fen   Mosurs(a) tin   eke.
       ENUM from   Hatam   also ENUM
       So, they sent invitations to people who were from (living in) Ayamaru, from Kebar, from Meyah, from Sougb, also from Hatam.

42.   *Eri   romreg i-en   ni   i-et   mar-mosorn(a)   dokun*
       they.PL all   3PL-come for 3PL-eat thing-hunger   and

       i-oyka-mers(a)   tin.
       3PL-dance-floor   also
       They all came to eat food and inside-dance also.

43.   *Edá, eri   no-ma-i   i-odu   ofoj   ni i-éysaha.*
       then   they.PL DNR-far-GIV 3PL-tell pre.set   for 3PL-reach
       Then, they pledged to appear.

44.   *Edá, efer noga Iwari ofon   no-mis-i,   ofa ebisa esebra.*
       then child REL Iwari 3SGPOS DNR-far-GIV s/he cry   continuous
       Then, [when the Sougb pledged to come] the child who was Iwari's, he cried
       continuously [as a sign that his father would appear].

45.   *I-osnok   fen   mow erg-em   i-oruskej, tiná ofa ebisa esebra.*
       3PL-person from land NUM:1-CST 3PL-handle but s/he cry   continuous
       People from other places held (him), but he cried on and on.

46.   *Eri   no-ma-i   i-en   i-oyka-mers(a)   edá   i-oksomus jig*
       they.PL DNR-far-GIV 3PL-come 3PL-dance-floor then 3PL-return LOC

       erin   mowos.
       3PLPOS   village
       Those ones came [and] inside-danced, then returned to their villages.

47.   *Okuk no-ma-i   edá, eri   noga fen   mow Mosui i-en*
       like DNR-far-GIV then they.PL REL   from land Sougb 3PL-come

       i-éysaha   jig meregah.
       3PL-reach LOC on.the.way
       Then that having happened, they who were from the Sougb area came [and]
       reached part way.

48.   *Edá, efer no-ma-i   ebisa tas.*
       then child DNR-far-GIV cry   again
       Then, the child cried again.

49.   *Oj(u)-(er)g-es   edá, eri   no-ma-i   i-éysaha, erogá ergog*
       ORD-NUM:1-one   then they.PL DNR-far-GIV 3PL-reach hence they.DU

       y-ek,   tiná y-otomta   ergen mohena, Ejiwar dokun Ejimes erá
       DU-see but DU-recognize 3DUPOS wife   Ejiwar and   Ejimes THM

       i-en-ebah=kef.
       3PL-DUR-live=here
       Later then, they arrived, so they (two) saw, but (unexpectedly) recognized their
       wives Ejiwar and Ejimes were here.

50.   *Okuk no-ma-i,   ergen mohena tin y-otomta   ergen mahina*
       like DNR-far-GIV 3DUPOS wife   also DU-recognize 3DUPOS husband

no-ma-i   tin   jog.
DNR-far-GIV   also   already
That being so, also their wives also had recognized their husbands.

51.   *Y-efer   y-es   no-ma-i,   ergog   y-oruskej   ergen   efer*
      DU-child   DU-male DNR-far-GIV   they.DU DU-handle 3DUPOS child

      no-ma-i,   edá   ebisa osoner.
      DNR-far-GIV   then   cry   ceased
      The two guys, they handled their child, then he stopped crying.

52.   *Ergog   y-oyka   y-éysaha etkebrok   ni   men-esif,   erogá y-en merej*
      they.DU DU-dance   DU-reach nearby   on   day-open   hence DU-do avenger

      ogá   noga okuk no-kef:
      speech   REL   like   DNR-here
      They danced [and] approached near to daylight, so (they) made revenge songs
      which were like this:

53   *Di-odruna,   di-en-oswos, di-ohot,   mes   Inomsoh   efer   eke,*
      1SG-unaware   1SG-DUR-?   1SG-say   male   Inomsoh   child   almost

      tiná Iwari efer   nom, Iwars(a) efer   nom, en-ebisa ahda,   en-ebisa
      but   Iwari child VER   Iwarsa child VER   DUR-cry irritated DUR-cry

      ocka=kef.
      bitter=here
      I was unaware, I was ?, (I) said, the male, Inomsoh, the child, not quite, but (it)
      really is Iwari's child, really is Iwarsa's child, crying irritatingly, crying bitterly.

54.   *Ergog, y-es   y-en mar no-ma-i   oys-amos,   erogá   y-ok*
      they.DU DU-male DU-do thing DNR-far-GIV finished-RED hence   DU-flee

      rot   ergen   efer   no-ma-i   jig mow ni   y-eyja   had   miyes
      about 3DUPOS child DNR-far-GIV LOC land for DU-go   toward   dugout

      noga y-esah jig   miy.
      REL   DU-put LOC   water
      They, the males did that [so] it was finished, so they fled with their child to the
      ground to go to the dugout which they had placed in the river.

55.   *Edá, eri   i-ahaw   jig   miy   odog.*
       then   they.PL 3PL-descend LOC   water chest
       Then, they descended onto the river's surface.

56.   *Oj(u)-(er)g-es   edá,   ergen   mohena no-ma-i,   ergog   y-ofof   osuj,*
       ORD-NUM:1-one   then   3DUPOS wife   DNR-far-GIV they.DU DU-run   upon

       tiná   eri   i-owha   jog.
       but   they.PL 3PL-leave already
       Later then, their wives, they ran after (them), but they had already left.

57.   *Edá,   y-ejena   no-ma-i   y-ofof kuk   mow, y-éysaha kereng(a)*
       then   DU-woman   DNR-far-GIV DU-run along land   DU-reach   upon

       eri,   tiná   efer   erá,   ofa   eker   jig   miyes.
       they.PL but   child THM   s/he sit   LOC   dugout
       Then, the women ran along the riverbank [and] came upon them, but the child,
       he sat in the dugout.

58.   *Erogá,   y-ejena   y-ot   jig   mowah   y-eyta   y-omomk-(of)oj*
       hence   DU-woman   DU-stand LOC   outside DU-take DU-breast-end

       gug   efer   no-ma-i.
       to   child DNR-far-GIV
       So, the women stood outside [the dugout] [and] gave their nipples to (nursed)
       the child.

59.   *Okuk no-ma-i   edá,   eri   i-owha   turur   tas.*
       like   DNR-far-GIV then   they.PL 3PL-leave connecting   again
       Then that having happened, they left continuing on again.

60.   *Oj(u)-(er)g-es,   ergog   y-ejeka gug ergen   mahina no-ma-i,   esha*
       ORD-NUM:1-one   they.DU DU-call to   3DUPOS husband DNR-far-GIV from

       y-em-eyta   meni-mokow   gug   ergen   efer   no-ma-i.
       DU-IRR-take banana-cooking to   3DUPOS child DNR-far-GIV
       Later, they called to their husbands, because (they) would give cooking bananas
       to their child.

61.   *Ergog y-ejeka mar okuk no-ma-i   esebra.*
       they.DU DU-call thing like   DNR-far-GIV continuous
       They called out things like that on and on.

63. *Okuk no-ma-i   edá,   m-ok-esa   noga owoka Ejines   erá   ofa*
    like   DNR-far-GIV   then   NR-sib.s.s-yg REL   name   Ejines   THM   s/he

    osok,   edá eker jig   merga esta   teraw.
    climb.up   then sit   LOC   wood   fork   above
    Then that having happened, the younger sister who was named Ejines, she
    climbed up, then sat in the fork of a tree above.

64. *Edá,   ofon   m-ok-era,   ofa eker jig   mow.*
    then   3SGPOS   NR-sib.s.s-old.   s/he sit   LOC   land
    Then, her sister, she sat on the ground.

65. *Oj(u)-(er)g-es   edá, y-erg-em   y-es   mar   uska   noga*
    ORD-NUM:1-one   then   DU-NUM:1-CST   DU-become   thing   parasite   REL

    eker jig   merga está,   edá y-erg-em   y-es   muhusga
    sit   LOC   wood   fork   then   DU-NUM:1-CST   DU-become   wild.jackfruit

    noga en-ot   mow.
    REL   DUR-stand land
    Later then, one of the two became a parasite plant which is in tree forks, then the
    other became a wild jackfruit tree which is on the ground.

66. *Merga no-ka-i,   sokomow erá, mifin   m-edin(a)-ir, eri*
    wood   DNR-near-GIV   beginning THM   1PLPOS   NR-grandpar.-PL   they.PL

    i-oguga   gug mar   no-kef.
    3PL-placate   to   thing   DNR-here
    These trees, long long ago, our ancestors, they placated (made offerings) to
    these things.

67. *Mar no-ka-i,   mifin   m-edin(a)-ir   noga sis, eri   i-osot*
    thing DNR-near-GIV   1PLPOS   NR-grandpar.-PL   REL   past they.PL   3PL-count

    gug mif, erogá mi-en-ejgen   rot   mar no-ka-i.
    to   we.PL hence 1PL-DUR-know   about thing   DNR-near-GIV
    These things, our ancestors who [lived] earlier, they recounted to us, so (then)
    we know about these things.

68. *Ocruk-a*
    match.up-PGE
    That's it.

APPENDIX C
List of source texts

The list below gives the texts used as data resources in the formation of the grammar. Titles assigned are my own.

Text number	Title	Speaker	Date recorded
1	*Erijena uk ifer* Women give birth to children	Edison Orocomna	10/95
2	*Tinefa ingit mogug* How Charcoal is Made	Edison Orocomna	3/96
3	*Mod jig merga esta* Houses in trees	Edison Orocomna	3/96
4	*Isnok ised mogos* People capture a snake	Edison Orocomna	1/96
5	*Mem Ned dokun Mohus* The cockatoo and the parrot	Sius Orocomna	2/00
6	*Ijisir dokun Yom* Ijisir and Yom	Edison Orocomna	11/95
7	*Mahti fen mifin medina Orocomna* Legend of our Orocomna ancestor	Sius Orocomna	5/00
8	*Muysa* The shaman	Lukas Orocomna	3/95
9	*Mahti fen Mes dokun Misi* Legend of the Dog and the Bandicoot	Sius Orocomna	3/99
10	*Mahti fen Iwari dokun Mokesa Iwarsa* The legend of Iwari and Iwarsa	Sius Orocomna	1/00
11	*Mif mufjig min maeken* Help in garden	Edison Orocomna	9/95
12	*Daden ekok edesk mar noga efi* Release of the past	Edison Orocomna	9/95
13	*Sokomow mif miker ruruy* The old ways	Simson Orocomna	8/96
14	*Mar mosorka* Toilet hole	Ruben Orocomna	10/95

15	*Eri in ut mowah* Lie in wait	Edison Orocomna	10/95
16	*Dif dimosotka erija jig pantai* Desire to marry coastal woman	Edison Orocomna	9/95
17	*Mif mis merej* Becoming avengers	Simson Orocomna	11/95
18	*Eri umokeg efi jig* Poisoning	Moises Orocomna	10/95
19	*Medina Orocomna2* Orocomna 2	Edison Orocomna	9/95
20	*Mem ned dokun Mohus* 2 Parrot and Cockatoo2	Edison Orocomna	11/95
21	*Kus noga erijena idog* When women are pregnant	Edison Orocomna	1/96
22	*Mos orna in* Coming of foreigners	Semi Orocomna	9/95
23	*Mahti Samiwa dokun Samowa* Legend of Samiwa and Samowa	Sius Orocomna	2/99
24	*Mahti fen It-moku-ah jig Sumuy* Legend of Wild mushroom eater	Sius Orocomna	5/99
25	*Mahti fen Meders Isba Okeda* Legend from Meders Isba Okeda	Sius Orocomna	7/99
26	*Bua bimahawah edak* Don't be lazy	Edison Orocomna	1/96
27	*Mahti fen Isudga* Legend of Isudga	Sius Orocomna	5/99
28	*Miy efeyu rot mos* Fish ponds	Edison Orocomna	4/96
29	*Kembis* Malaria	Edison Orocomna	8/95

Appendix D
Wordlists

The Moskona-English wordlist, in addition to words and individual morphemes presented in this grammar, includes a number of other forms found in source materials. The list is primarily monomorphemic forms (roots and affixes), but polymorphemic forms, such as the ordinal adverbials and the phrasal expressions for the numerals are also given. Compound forms (i.e. noun and pronoun compounds) are not distinguished from monomorphemic forms. The emotional-state constructions are not included in the Moskona-English wordlist, but will be listed in the English-Moskona wordlist, as there are no dedicated lexical forms which express these concepts.

Alternative forms are listed after the main entry and are separated by a comma. Bound forms, whether roots, clitics or affixes, are marked with a hyphen to indicate their boundedness. Word-class membership is indicated in italics following each entry. Some abbreviations are repeated from the list of abbreviations and conventions at beginning of the book.

Abbreviations:

adv.	adverb	num.	numeral
att.mkr.	attitude marker	num.cl.	numeral classifier
conj.	conjunction	p/n.mkr.	person/number
deic.	deictic	prep.	preposition
foc.mkr.	focus marker	pron.	pronoun
interj.	interjection	quest.	question word
ints.	intensifier	rel.	relativizer
mkr.	grammatical marker	spec.	specifier
n.	noun	v.	verb
nr.	nominalizer		

Appendix D

Moskona-English wordlist

A

ager *n.* birdshot
ah *v.* lie (down)
ah *v* marry (female term)
ah *v.* hack
ah miy *v.* bathe
-aha *quest.* QUANTITY
-aha *ints.* INTENSIFIER suffix
ahabnina *v.* few
ahabnuk *v.* thin
ahac *v.* tie
ahacic *v.* agitate
ahacum *v.* inactive
ahada *v.* dismantle
ahah *v.* etch
ahahir *v.* growl (animal)
ahamow *v.* vomit
aharga *v.* dry
ahasha *v.* dream
ahasigen *v.* expectorate
ahatu *v.* surrender
ahaw *v.* descend
ahawah *v.* lethargic
ahaysa *v.* hard
ahda *v.* itch, be irritated
ahin *v.* calm down
ahinga *v.* break off with hands
ahisen *v.* play
ahka *v.* scrape
ahra *v.* crunch
ahra *v.* associate
ahta *v.* black
ahtuka *v.* be dirty
ahusta *v.* withhold
aksa *v.* be tall
amoka *n.* friend
amsa *v.* be silent
Ara *n.(loan)* God
ari *n.* week, Sunday
ariawun *n.* medicinal treatment,drug
arja *n.* female fish
aroga, yaroga *n.* song
aynun *v.* enduring
ayok *n.* mother (vocative)

B

bi- *pron.* 2SG pron. prefix
bua *pron.* 2SG personal (you)
buaha *pron.* 2SG reflexive (yourself)
busia *n.* k.o. arrow
buwun *pron.* 2SG possessive

C

c-, ocu-, oju- *mkr.* ordinator prefix
cergaha *quest.* how many times
cergak, ojugak *num.* twice
cergem *spec.* another time
cergergem *spec..* many times
cerges, ojuges *spec.* once, a moment
cergom *num.* thrice
ciyja *num.* five
ciyja erges *num.* six
cugrah *n.* fifth day ago
cumjog *n.* third day ago

D

dadin *pron.* 1SG possessive (my)
daka *prep.* advert
dakin *adv.* vigorously
dawr *n.* cookhouse
dec *prep.* same location as
deci *adv.* slowly
decir *adv* correct, real
decirma *adv.* definitely
deke *adv.* may
dekikir *adv* expectantly
di- *pron.* 1SG pron. prefix
dif *pron.* 1SG personal
difaha *pron.* 1SG reflexive
dokun *conj.* and, with
dudu *adv.* incrementally

E

e- *foc.mkr.* contrastive focus prefix
eb- *p/n.mkr.* 2SG poss. prefix (kinship)
eba *v.* wrap up
eba *v.* refuse
ebah *v.* live
ebah *v.* be raw
ebaha *v.* yank, jerk on
ebda *v.* knead

ebdin *v.* press down
ebe- *mkr.* verbalizer prefix
ebej *n.* globe (shaped)
ebej *n.* sortal classifier:STONE
ebekirka, ebrekirka *v.* be stubborn
eber *v.* complete
ebes *n.* cutting (of a plant)
ebga *v.* torn
ebi *v.* defecate
ebi *v.* be recent
ebibra *v.* flutter, blink
ebir *n.* head
ebireg *n.* headman, leader
ebirorha *n.* skull
ebisa *v.* cry
ebjij *v.* heave
ebka *v.* be cracked in two
ebna *v.* beckon
ebra *v.* spread
ebri *v.* be split
ebrosursa *n.* crown, pinnacle
ebrot *n.* horn (animal)
ebsa *v.* be broken off
ebsita *v.* infertile, sterile
ebskir *n.* relatives
ec *v.* buy
ec *v.* become
echa *quest.* when
echa *v.* look for (in known loc.)
eci *n.* penis
ecicka *v.* drop
ecif *v.* back up
eciga *v.* arise, get up
ecira *v.* walk, travel
ecirfa *n.* fingernail
ecka *v.* dish up
ecka *v.* search for
ecka *v.* satiated
eckajog *n.* day after tomorrow
ecki *n.* two days ago
ecu *v.* warn
ecug(rah) *n.* fifth day ago
ed *v.* strike, throw with force
ed *v.* set afire
ed *v.* join
ed- *num.cl.* class 2

ed- *p/n.mkr.* 1SG poss.prefix (kinship)
edá *conj.* then
edak *adv.* NEG.DEON
edega *v.* remove
edegejga *v.* be possible
edegejga, ocruk *v.* match up with
edem *v.* hide
edena *v.* exchange
edes *v.* many
edeska *v.* release
edi *v.* push against
edider *v.* be level
edif *v.* guess
edis *v.* miss, not match up
edma *v.* be visible
ednorur *v.* be enervated
eduec *v.* trade a child
eduera *n.* 1SG older sib. opposite sex
eduesa *n.* 1SG younger sib. opposite
　　　　sex
eduisa *n.* 1SG sib-in-law opposite sex
-ef *deic.* near
ef *v.* shoot, spear
ef *v.* do.in.turns, wind (around)
ef *v.* distribute
ef *v.* clear underbrush
efa *v.* raise animal
efa *v.* whittle
efagigow *v.* be joyful
efca *v.* delay
efca *n.* group, collection
efca *n.* hub
efdec *v.* spread
efed *n.* ingredient
efedes *n.* classificatory sibling
efef *n.* flap
efef *v.* ache
efef, efem *n.* sheath
efef, efew *n.* instance
efefej *n.* heart
efega *n.* body, trunk
efega *n.* sortal classifier:ANIMAL
efej *v.* be dried out
efeja *n.* hair, fur, feather
efem *n.* nest, pouch

efema *n.* ripe tuber
efembra *n.* flank
efemja *n.* root hair
efen *v.* be from
efena *n.* spirit, image
efena *v.* new
efenda *v.* dense
efenen *v.* hot, warm
efenga *v.* slender
efenin *v.* recent
efenok *n.* intestine
efer *n.* price
efer *n.* sore, wound
efer *n.* child
efer-ej *n.* daughter
efer-es *n.* son
eferiok *n.* small child
eferu *n.* segment
efet *v.* swab
efet *v.* singed, scorched
efeyu *v.* patterned, designed
efeyu *v.* immature
efeyu *n.* plant matter/ plantlife
efi *v.* used, former
efi *v.* be liquified
efi *n.* leaf
efi *n.* liquid
efi *v.* be sharp
efi *n.* sortal classifier:FLAT
efieyja *v.* be ready to eat
efif *v.* arrange
efifa, efirna *v.* feel chilled
efifra *v.* be leveled
efina *n.* sibling-in-law same sex
efir *n.* foam
efna *v.* flat
efrir *v.* broken in two
efsa *v.* white, clean, blank
efta *v.* contact
eg *v.* hear
ega *v.* trade
egak *n.* leg
ege *v.* scoop, dip out
egebja *v.* cuss out
egedid *v.* squeeze
egeja *v.* slit open

egen *v.* promise
egerag *v.* be delicate, fragile
egerna *v.* hail, cry out
eges *v.* high
eges *v.* chisel
egiger, ogugar *v.* cooled
egirgir *v.* flaming
egu *v.* drop intermittently
ej *n.* female
ej *v.* open (mouth)
ej efer *n.* young woman
ejeka *v.* call (out)
ejena *n.* woman
ejerfa *v.* spill
ejewjena *n.* young woman
ejga *v.* graze, abrade
ejgefta *v.* argue
ejgega *v.* be quieted
ejgen *v.* know
ejij *v.* twist (aside)
ejij *v.* take hostage
ejmeg *n.* spine
ejog *v.* be next
eju *v.* stalk
ejuo *v.* flicker
ek *v.* see
ek *v.* inject
eke *conj.* almost, ENUMERATOR
eke *v.* collide
ekej *v.* divide (up)
ekena *v.* red, brown
ekena *v.* glow
ekenga *v.* be restricted
eker *v.* sit
ekewen *v.* weigh down
eki *v.* weave bamboo
eki *v.* turn away from, avoid
ekinga *v.* tear
ekir *v.* be empty, void
ekok *n.* father (vocative)
ekrer *v.* be loose
ekris *v.* exceed
-em *spec.* constrastive specifier
emba *v.* be rotten
embisif *v.* stink
emesa *v.* fear

emka *v.* poison
emsa *v.* sniff
en *v.* do
en *v.* come
en *adv.* HITHER
en- *mkr.* DURATIVE marker
enam *n.* half
engaw *v.* be crooked
engit *v.* make
enia *pron.* some other
enin *v.* measure
enin *v.* light up
enira *v.* be blue
enu *v.* choose
er *v.* stir
er- *num.cl.* class 4
er *v.* grow
er *v.* shave
er *v.* hang, sag
erá *thematic.mkr.*
era *v.* throb
éra, gurá *adv.* negator
eregejga *v.* surround
ereni *v.* mark
eresha *v.* by means of
erewesha, es efer *n.* young man
erf- *num.cl.* class 5
erg- *num.cl.* class 1
erga *v.* wear s.t.
erga *n.* left side
ergaha *pron.* 3DU reflexive
ergakek *v.* be both
ergegaha *v.* be several
ergen *pron.* 3DU possessive
ergesis *v.* each
ergog *pron.* 3DU personal
eri *adv.* probably
eri *pron.* 3PL personal
eriaha *pron.* themselves (PL)
eriaha *pron.* 3PL reflexive
erija *pron.* they females
erijena *pron.* they women
erik, erirka *v.* be yellow
erin *pron.* 3PL possessive
eris *pron.* they (PL) male

ernof *v.* be dizzy
ernohuy *v.* be lightheaded
erogá *conj.* so, hence
ers- *num.cl.* class 6
ersa *v.* slice
eru *v.* peel in strips
es *v.* press (down), set
es *n.* male
es *v.* spray
es efer *n.* young man
esah *v.* put
esebra *v.* continuous
esed *v.* grab
esejah *v.* prepare
esejga *v.* swell
eseka *v.* poke, touch
eseki *v.* fix, make
esen *v.* distant
esenek *v.* prefer
eser *v.* pass
esesba *v.* be carved
eset *v.* prick
eseter *v.* be much more
esew *n.* multifircate (bananas)
esgenga *v.* taste acid
esha *v.* be from, afterwards
esha edá *conj.* therefore
esha ni *conj.* in order to
esia *v.* be surprised
esif *v.* open (up)
esij *v.* talk about
esim *v.* fall over
esir *v.* fall (down)
esirna *v.* be sick
esirna *n.* foam, bubble
esis *v.* exclude
esis *v.* hurt
esisga *v.* ask (a question)
esisif *v.* go back, step back
esisok *pron.* exclusive pronoun
esiwkjig *v.* allow
eska *v.* sting
eska *v.* sprinkle
eskeyra *v.* clear
eskijig *v.* agree

esma *v.* take by force
esta *n.* fork
esta *v.* suck
estak *n.* butt
estamug *v.* be short-bodied
estom *n.* thank, express gratitude
esua *v.* be curved
esua *v.* open, reveal
esuoja *n.* navel, umbilical cord
et *v.* eat
et *v.* support
et- *num.cl.* class 3
etaha *v.* yell
etefa *v.* be wet
etejen *v.* gauge
eterir *v.* be clear
etet *v.* be damp
etew *v.* be much
eteyja *n.* eye
etha *v.* join (bridge)
ethina *n.* husband (vocative)
ethona *n.* wife (vocative)
eti *v.* suffer (pain)
eti *v.* beg
etimeda *n.* appendage
etit *v.* trim
etitna *v.* pilfer
etiw *n.* elbow
etka *v.* split
etkebra *v.* be short
etma *n.* arm
etu, ecu *v.* be short interval, stubby
ewegweg *v.* dribble
ewek *n.* gallbladder
ewek *v.* be semi-solid
ewek *n.* globe, bump
ewek *v.* be thickened, rounded
eweken *n.* jaw
ewekesa *n.* midst
ewen *v.* weigh
ewer *v.* cross
ewes *n.* cavity
ewes *n.* fat
eweswa *v.* prove, give evidence
ewet *v.* semi-solid
ewet *n.* sortal classifier:SOFT

ey- *p/n.mkr.* 2SG/2DU poss.prefix (kinship)
-ey *mkr.* polar question marker
ey *v. w*eave, braid
eya *v.* flow
eyahahir *v.* block off
eyeg *v.* look at
eyenena *v.* be many
eyet *v.* adhere to
eyet *v.* follow after
eyha *v.* pay
eyj *v.* toss
eyja *v.* go (to)
eyjgej *v.* throw away
eyma *v.* dry up
eyma *v.* subside, ebb
eynegneg *v.* sway
eyorga *v.* lower
eyrir, ebrir *v.* vibrate, shimmer
eysa *v.* shine
eysaha *v.* reach, appear
eyskir *v.* be disinterested in
eyta *v.* take
eytej(a) ah *n.* life
eytofa *n.* forehead
eytoh *n.* tears
eywarsa *v.* be smooth
eywera *n.* older sibling of opposite sex
eywesa *n.* younger sibling of opposite sex

F

fanin *n.* bottle
fen *prep.* from
fercin *n.* spices

G

gam *n.* candy
gijga *adv.* only
god *n.* ditch
gug *prep.* to
guguy *adv.* all at once
gujga *adv.* beneath
gurá *adv.* negator
gusin *n.* key

H

had *prep.* toward
hadefa *quest.* where
hah *adv.* shortly
huna *adv.* camoflaged

I

i- *p/n.mkr.* 3PL pron. prefix
i- *mkr.* VISIBILITY marker
-i *mkr.* GIVEN, known
-i *att.mkr.* PROTEST marker
ibah *n.* sortal classifier:HUMAN
ida *quest.* who
igersa *n.* male fish
-ir *mkr.* PLURAL
isnok irgak *num.* forty
isnok irges *num.* twenty
itkitka *n.* rubber band

J

jef *adv.* DEON
jena *adv.* precisely
jender *n.* window (loan)
jera *prep.* with
jida *prep.* until
jig, met *prep.* LOC
jijema *adv.* concealed
jog *adv.* already
jug *prep.* against

K

-ka *deic.* near
kaju *n.* bean
karmom *n.* thick metal
kasina *n.* glass
kawar *n.* vehicle
-kef *deic.* here
kembis *n.* malaria
keradi *n.* work
kerenga *prep.* upon
kertas *n.(loan)* paper
kog *adv.* ahead
kokar *n.* crow
koram *num.* fifteen
koska *adv.* well

kua *n.* tea, infusion
kug *n.* tick
kuk *prep.* along
kus *n.* short span of time

M

m- *nr.* generic nominalizer
-ma *deic* far
mac *n.* thunder
macog *n.* gun
maekena *n.* garden
mafif *n.* wind
magamer *n.* griddle (metal)
maharga *n.* dry season
mahat *n.* tongs
mahga *n.* small roof pole
mahina *n.* husband
mahta *n.* shade
mahterew *n.* lattice
mahti *n.* legend
maken *n.* hook
mamga *n.* pestle
mamom *n.* overcast sky
manir *n.* leader
mar *n.* thing
mar-ahta *n.* ink
mar-ebah *n.* insects
mar-efena *n.* image, picture
mar-mosorna *n.* food
mar-ogá *n.* voice, message
mar-osum *n.* loaned thing
marefen *n.* grass
marefew *n.* plantlife
margeym *interj.* alright, OK
margir *n.* small parrot
markien *n.* k.o. small parrot
marog *n.* arrow
marotot *n.* goods
marowok *n.* vegetable
marsa *n.* game (animal)
mas *n.* rain
mas *n.* rain
masha *n.* k.o. bamboo
masik *n.* mosquite (small)
masina *n.* rainy season

masur *n.* sandfly
matah *n.* shade
maw *n.* sun
maw esir *n.* west
maw éysaha *n.* east
maw osha *n.* evening, sundown
maw tahaysa *n.* mid-day
maw teraw, maw okun *n.* north
maw tesi *n.* south
mayna *n.* loincloth
mebdah *n.* landslide
meber *n.* shelf
mebet *n.* squash
mebgif *n.* fan palm tree
mebka *n.* mango
mebris *n.* carpet of dried leaves
mebsta *n.* sand
mecif *n.* nettle
medef *n.* sago
medeg *n.* bamboo
medes *n.* barter child
medew *n.* sago pith, sago meal
medina *n.* grandparent/grandchild
meesa *n.* enemy
mef *n.* rack above fire
mef *n.* abandoned garden
mefera *n.* sores, wounds
mefjef, mebjef *n.* red biting ant
mefnef *n.* crow
mefsa *n.* salt
mefsta *n.* sand
meg *n.* raft
megesi *n.* leech
megigra *n.* pineapple
mej *n.* louse
-mej *deic.* remote
mejga *n.* fence
mejuen *n.* crocodile
mek *n.* pig
mek-kuda *n.* horse
mek-rusa *n.* deer
mek-sapi *n.* cow
mekek *n.* skin fungus
mekekew *n.* bamboo (large)
mekew *n.* father

meki *n.* tatoo
mekrew *n.* bamboo knife
mem *n.* bird
mem kokar *n.* chicken
mem mojuy *n.* cassowary
membef *n.* spinach
memega *n.* mountain
memes, meymec *n.* barkcloth skirt
memned *n.* cockatoo
memnes *n.* eagle
memsa *n.* k.o. bird of prey
men efenen *n.* dawn
men erir *n.* daylight
men es *n.* dawn
men esif *n.* daylight
menejog *n.* tomorrow
meni *n.* banana
mer *n.* room
mera *n.* bead
merah *n.* fire
merahaysa *n.* Christmas, year
meraj *n.* female toilet hole
mereda *n.* underbrush
meref *n.* vegetable greens
meregah *adv.* on the way, part way
merej *n.* avenger
merembrah, merem *n.* forest, jungle
meren *n.* lake
merenha *n.* storm
meresa *n.* sugarcane
meresa mos *n.* sugar
merga *n.* wood, tree
merga eferu *n.* board
merga ofoj *n.* splinter
mergej *n.* firewood
meri *n.* tree leaf (generic)
mersa *n.* floor
meru *n.* handle
mes *n.* dog
mes naw *n.* cat
mesemok *n.* water spirit
meserfa *n.* spoon
mesesba *n.* carving
mesew *n.* leaf container
mesi *n.* taro
mesiew *n.* comb

mesiga *n.* ladder
mesigebra *n.* bow
mesina *n.* stringbag
mesinom, mesnom *n.* corn
meska *n.* breadfruit tree
meskereg *n.* wild pandanus tree
meskid *n.* elephant grass
meskiomka *n.* scorpion
mesogun *n.* papaya
mesra *n.* walnut tree
mesrahu *n.* platform
mesta *n.* moon
mester *n.* plate
metebka *n.* cashew tree
meybaga *n.* sky
meyj *n.* louse
meyja *n.* table (loan)
mi- *p/n.mkr.* 1PL pron. prefix
mibca *n.* gourd
mida *quest.* what
midohes *n.* doorway
mif *pron.* 1PL personal
mifaha *pron.* 1PL reflexive
mifin *pron.* 1PL possessive
mimjah *n.* rainbow
mioda *n.* cuscus
mioha *n.* cinders
miohes *n.* trap, basket
miosinga *n.* ratan
mirges *n.* male sleeping area
mirok *n.* jungle
-mis *deic.* former
misamok *n.* cigarette
misi *n.* bandicoot
misirna *n.* illness
misiw *n.* rat
miskoh *n.* house underside
miteyja *n.* swamp
mitok *n.* small knife
mitos *n.* pot
mitow *n.* machete
mitowmat *n.* metal spear
miwera *n.* older sibling of opposite sex
miwesa *n.* younger sibling of opposite sex
miy *n.* water

miy *n.* cloth
miy ewet *n.* riverbank
Miyah *n.* Meyah people
miyec *n.* dugout
miyefen *n.* money
miyes *n.* clothes
miyet *n.* cloth, loincloth
mocga *n.* mortar
mocha *n.* k.o. tree
mocireg *n.* woven armband
mockej *n.* raincloud
mockur *n.* thick stick
mocmir *n.* earthquake
mocra *n.* hunger
mod *n.* house
mod mobga *n.* roof ridge
mod mejga *n.* animal pen
modeg *n.* yard
modenka *n.* citrus tree/fruit
modok *n.* mountainous area
modua *n.* k.o. tree (leaves for mats)
modwok *n.* jungle shelter
mofga, mofuga *n.* palm rib
mofmeg *n.* k.o. cloth
mofta *n.* sugar palm tree
mofuna *n.* vine
mofur *n.* ashes
moga *n.* wall
mogder *n.* parakeet
mogen *n.* parent-in-law, same sex
mogmeg *n.* sarong
mogom *n.* rock, stone
mogos *n.* snake
mogosga *n.* earthworm
mogug *n.* tinder
mogum *pron.* reciprocal
mohega *n.* k.o. tree
mohena *n.* wife
mohsa *n.* hole, man-made
mohtef *n.* mud
mohua *n.* wide cloth, blanket
mohun *n.* needle
mohus *n.* parrot
mohusor *n.* k.o. tree
moj *n.* shame
moj *n.* banyan tree

mojuy *n.* lowland
mok *n.* bowl
mok ebah *n.* tree spirit
mokaha *n.* housefly
mokera *n.* sibling same sex older
mokesa *n.* sibling same sex younger
mokesa *n.* string for loincloth
mokres *n.* guitar
moksirga *n.* flute
mokta *n.* pandanus
moku *n.* mushroom
momba *n.* bridge (makeshift)
momha *n.* insanity
mon *n.* corpse, ghost
mona, mena *n.* day
morag *n.* arrowhead, notched
morgik *n.* matoa tree
morhog *n.* decayed wood
morka *n.* cliff
moroj *n.* path, trail
mortoh *n.* island
moruj *n.* wasp
Morum *n.* Kebar (people)
mos *n.* outsider, foreign thing
mos *n.* fish
mosga *n.* hanging bridge
mosgur *n.* teacher
mosha *n.* k.o. tree
moshu *n.* frog
mosifef *n.* butterfly
mositua *n.* turtle
Moskona *n.* Moskona people
Mosmir *n.* Ayamaru people
mosnah *n.* evening star (planet)
mosom *n.* ax
mosorka *n.* toilet hole for women
mosorna *n.* hunger
mosta *n.* prey
mostebka *n.* beans
mosu *n.* mother (referential)
mosuesa *n.* mother's younger sister
mosuna *n.* porch (covered)
mosurda *n.* net for fishing
Mosursa *n.* Hatam people
mosusga *n.* k.o. small bamboo
mot *n.* night

motah *n.* morning
motga *n.* buttress root
motgonog *n.* darkness
motgus *n.* middle of night
mototos *n.* rust, corrosion
motur *n.* star
moturka *n.* bower bird
motus *n.* eastern cloth (high value)
mow *n.* land, place
mow-ewes *n.* hole
mow-ewet *n.* clay
mowah *n.* outside, forest
mowja, mowuj *n.* housepole
mowos *n.* village
muwga *n.* porch
muy *n.* sweet potato
muysa *n.* sibling-in-law opposite sex
muysa *n.* shaman

N

néeki *n.* yesterday
néesa *neg.* not yet
nefa *deic. w*hich
nesa *adv.* quickly
ni *prep.* for
ni *prep.* on, at
no- *nr.* deictic nominalizer
noga *rel.* relativizer
noka, nokef *deic.* this (one)
nom *adv.* truly, able to
noma *deic.* that (one)
nomis *deic.* former (one)

O

-o *att.mkr.* EMPHATIC marker
ob *v.* snap off
obada *v.* carry under arm
obder *v.* curse at
objefi *v.* malign
obra *v.* bark at (dog)
obra *v.* be slippery
obreker *v.* smooth
obrer *v.* be sunken, shriveled
obsa *v.* be exhausted

obsa, ofsa *v.* wipe off
obuda *v.* carry under arm
obuy *v.* beat s.t.
ociga *v.* affect accidently
ocko *v.* daily
ocohun *v.* enveloped
ocu-, oju-, c- *mkr.* ordinator prefix
ocuga *n.* fifth day from now
ocugrah *n.* fifth day ago
ocuja *n.* sixth day from now
ocuk *v.* block
ocukog *n.* firstborn child
ocuma *n.* fourth day from now
ocuna *n.* seventh day from now
ocunga *v.* snap in two
od *v.* bend double
od *v.* strike accidently
odgak *n.* torso
odoc *v.* meet
odocka *v.* reply
odog *v.* be pregnant
odog(eg) *n.* belly
odokun *v.* accompany
odow *v.* be disinclined
odra *v.* be dangling
odrurna *v.* unaware
odu *v.* tell
oduk *v.* order, command
odum *v* .pound
oduma *n.* hill (small)
oduy *n.* front
oduy *v.* crowded
of *v.* close
of *v.* blow
of *v.* fell (chop down)
of *v.* bite
of *v.* fly
ofa *pron.* 3SG personal (she/he)
ofej *pron.* s/he female
ofes *pron.* s/he male
ofaha *pron.* 3SG reflexive (himself)
ofahmej *interj.* its not important
ofca *v.* puff
ofda *v.* arrive
ofjig *v.* help
ofka *v.* pressure

ofod *n.* surplus
ofodreg *n.* framework
ofof *v.* run
ofof *n.* border
ofog *v.* accumulation
ofog *v.* be boiled
ofog *v.* pointed
ofoga *n.* flesh
ofogog *v.* be evil
ofogun *v.* be old, outdated
ofoj *v.* be blunted
ofoj *v.* be pre-set
ofoj *n.* end
ofojok *v.* be poor
ofokca *v.* be collected
ofom *n.* root, main/tap
ofom *v.* be ripe
ofombur *n.* lungs
ofomkuy *n.* center
ofomsa *v.* dark color
ofomsa *n.* energy, wage
ofon *pron.* 3SG possessive (his/hers/its)
ofon *n.* tooth
ofonga *n.* tendril
ofonon *v.* be huge
ofor *v.* be dehydrated
ofor *n.* substance
ofordor *n.* liver
oforga *v.* be hardened
oforna *n.* bone
oforoj *n.* trail (animal)
oforsa *v.* be charred
ofow *n.* beak
ofra *v.* lift
ofraha *v.* be green
ofres *v.* be simple
ofri *v.* be spicy
ofsa, obsa *v.* wipe off
ofta *v.* ingest
oftet *v.* be scenic
oftit *v.* teach
ofufom *v.* be hot (inanimate)
ofufun *v.* entwine
ofuga, ofga *n.* blood
ofum *v.* hurl
ofusi, osufi *v.* be light-weight

ofusum *v.* be thick
ofuy *n.* tradition
ofuy *n.* function
ofuy *n.* digit
ofuy *n.* egg
ofuyga *n.* upper extremity
og *v.* bend, remove by bending
og *v.* gouge
og *v.* smear
oga *n.* speech
ogda *v.* scoop (with hand)
ogder *v.* curse at
ogemiy *v.* drowned
ognunui *v.* be many
ogog *v.* visit
ogoh *n.* base, foundation
ogoj *n.* back of neck
ogok *v.* find
ogom *v.* decorate
ogor *v.* cry out (in pain)
ogorga *v.* be unobstructed
ogorna *v.* be thirsty
ogos *v.* die
ogow *v.* chop
ogrenin *v.* be stale
ogrer, ogrir *v.*   be thin, emaciated
ogreru *v.* striped
ogri *v.* be straight
ogu *v.* plop intermittently
oguga *v.* sacrifice
ogugar *v.* be cooled
ogugen *v.* pacify,
ogugur *v.* shudder
oguguy *v.* appease
oguma *v.* be compacted
ogun *v.* add on
oguna *v.* be ancestral
ogur *v.* cry out, scream
ogurá *neg.* no
oh *v.* emit
oh *v.* adhere to
oh *v.* sink in on
oha *v.* grate, grind, file
ohac *v.* spit out
ohan *v.* join (with)

ohas *v.* hop
ohduk *v.* check out, examine
ohes *v.* agitate
ohga *n.* forefront
ohka *n.* chin
ohma *v.*tear loose
ohma *v.* go hunting
ohobta *v.* stare
ohobta *v.* watch
ohoha *v.* be boiling
ohojoh *v.* ruin
ohor *v.* urinate
ohorka *v.* perfect
ohosha *v.* shake s.t.
ohosut *v.* listen
ohot *v.* say
ohra *v* splash, roil
ohrom *v.* be quick
ohsa *v.* emerge
ohsuda *v.* search for (unknown loc.)
ohta *v.* suck
ohur *v.* urinate
ohur *v.* be bare
ohur *v.* deceive
ohurka *v.* be perfect
oj *v.* descend into
oj miy *v.* drown
ojefeg *v.* confiscate
ojga *v.* originated
ojga *v.* graze, abrade
ojgun *v.* cough
ojium *v.* crowd
ojnif *v.* be (at) outer limit
ojok *v.* hit
ojuj *v.* trim (grass, brush)
ojuj *v.* hire, compensate
ojuy *v.* shove away
ok *v.* flee
ok *v.* bear
ok *v.* smoke (cigarettes)
ok *v.* snap off (with hands)
okecic *v.* point out
oked *n.* sole of foot
oked *v.* chant
okej *n.* beard
oker *v.* peel off

okes *v.* be whole
okeyja *v.* pour
oko *v.* puncture
oko *v.* thatch (roof)
oko mej *n.* calf
oko ona *n.* thigh
okockoda *v.* stumble
okog *v.* precede
okorek *v.* steal
okorek *v* be sunken in
okoska *v.* be well
okow *n.* debt
okow *n.* base, source
okowga *n.* leaf stem
okrok *v.* grate (sound)
oksa *v.* turn over s.t.
oksof *v.* replace
oksomus *v.* return
oksug *v.* finish off s.t.
okter *v.* encircle
oku *v.* burn
oku *v.* shoot (gun)
okua *n.* knee
okuc *v.* show
okucka *v.* be narrow
okui *v.* pull
okuj *v.* fetch (inan. obj.)
okuk *v.* hunt birds
okuk *v.* roll up
okuk *v.* be like
okum *v.* be heavy
okun *v.* be (out)side
okuru *n.* groin
okwef *v.* leak out
okwokwa *v.* flutter
om *v.* close over
om *v.* resemble
omda *v.* mate (of set)
om-ecicka *v.* suspend
omeda *v.* anticipate
omga *v.* be blurred
omga, omge miy *v.* submerge
omha *v.* snore
omka *v.* sleep deeply
omna *v.* lick
omna *n.* cheek

omnin *v.* aim at
omomka *n.* breast
omres *v.* be fragile
omrug *v.* swallow
omta *v.*be weary
omta *v.* be unripe
omta *v.* demand publicly
omuy *v.* resound
omuy *v.* be dull
onuy *n.* gums
or *v.* hold, handle, steer, touch
or *v.* ebb
or *v.* build
or *n.* poisonous plant
or- *num.cl.* class 7
orgebi *v.* be sunken (into s.t.)
orhusa *v.* drag s.t.
orj- *num.cl.* class 8
ork- *num.cl.* class 11
orka *v.* carry
orkesa *n.* joint
orkoh *v.* be hoarse
orkos *n.* neck front
orkut *v.* collect
orna *n.* man
orod *v.* meet accidently
orohuysa *v.* be sudden
orojuj *n.* right side
orokec *v.* large
oromna *v.* accompany
ororum *v.* be lost
orot *v.* go with
ors- *num.cl.* class 10
orsaha *quest.* how many
orsiki *v.* be dull
ort- *num.cl.* class 9
oruskej *v.* grasp
orusohta *v.* think
os *v.* move horizontally (over)
os *v.* rub, grate
os *v.* sever
osaha *v.* be lonely
osener *v.* disappear, vanish
osfa *v.* leap
osha *v.* be slackened
osioma *v.* play

oska *n.* crotch
oska ~ oski *v.* be acid, bitter
oskay(tok) *v.* be little (bit)
oski *v.* be salty
oskuj *n.* hindparts
oskuk *v.* be stiff
oskur *v.* be bad
osmos *v.* be strange
osnok *n.* person
osofsa *v.* hold on to s.t.
osoh *v.* compensate
osok *v.* climb up
osok *v.* begin
osok *v.* concern
ósoka *v.* descend
osomsa *v.* clutch
osoner *v.* be ceased
osorna *v.* be hungry
osorojga *n.* rib, fiancee
osoror *v.* be suspended
osot *v.* count
osotka *v.* marry (male term)
osra *v.* enter
osta *v.* thrust
osta *v.* chase
ostah *v.* deny
osuj *v.* be upon, be after
osum *n.* nose, face
osumiok *v.* whirl, twirl
osun *v.* erase
osunun *v.* reach limit
osusun *v,* gasp
osusuy *v.* be startled
osut *v.* imitate
osuy *v.* startle
osuy *n.* ear
ot *v.* stand
ot *v.* wash
otgonog *v.* be dark
otigej *v.* stand up
otka *v.* be tasty
otkera *n.* older sibling same sex
otkesa *n.* younger sibling same sex
otkona *n.* intestines
otkonoska *v.* be enraged

otoh *v.* be wide
otomta *v.* recognize
otra *v.* flip forward
otu *v.* be scarce
otuj *v.* follow
otumba *v.* be hollow
otusus *v.* go to and fro
otut *v.* laugh
otuy *v.* be tightly packed
ow *v.* fry
ow *v.* dig (hole)
ow *v.* link
owas *v.* be strong
owha *v.* leave
owi *v.* endeavor
owocka *n.* shoot of plant
owoh *v.* be webbed
owok *n.* bud
owoka *n.* name
owoka *n.* overflow
owoka *v.* forbidden
owos *n.* produce
owos *n.* skin
owos *n.* be bundled
owos *n.* sortal classifier:VEG
owosi *v.* be ordinary
owot *n.* secretion
owra *v.* cross through
oyfa *v.* be good
oyka *v.* dance
oykocka *v.* sneak
oyna *v.* cook
oynga *v.* fold
oyok *v.* swear
oyom *v.* request
oyorur *v.* yearn
oyra *v.* pass through
oyrega *n.* tail
oysa *v.* call out
oysa *v.* finished, used up
oysura *n.* youngest child
oytut *v.* quake s.t.

P

pacur *n. (loan)* hoe

paoga *n.(loan)* nail
pasa *n. (loan)* rice
pensir *n.(loan)* pencil

R

rad *num. (loan)* hundred
rahasis *adv.* whole day
rahu *adv.* long time
raok *adv.* usually
regreg *adv.* habitually
rejrej *prep.* around
rewrew *adv.* along the way
roga *adv.* first, before
rogrog *adv.* immediately
rohog *adv.* behind
rohroh *adv.* mixed in
rokrok *adv.* expectantly
romreg *adv.* entirely, all
ros *adv.* still
rot *prep.* about
rud *prep.* against
rud *adv.* ultimately
rudud *prep.* by
ruruy *adv.* unrestricted

S

sam (ofog) *n.* soap
sareg *n.* metal bracelet
se *adv.* certainly
sen *n.* zinc roofing
ses *adv.* accidently
setka *num.* ten
sidga *n.* upperside
siriaw *n.* beads
sis *adv.* past
siska *adv.* temporarily
skod *prep.* to (location of)
smen *adv.* perhaps
sof *prep.* instead
sohoha *adv.* unintentionally
sokomow *adv.* beginning
somus *adv.* back
sota *adv.* later (colloquial)
srad *n.* document
susuy *adj.* other kind

T

tahaysa *n.* middle
tahgur *num.* four
tas *adv.* more, again
tektek *adv.* incrementally
ten *prep.* for (benefit of)
teraw *adv.* above
terir *adv.* exactly
tesi *adv.* below
tima *n.* tin (metal)
tin *adv.* also
tiná *conj.* but
tínefa *quest.* how
tisef *n.* today
titir *adv.* constantly
toga *adv.* differently
tok *n.* spot, exact location
toktog *adv.* respective places
tomrer *adv.* openly, exposedly
tomror *adv.* intently
tum *prep.* onto
turur *adv.* connectedly
tusus *adv.* to and fro
tutum *adv.* often

U

u- *deic.* INVISIBILITY marker
uasir *n.* companions
ucur *v.* be quiet
ursa *n.* central location
uska *v.* be wild (not domesticated)

Y

y- *p/n.mkr.* DUAL pron. prefix
yam *n.* hour
yef *pron.* we (DU)
yefaha *pron.* 1DU reflexive
yefyen *pron.* 1DU possessive
yoga *pron.* 2DU personal
yogaha *pron.* 2DU reflexive
yogyen *pron.* 2DU possessive
yua *pron.* you (PL)
yuaha *pron.* 2PL reflexive
yuwun *pron.* 2PL possessive

English-Moskona wordlist

A
about rot
above teraw
accidently ses
accompany odokun, oromna
accumulation ofog
accustomed efena eker
ache efef
acid, bitter oska, oski
add on ogun
adhere to oh
adversarial oforna owas
advert daka
affect, befall ociga
again tas
against (nonspatial) jug
against (spatial) rud
agitate ahacic
agitate ohas
agree eskijig
ahead kog
aim at omnin
all at once guguy
allow esiwkjig
almost eke
along kuk
along the way rewrew
already jog
alright, OK margeym
also tin
ancestral oguna
and dokun
another time cergem
anticipate omeda
anxious oduy efi
appease ogugen
appendage etimeda
argue ejgefta
arise, get up eciga
arm etma
around rejrej
arrange efif

arrive ofda
arrow marog
arrowhead, notched morag
ashes mofur
ask (a question) esisga
associate ahra
avenger merej
awake efena ebra
ax mosom
Ayamaru people Mosmir

B
back somus
back up ecif
bad oskur
bamboo (generic) medeg
bamboo (k.o.large) mekekew
bamboo (k.o.small) mosusga
bamboo knife mekrew
banana meni
bandicoot misi
banyan tree moj
bare ohur
bark (at) obra
barter child medes
base, foundation ogoh
base, source okow
bathe ah-miy
bead (generic) mera
beads worn at waist siriaw
bean, peanut kaju
beans (green) mostebka
bear (carry) ok
beard ohka efej
beat (s.o.) obuy
beckon ebna
become ec
beg eti
begin osok
beginning sokomow
belly odog(eg)
below tesi
bend double od
bend to break og
beneath gujga

bird mem
birdshot ager
bit by bit tektek
bite (large animal) of
black ahta
block ocuk
block off eyahahir
blood ofuga, ofga
blow (wind) of
blue enira
blunted ofoj
blurred omga
body, trunk efega
boiled ofog
boiling ohoha
bone oforna
border ofof
both ergakek
bottle fanin
bow mesigebra
bower bird moturk
bowl mok
breadfruit tree meska
break off (with hands) ahinga
breast omomka
bridge (makeshift) momba
broken in two efrir
broken off ebsa
bud owok
build or
bundled owos
burn oku
but tiná
butt estak
butterfly mosifef
buttress root motga
buy ec
by rudud
by means of eresha

C

calf (leg) oko mej
call (out) ejeka
callous owos ewek
calm down ahin

camoflaged huna
candy, sweets gam
carry under arm obada
carry, bring orka
carved esesba
carving mesesba
cashew tree, fruit metebka
cassowary mem mojuy
cat mes naw
CAUSATIVE marker er-
cavity ewes
center ofomkuy
central location ursa
certainly se
chant oked
charred oforsa
chase osta
check out, examine ohduk
cheek omna
chicken mem kokar
child efer
child (small) eferiok
chin ohka
chisel eges
choose enu
chop ogow
Christmas, year merahaysa
cigarette misamok
cinders mioha
citrus modenka
classificatory sibling efedes
clay mow ewet
clear (sky) eskeyra
clear away (underbrush) ef
cliff morka
climb up osok
close off of
close over om
cloth miy
cloth, loincloth miyet
clothes miyes
cloud mockej
clutch osomsa
cockatoo memned
collect orkut
collected ofokca

collide eke
comb mesiew
come en
compacted oguma
companions uasir
compassionate oduy er
complete eber
concealed jijema
concern osok
confiscate ojefeg
connectedly turur
consider oduy orusohta
conscious efena erecef
constantly titir
contrastive specifier -em
contact efta
continuous esebra
cook oyna
cookhouse dawr
cooled (down) egiger, ogugar
corn mesinom
corpse, ghost mon
correct, real decir
cough ojgun
count osot
cracked in two ebka
craziness momha
crocodile mejuen
crooked engaw
cross ewer
crotch oska
crow mefnef
crowded oduy
crown, pinnacle ebrosursa
crunch ahra
cry ebisa
cry out (in pain) ogor
curse at obder, ogder
curious oduy eciga
curved esua
cuscus mioda
cuss out egebja
cutting (of a plant) ebes

D

daily ocko
damp etet
dance oyka
dangling odra
dark otgonog
dark color ofomsa
darkness motgonog
daughter efer ej
dawn men efenen, men es
day mona, mena
daylight men erir
daylight men esif
debt okow
decayed wood morhog
deceive ohur
decorate ogom
defecate ebi
definitely decirma
dehydrated ofor
delay efca
delicate, fragile egerag
demand publicly omta
dense (vegetation) efenda
deny ostah
descend ahaw
descend ósoka
descend into oj
desire oduy ek
die ogos
differently toga
dig ow
digit ofuy
dirty ahtuka
dish up ecka
disinclined odow
disinterested in eyskir
dismantle ahada
distant esen
distribute ef
ditch god
divide (up) ekej
dizzy ernof, ebir ernohuy
do en
document (letter) srad
dog mes

doorway midohes
drag s.t. orhusa
dream ahasha
dribble ewegweg
dried out efej
drop ecicka
drop by bits ecu
drop intermittently egu
drown oj-miy, ogemiy
drunk ebir ernof
dry aharga
dry season maharga
dry up eyma
dugout miyec
dull omuy
dull orsiki
DURATIVE aspect marker en-

E
each ergesis
eagle mem nes
ear osuy
earthquake mocmir
earthworm mogosga
east maw éysaha
eastern cloth (high value) motus
eat et
ebb or
egg ofuy
elbow etiw
elephant grass meskid
emerge ohsa
emit oh
empty, void ekir
encircle okter
end ofoj
endeavor owi
enduring aynun
enemy meesa
energy, wage ofomsa
enervated ednorur
enraged otkona oska, otkonoska
enter osra
entirely, all romreg
entwine ofufun

ENUMERATOR eke
enveloped ocohun
erase osun
etch ahah
evening star (planet) mosnah
evening, sundown maw osha
evil ofogog
exactly terir
exceed ekris
exchange edena
exclude esis
exclusive pronoun esisok
exhausted obsa
expectantly dekikir
expectantly rokrok
expectorate ahasigen
eye eteyja

F
fall (down) esir
fall over esim
fan palm tree mebgif
far (deictic) -ma
fat ewes
father (referential) mekew
father (vocative) ekok
fear emesa
feel chilled efifa, efirna
fell (chop down) of
female ej
female (fish) arja
fence mejga
fetch (inan. obj.) okuj
few ahabnina
fifteen koram
fifth day ago cugrah, ecug(rah
fifth day hence ocuga
find ogok
fingernail ecirfa
finish off s.t. oksug
finished, used up oysa
fire merah
firewood mergej
first roga
firstborn child ocukog

fish mos
five ciyja
fix, make eseki
flaming egirgir
flank efembra
flap efef
flat efna
flee ok
flesh ofoga
flicker ejuo
flicker, flutter, blink ebibra
flip forward otra
floor mersa
flow eya
flute moksirga
flutter okwokwa
fly of
foam efir
foam, bubble esirna
fold oynga
follow otuj
follow after eyet
food mar mosorna
foot oko
for ni
for (benefit of) ten
forefront ohga
forehead eytofa
forest merembrah, merem
forgetful oduy ogma
fork esta
former (deic.) -mis
former (deic.) nomis
forty isnok irgak
four tahgur
fourth day ago ocuna
fourth day hence ocuma
fragile omres
framework ofodreg
friend amoka
frog moshu
from fen
from (v.) efen
from, afterwards (v.) esha
front (torso) oduy

fry ow

G

gallbladder ewek
game (animal) marsa
garden maekena
garden (abandoned) mef
gasp osusun
gauge etejen
give up ahatu
GIVEN, known -i
glass (loan) kasina
globe (shaped) ebej
globe, bump ewek
glow ekena
go (to) eyja
go back, step back esisif
go hunting ohma
go to and fro otusus
go with orot
God Ara
good oyfa
goods, possessions marotot
gouge og
gourd mibca
grab esed
grandparent/grandchild medina
grasp oruskej
grass marefen
grate (sound) okra
grate, grind, file oha
graze, abrade ejga
green ofraha
greens, vegetable meref
griddle (metal) magamer
groin okuru
ground house mod miy
group, collection efca
grow er
growl (animal) ahahir
guess edif
guitar mokres
gums onuy
gun macog

H

habitually regreg
hack ah
hail, cry out egerna
hair efeja
half enam
handle meru
hang, sag er
hanging bridge mosga
hard ahaysa
hardened oforga
Hatam people mosursa
he of-es
head ebir
headman, leader ebireg
hear eg
heart efefej
heave ebjij
heavy okum
help ofjig
hence, so erogá
here (deictic) -kef
hide edem
hill (small) oduma
hindparts oskuj
hire, compensate ojuj
hit ojok
HITHER (deictic) en
hoarse orkoh
hoe pacur
hold on to s.t. osofsa
hold, handle, steer, touch or
hole mow ewes
hole (man-made) mohca
hollow otumba
hook maken
hop ohas
horn (animal) ebrot
hot (inanimate) ofufom
hot, warm (animate) efenen
hour yam
house mod
house underside miskoh
housefly mokaha
housepole mowja

how tínefa
how many orsaha
how many times cergaha
hub efca
huge ofonon
hundred rad
hunger mosorna
hungry osorna
hunt birds okuk
hurl ofum
hurt esis
husband (referential) mahina
husband (vocative) ethina

I

illness misirna
image mar efena
imitate osut
immature efeyu
immediately rogrog
in order to esha ni
inactive, invalid ahacum
incrementally dudu
infertile, sterile ebsita
ingest ofta
ink mar ahta
ingredient efed
inject ek
insects mar ebah
instance efef, efew
instead sof
INTENSIFIER suffix -aha
intently tomror
intestine efenok
intestines otkona
INVISIBILITY marker u-
invulnerable oforna ahaysa
IRREALIS marker em-
irritated, annoyed owos esis
island mortoh
itch, (be) irritated ahda

J

jaw eweken
join eda

join (bridge) etha
join with ohan
joint orkesa
joyful efagigow
jungle mirok
jungle shelter modwok

K

k.o. cloth mofmeg
k.o. tree mocha
Kebar (people) Morum
key gusin
kinship prefix 1SG ed-
kinship prefix 2SG eb-
kinship prefix 2SG/2DU ey-
knead ebda
knee okua
knife (small) mitok
know ejgen

L

ladder mesiga
lake meren
land, place mow
landslide mebdah
large orokec
later (colloquial) sota
lattice mahterew
laugh otut
leader manir
leaf efi
leaf contailer mesew
leaf stem okowga
leak out okwef
leap osfa
leave owha
leaves (dried) mebris
leech megesi
left side erga
leg egak
legend mahti
lethargic ahawah, oforna egerag
level edider
leveled efifra
lick omna

lie ah
life eytej(a) ah
lift ofra
light up enin
lightheaded ernohuy
light-weight ofusi, osufi
like okuk
link ow
liquid efi
liquified efi
listen ohosut
little oskay(tok)
live ebah
liver ofordor
LOC jig
local, originate from ojga
loincloth mayna
lonely osaha
long eges
long time rahu
look at eyeg
look for (known loc.) echa
loose ekrer
lost ororum
louse mej
louse meyj
love oduy efef
lower eyorga
lowland mojuy
lungs ofombur

M

machete mitow
make engit
malaria kembis
male (person) es
male fish igers
male sleeping area mirges
malign objefi
man orna
mango mebka
many edeses, eyenena, ognunui
many times cergergem
mark ereni
marry (female term) ah

marry (male term) osotka
match up, be possible edegejga, ocruk
matoa tree, fruit morgik
may deke
measure enin
medicinal treatment,drug ariawun
meet odoc
metal bracelet sareg
metal spear mitowmat
Meyah people Miyah
middle tahaysa
middle of night motgus
midst ewekesa
mismatch edis
mixed up rohroh
money miyefen
moon mesta
morning motah
mortar mocga
Moskona people Moskona
mosquite (small) masik
mother mosu
mother (vocative) ayok
mother's younger sister mosuesa
mountain memega
mountainous area modok
mouth ohac
move horizontally os
much etew
much more eseter
mud mohtef
multifircate esew
mushroom moku

N

nail paoga
name owoka
narrow okucka
nauseous oduy ebjij
navel, umbilical cord esuoja
near ef
neck (back of) ogoj
neck (front) orkos
needle mohun
negative adverb éra, gurá

NEG.DEON adverb edak
nervous efena egirgir
nest, pouch efem
net for fishing mosurda
nettleleaf mecif, mecu
new efena
newly efenin
next ejog
night mot
no ogurá
north maw teraw, maw okun
nose, face osum
not yet néesa
numeral classifier class 1 erg-
numeral classifier class 10 ors-
numeral classifier class 11 ork-
numeral classifier class 2 ed-
numeral classifier class 3 et-
numeral classifier class 4 er-
numeral classifier class 5 erf-
numeral classifier class 6 ers-
numeral classifier class 7 or-
numeral classifier class 8 orj-
numeral classifier class 9 ort-

O

often tutum
old, outdated ofogun
on the way, part way meregah
on, at ni
once, a moment cerges, ojuges
only, just gijga
onto tum
open ej
open (up) esif, esu
open, reveal esua
openly, exposedly tomrer
order, command oduk
ordinary owosi
ordinator prefix ocu-, oju-, c-
originate ojga
other kind susuy
outer limit ojnif
outside, forest mowah
outsider, foreign mos

overcast sky mamom

P

pacify oguguy
palm rib mofga, mofuga
pandanus mokta
pant oduy efena
pants miy egak
papaya mesogun
paper (loan) kertas
parakeet mogder
parent-in-law, same sex mogen
parrot mohus
parrot (k.o. small) markien
parrot (k.o. small) margir
pass eser
pass through owra, oyra
past sis
path, trail moroj
patterned, designed efeyu
pay eyha
peel in strips eru
peel off oker
penis eci
perfect ohurka
perhaps smen
person osnok
personal pronoun 1DU yef
personal pronoun 1PL mif
personal pronoun 1SG dif
personal pronoun 2DU yoga
personal pronoun 2PL yua
personal pronoun 2SG bua
personal pronoun 3DU ergog
personal pronoun 3PL eri
personal pronoun 3SG ofa
pestle mamga
pig mek
pilfer etitna
pineapple megigra
pinworms modockor
place departed from rohog
plant matter/ plantlife efeyu
plantlife marefew
plate mester

platform mesrahu
play ahisen, osioma
pleased oduy oyfa
plop ogu
point out okecic
pointed ofog
poison emka
poisonous plant or
poke, touch eseka
POLAR QUESTION marker -ey
poor ofojok
porch muwga
possessive pron. 1DU yefyen
possessive pron. 1PL mifin
possessive pron. 1SG dadin
possessive pron. 2DU yogyen
possessive pron. 2PL yuyun
possessive pron. 2SG buwun
possessive pron. 3DU ergen
possessive pron. 3PL erin
possessive pron. 3SG ofon
pot mitos
pour okeyj
precede okog
precisely jena
prefer esenek
pregnant odog
prepare esejah
pre-set, pre-appointed ofoj
press (on), set es
press down ebdin
pressure ofka
prey mosta
price efer
prick eset
probably eri
produce owos
promise egen
pronominal prefix 1PL mi-
pronominal prefix 1SG di-
pronominal prefix 2PL yi-
pronominal prefix 2SG bi-
pronominal prefix 3PL i-
pronominal prefix DU y-
PROTEST marker -i

proud oduy aksa
prove, give evidence eweswa
puff ofca
pull okui
puncture oko
push against edi
put esah

Q

quake oytut
QUANTITY marker -aha
quick ohrom
quickly nesa
quiet ucur
quieted ejgega

R

rack above fire mef
raft meg
rain mas
rainbow mimjah
rainy season masina
raise animals efa
rat misiw
ratan miosinga
raw ebah
reach limit osunun
reach, appear éysaha
ready to eat efieyja
recently ebi
RECIPROCAL marker em- -ima
reciprocal pronoun mogum
recognize otomta
red ekena
red biting ant mefjef, mebjef
refuse eba
relatives ebskir
relativizer noga
release edeska
remote (deic) -mej
remove edega
replace oksof
reply odocka
request oyom
resemble om

resound omuy
respective places toktog
restricted ekenga
return oksomus
reverse s.t. osoh
revulsion owos ogugar
rib osorojga
rice pasa
right side orojuj
ripe ofom
ripe tuber efema
rock, stone mogom
roll up okuk
roof pole mahga
room mer
root (fiber) efemja
root (main) ofom
rotten emba
rub, grate os
rubber band itkitka
ruin ohojoh
run ofof
rust, corrosion mototos

S

sacrifice oguga
sago medef
sago pith, sago meal medew
salt mefsa
salty oski
same location as dec
same time meteririm
sand mebsta, mefsta
sandfly masur
sarong mogmeg
satiated ecka
say ohot
scarce otu
scenic oftet
scoop (with hand) ogda
scoop, dip out ege
scorpion meskiomka
scrape ahka
search for (known loc.) ecka
search for (unknown loc.) ohsuda

second day ago ecki
secretion owot
see ek
segment eferu
semi-solid ewet
set afire ed
seventh day from now ocuna
sever os
several ergegaha
shade matah
shake s.t. ohosha
shame moj
sharp efi
shave er
she of-ej
sheath efef, efem
shelf meber
shine eysa
shocked owos osuy
shoot (gun) oku
shoot of plant owocka
shoot, spear ef
short etkebra
short intervals etu
short span of time kus
short-bodied estamug
shortly hah
should, ought (DEON) jef
shoulder eksa
shout oysa
shove away ojuy
show okuc
shudder ogugur
sibling 1SG.op.sex.older eduera
sibling 1SG.op.sex.younger eduesa
sibling same sex older otkera
sibling same sex younger otkesa
sibling.op.s.old. eywera, miwera
sibling.op.s.yg eywesa, miwesa
sibling-in-law (1SG.op.sex) eduisa
sibling-in-law opposite sex muysa
sibling-in-law same sex efina
sick esirna
side, outside okun
silent amsa

simple ofres
singed, scorched efet
sink in oh
sit eker
six ciyja erges
sixth day hence ocuja
skin owos
skin fungus mekek
skirt (barkcloth) memes, meymec
skull ebirorha
sky meybaga
slackened osha
sleep deeply omka
slender efenga
slice ersa
slippery obra
slit open egeja
slowly deci
smart ewek ahra
smear og
smoke merah ofoga
smoke (cigarettes) ok
smooth eywarsa
smooth out obreker
snake mogosa
snap in two ocunga
snap off ob
snap off (with hands) ok
sneak oykocka
sniff emsa
snore omha
soap sam(ofog)
sole of foot oked
some other enia
son efer es
song aroga, yaroga
sore, wound efer
sores, wounds mefera
sortal classifier:ANIMAL efega
sortal classifier:FLAT efi
sortal classifier:HUMAN ibah
sortal classifier:SOFT ewet
sortal classifier:STONE ebej
sortal classifier:VEG owos
south maw tesi

speech oga
spices fercin
spicy ofri
spill out ejerfa
spinach membef
spine ejmeg
spirit, image efena
splash, roil ohra
split ebri
split s.t. etka
spoon meserfa
spot, exact location tok
spray es
spread ebra
spread to efdec
sprinkle eska
squash mebet
squeeze egedid
stale ogrenin
stalk eju
stand ot
stand up otigej
star (small) motur
stare ohobta
startle osuy
startled osusuy, oduy efena ebker
steal okorek
stick to eyet
stick (thick) mockur
stiff oskuk
still ros
sting eska
stink embisif
stir er
stir er
storm merenha
straight ogri
strange osmos
strike accidently od
strike, throw with force ed
string for loincloth mokesa
stringbag mesina
striped ogreru
strong owas
stubborn ebekerk, ebrekirk
stubby etu

study (loan) ebeskor
stumble okockoda
submerge omga, omge miy
subside, ebb eyma
substance ofor
suck esta
suck ohta
sudden orohuysa
suffer (pain) eti
suffer, feel pain eti
sugar palm tree mofta
sugarcane meres
sun maw
Sunday mona ari
sunken (into s.t.) orgebi
sunken in okorek
sunken, shriveled obrer
support et
surplus ofod
surprised esia
surround eregejga
suspend om-ecicka
suspended osoror
swab efet
swallow omrug
swamp miteyja
sway eynegneg
swear oyok
sweet potato muy
swell esejga

T
table meyja
tail oyrega
take eyta
take by force esma
take hostage ejij
talk about esij
tall aksa
taro mesi
taste acid esgenga
tasty otka
tatoo meki
tea, infusion kua
teach oftit

teacher mosgur
tear (apart) ekinga
tear loose ohma
tears eytoh
tell odu
temporarily siska
ten setka
tendril ofonga
terrified oduy efena orosusun
thanks, gratitude estom
that (one) noma
thatch (roof) oko
THEMATIC marker erá

then edá

therefore esha edá
they (PL) males eris
they (PL) females erija
thick ofusum
thick metal (loan) karmom
thickened, rounded ewek
thigh oko ona
thin ahabnuk
thin, emaciated ogrer, ogrir
thing mar
think orusohta
third day ago cumjog
third day hence eckajog
thirsty ogorna
this (one) noka, nokef
three days ago cumjog
three days ago cumjog
thrice cergom
throb era
throw away eyjgej
thrust in osta
thunder mac
tick kug
tie ahac
tightly packed otuy
tin tima
tinder mogug
to (location of s.o.) skod
to (s.o.) gug
to and fro tusus
today tisef

toilet hole (in floor) mosorka
tomorrow menejog
tongs mahat
tooth ofon
torn ebga
torso odgak
toss eyj
toward had
trade (s.t.) ega
trade a child eduec
tradition ofuy
trail (animal) oforoj
trap, basket miohes
tree leaf (generic) meri
tree spirit mok ebah
trim etit
trim (grass, brush) ojuj
truly, able to nom
turn away from, avoid eki
turn over s.t. oksa
turtle mositua
twenty isnok irges
twice cergak, ojugak
twist ejij

U
ultimately rud
unaware odrurna
underbrush mereda
understand oduy ebri
unintentionally sohoha
unobstructed ogorga
unrestricted ruruy
unripe omta
unsure oduy ergak
until jida
upon kerenga
upon, after osuj
upper extremity ofuyga
upperside sidga
urinate ohor
urinate ohur
used, former efi
usually raok

V

vanish osener
vegetable marowok
vehicle kawar (loan)
verbalizer prefix ebe-
vibrate, shimmer eyrir, ebrir
vigorously dakin
village mowos
vine mofuna
VISIBILITY marker i-
visible edma
voice mar ogá
vomit ahamow

W

walk, travel ecira
wall moga
walnut tree mesra
want oduy os
warn ecu
wash ot
wasp moruj
watch ohobta
water miy
water spirit mesemok
wear s.t. erga
weary omta
weave bamboo eki
weave, braid ey
webbed owoh
week ari
weigh ewen
weigh down ekewen
well koska
well okoska
west maw esir
wet etefa
what mida
when echa
where hadefa
which nefa
whirl osumiok
whirl around osumiok

white, clean, blank efsa
whittle efa
who ida
whole okes
whole day rahasis
wide otoh
wide cloth, blanket mohua
wife mohena
wife (vocative) ethona
wild (not domesticated) uska
wild pandanus tree meskereg
wind mafif
wind around ef
window jender (loan)
wipe off obsa, ofsa
with jera
withhold ahusta
woman ejena
wood, tree merga
work keradi (loan)
woven armband mocireg
wrap up eba

Y

yank, jerk on ebaha
yard modeg
yearn oyorur
yell etaha
yellow erik, erirka
yesterday neeki
young man erewesha, es efer
young woman ej efer, ejewjena
youngest child oysura

Z

zinc roofing sen

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Index

Summary

A grammar of Moskona: An East Bird's Head language of Papua, Indonesia

This book presents a linguistic study of the Moskona language, a Papuan language spoken in the province of West Papua, Indonesia, located in the interior of the eastern Bird's Head on the island of New Guinea.

Chapter one presents a general overview of the people, language and the area, describing the geography, demography, cultural and sociopolitical situations, as well as world view and traditional beliefs of the Moskona. The Moskona language is a member of the East Bird's Head Family. There are two dialects. The linguistic features distinguishing the dialects are primarily phonological and phonotactic.

Chapter two describes the major features of the phonology system, including consonant and vowel phonemes with their phonetic variations, syllable structures, pitch accent system, reduplication, and morphophonemic processes. A prominent feature of the phonology is the asymmetry in the stop phonemes, due to the distinctive absence of a voiceless bilabial plosive. The morphophonemic processes involve assimilation, coalescence and elision.

Chapter three provides a discussion of the major word classes, nouns and verbs. The noun subclasses include common nouns, proper nouns, alienable nouns, inalienable nouns and nouns which refer to humans. There is an overlapping of noun subclasses due to shared properties. A discussion of noun compounds, which are very productive, is also provided. The verb subclasses are transitive, ambitransitive and intransitive, with adjectives and indefinite quantifiers being members of the subclass of intransitive verbs. Seven categories of affixation are marked on the verb root, five of which are inflectional and two are derivational.

Chapter four presents the minor word classes adverbs (and adverbials), numerals and numeral classifiers, sortal noun classifiers, prepositions, question words and conjunctions. The classifier-numeral constructions may function as specifiers to indicate indefinite reference for new information.

Chapter five discusses deixis with a presentation of personal deixis (including personal pronouns, possessive pronouns, reflexive pronouns, exclusive pronouns and pronominal prefixes), spatial deixis (distinguishing four parameters, distal, elevational, directional and visible), and textual deixis (distinguishing three degrees of distance, with markers for focus and known information). Mention is made of the extension of the spatial dimension to temporal deixis.

Chapter six describes the noun phrase, covering noun phrase structure and the elements which may serve as head or as modifiers in a noun phrase. Coordinate and appositional noun phrase structures are also discussed.

Chapter seven provides a listing of the numerous prepositions found in Moskona and the semantic roles indicated by them. Prepositions may be classified as spatial, indicating direction or location, or non-spatial. Non-spatial prepositions may have multiple senses, which may be translated differently depending on the context.

Chapter eight presents the two clause types, verbal and nonverbal clauses. The clause has a frame or topic position which occurs preceding the clause core. Simple verbal clauses have an SVO order. Predicative possession is included as possessive pronouns may function as possessor verbs. Classificatory verbs which are used for expression of existence are also discussed. Non-verbal clauses may have nominals, demonstratives or adverbs as predicates.

Chapter nine deals with complex predicates which include serial verb constructions and emotional-state constructions (body-part noun plus verb constructions). The serial verb construction types found in Moskona are simultaneous, motion, cause-effect, aspectual, instrument and ambient. Verbal prepositions are found in constructions similar to SVCs but these constructions do not share all of the features which characterize SVCs.

Chapter ten presents relative clauses and complement clauses. Relative clauses may have a relativized subject, object, peripheral argument, genitive or instrument. Complement clauses may be finite or paratactic. A discussion of their syntactic properties is provided.

Chapter eleven discusses clause combining. These complex constructions involve more than one clause, and are typically linked by a clause-linker. There are two types of subordinate clauses, temporal and location clauses, which have a structure parallel to relative clauses. Other subordinate clauses are linked by prepositions and verbal prepositions. Coordinate clauses are linked by conjunctions. Complex linking phrases may introduce sentences to provide continuity within a paragraph.

Chapter twelve presents the speech acts. These are the interrogatives (polar and information questions) and the imperatives (simple imperative and mitigated imperatives). Also discussed are the reprimand rhetorical questions and the indirect questions. Two attitude markers (protesting and emphatic) indicate the speaker's point of view. A discussion of negation, its clausal position and its scope is provided.

Samenvatting

Een grammatica van Moskona: een taal uit de oostelijke Vogelkop van Papoea, Indonesië
Dit boek presenteert een taalkundige studie van de Moskonataal, een Papoeataal die gesproken wordt in de provincie West Papoea, Indonesië, in het binnenland van de oostelijke Vogelkop op het eiland Nieuw Guinea.

Hoofdstuk één geeft een algemeen overzicht van de mensen, de taal en het gebied. Het beschrijft de geografie, de demografie, de culturele en sociopolitieke situatie en ook het wereldbeeld en de traditionele geloofsopvattingen van de Moskona. De Moskonataal is een lid van de oostelijke Vogelkopfamilie. Er zijn twee dialecten. De taalkundige kenmerken die deze dialecten van elkaar onderscheiden zijn voornamelijk fonologisch en fonotactisch van aard.

Hoofdstuk twee beschrijft de belangrijkste kenmerken van het fonologisch systeem, waaronder medeklinkers en klinkers met hun fonetische variaties, de structuur van lettergrepen, het systeem van *pitch accent*, reduplicatie en morfofonemische processen. Een opvallend kenmerk van de fonologie is de asymmetrie in de fonemen voor *stops* (plofklanken), die wordt veroorzaakt door de opvallende afwezigheid van een stemloze bilabiale plofklank. De morfofonemische processen omvatten assimilatie, samensmelting (*coalescence*) en elisie.

Hoofdstuk drie levert een discussie over de belangrijkste woordklassen – zelfstandige naamwoorden en werkwoorden. Subklassen van het zelfstandig naamwoord zijn o.a. *proper nouns*, *common nouns*, vervreemdbare en onvervreemdbare naamwoorden, en naamwoorden die naar mensen verwijzen.

Vanwege gemeenschappelijke kenmerken is er overlap tussen deze subklassen.
Ook wordt een discussie geleverd van samenstellingen – een zeer productief proces.
Subklassen binnen het werkwoord zijn transitief (overgankelijk), ambitransitief (dubbelovergankelijk) en intransitief (onovergankelijk). Bijvoeglijke naamwoorden en indefiniete *quantifiers* maken deel uit van de subklasse van intransitieve werkwoorden. Zeven soorten affixen verschijnen op de werkwoordsstam; vijf daarvan zijn inflectioneel (vervoegingen en verbuigingen) en twee zijn derivationeel (afleidingen).

Hoofdstuk vier presenteert de kleinere woordklassen van de adverbia (bijwoorden) en adverbialen, telwoorden en *numeral classifiers*, *sortal noun classifiers*, voorzetsels, vraagwoorden en voegwoorden. Constructies met een *classifier* en een telwoord kunnen functioneren als *specifiers* om indefiniete verwijzingen naar nieuwe informatie te markeren.

Hoofdstuk vijf bespreekt deixis met een presentatie van persoonsdeixis (o.a. persoonlijke voornaamwoorden, bezittelijke voornaamwoorden, wederkerige voornaamwoorden, *exclusieve* voornaamwoorden en pronominale voorvoegsels), ruimtelijke deixis (met daarin vier parameters: afstand, hoogte, richting en zichtbaarheid) en textdeixis (met

daarin drie graden van afstand, alsmede markeringen voor focus en bekende informatie). Er wordt ook melding gemaakt van de uitbreiding van de ruimtelijke dimensie tot temporele deixis.

Hoofdstuk zes beschrijft de zelfstandige naamwoordgroep (*noun phrase*). Behandeld worden de structuur van de naamwoordgroep en de elementen die daarin als hoofd of als bepaling kunnen fungeren. Tevens worden gecoördineerde en appositionele structuren van naamwoordgroepen besproken.

Hoofdstuk zeven geeft een lijst van de talloze voorzetsels die in het Moskona voorkomen en de semantische rollen die zij weergeven. Voorzetsels kunnen worden geclassificeerd als ruimtelijk - richting of plaats aanduidend - of als niet-ruimtelijk. Niet-ruimtelijke voorzetsels kunnen meerdere betekenissen hebben, die op verschillende manieren vertaald kunnen worden, afhankelijk van de context.

Hoofdstuk acht presenteert de twee zinstypes: verbaal (werkwoordelijk) en niet-verbaal. Een zin heeft een *frame* of topicpositie die aan de kern van de zin voorafgaat. Eenvoudige werkwoordelijke zinnen hebben de woordvolgorde SVO. Bezitspredicaten vallen hier ook onder, aangezien bezittelijke voornaamwoorden als bezitswerkwoorden kunnen functioneren. Classificerende werkwoorden die worden gebruikt voor het uitdrukken van bestaan worden ook besproken. In niet-verbale zinnen bestaat het predikaat uit een naamwoord, een aanwijzende voornaamwoord of een bijwoord.

Hoofdstuk negen houdt zich bezig met complexe predikaten zoals *serial verb* constructies en *emotional-state* constructies (constructies van een zelfstandig naamwoord dat verwijst naar een lichaamsdeel plus een werkwoord). In Moskona worden de volgende *serial verb* constructies gevonden: gelijktijdig, beweging, oorzaak-gevolg, aspecteel, instrument en *ambient*. Werkwoordelijke voorzetsels worden aangetroffen in constructies die op *serial verb* constructies lijken, hoewel deze constructies niet alle kenmerken vertonen die typerend zijn voor *serial verb* constructies.

Hoofdstuk tien presenteert relatieve bijzinnen en *complement* zinnen. Relatieve bijzinnen kunnen een gerelativiseerd onderwerp, lijdend voorwerp, perifeer argument, genitief of instrument hebben. *Complement* zinnen kunnen finiet of paratactisch zijn. De syntactische eigenschappen van deze zinnen worden ook behandeld.

Hoofdstuk elf bespreekt het samenvoegen van zinnen. Deze complexe constructies omvatten meer dan één zin, en worden meestal verbonden door een *clause-linker*. Er zijn twee soorten ondergeschikte zinnen: temporele zinnen en locatieve zinnen, die een structuur als die van relatieve bijzinnen hebben. Andere ondergeschikte zinnen worden verbonden via voorzetsels en werkwoordelijke voorzetsels. Nevengeschikte zinnen worden aan elkaar verbonden door middel van voegwoorden. Zinnen kunnen worden geïntroduceerd door complexe verbindende zinsdelen (*phrases*) om zo continuïteit binnen een alinea te geven.

Hoofdstuk twaalf presenteert de *speech acts*. Dit zijn de vraagzinnen (zowel ja-nee vragen als informatievragen) en de gebiedende zinnen (zowel eenvoudig als verzacht). Hier worden ook rhetorische-vragen-als-uitbrander en indirecte vragen besproken. Twee houding-markeerders (protest en nadruk) geven het standpunt van de spreker weer. Een discussie van ontkenning wordt ook gegeven, met de positie daarvan in de zin en het bereik ervan.