

MAI BRAT NOMINAL PHRASES

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This paper analyzes the various nominal phrases found in Mai Brat beginning with basic noun phrases and their constituents. New nominal phrase constituents are then documented as needed to describe the structure of other nominal phrases. Finally, an analysis of the Mai Brat twenty number system is presented. Examples from natural Mai Brat texts are used to illustrate each point throughout the paper.

1 INTRODUCTION

This paper is a tentative description of the nominal phrases and their constituents which occur in Mai Brat, a Papuan language in the West Papuan Phylum and Central Bird's Head Family. Ayamaru and Brat are other names commonly used for this language (Grimes 1948:398). This paper focuses on the dialect of Mai Brat spoken in the village of Kambuaya, sub-district of Ayamaru, district of Sorong, province of Irian Jaya, Indonesia.

Voorhoeve (1975) has described Mai Brat as having nine dialects. Currently there are approximately 22,000 speakers, about 18,000 of which live around the Ayamaru Lakes. Many other Mai Brat speakers now reside in the urban areas of Sorong, Teminabuan, Manokwari, and Jayapura. At the present time we are able to distinguish four dialects of Mai Brat, generally determined by the sub-district boundaries of Ayamaru, Aitinyo, Aifat, and Mare, though this classification is by no means definitive.

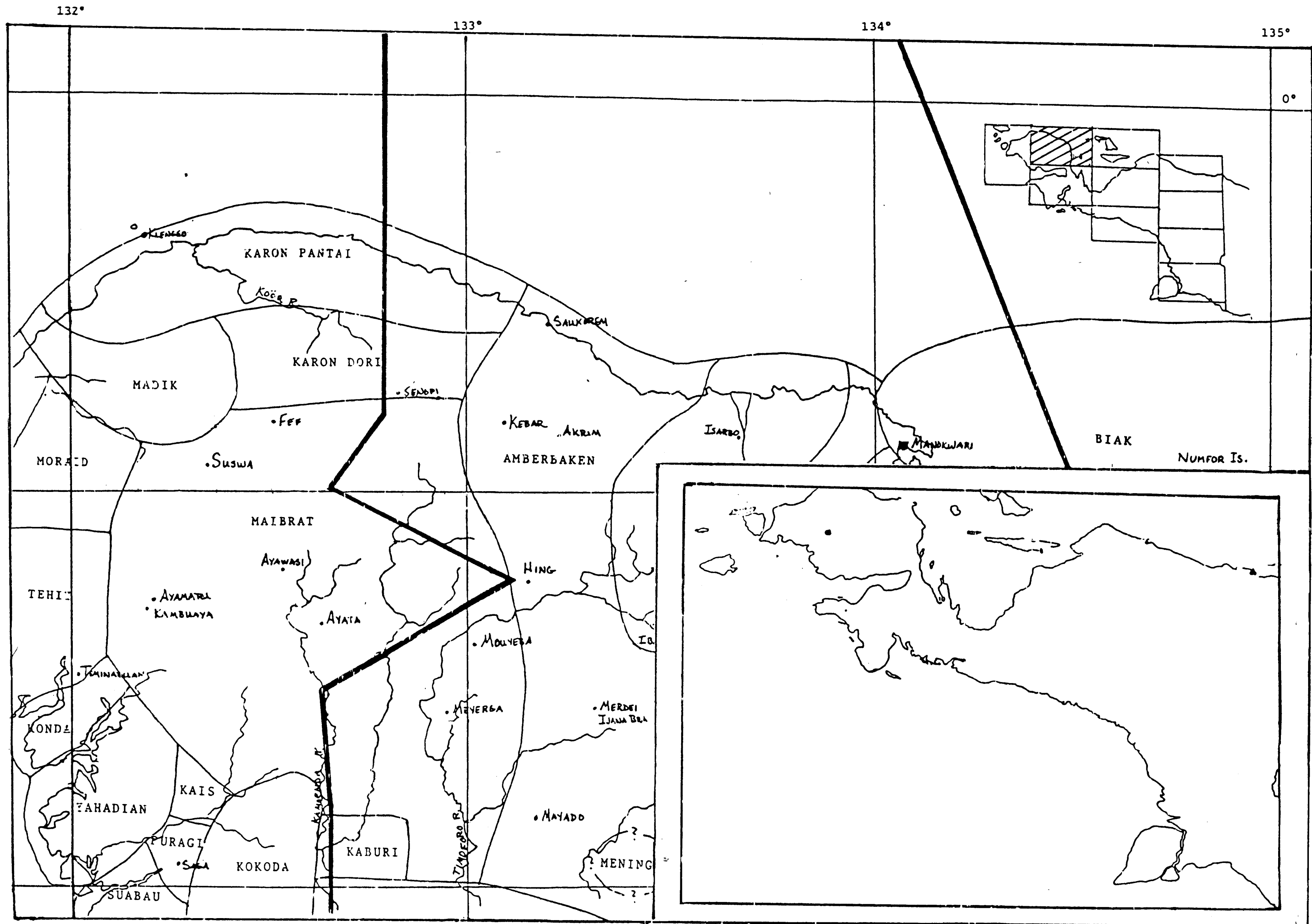
The analysis is based on over 50,000 words of oral and written Mai Brat text. Narrative, expository and hortatory texts from 54 Mai Brat speakers were included. The tagmemic model was used in this analysis as presented in Peck (1984).

2 NOMINAL PHRASES

Nominal phrases in Mai Brat are those phrases which may fill subject or object tagmemes in Mai Brat clauses. These include various noun phrases, name phrases, pronoun phrases and kinship phrases.

2.1 BASIC NOUN PHRASES

The basic noun phrase in Mai Brat consists of a noun head followed by a maximum of three out of eight possible additional tagmemes. The most common forms have only one or no additional tagmemes. The following noun phrases illustrate the tagmemes which may follow the noun head:



Maibrat (Irian Jaya)

1. **Finya ro kabes fane mesait** mamō kar.
 woman who spirit pig 3sgfem-herself 3sgfem-go alone

'A woman herself who is possessed by a pig spirit walks alone.'

In example 1, the noun head **finya** 'woman' is followed by a relativizer **ro kabes fane** 'who is possessed by a pig spirit' and an emphatic **mesait** 'herself'. The relativizer, which is always a relative clause, most commonly begins with the relative pronoun **ro** 'who/which'. The rest of the relative clause in this case is an attributive noun phrase. Mai Brat relative clauses may have many forms filling a variety of different functions. While noting their occurrence in noun phrases, a complete discussion of the structure of Mai Brat relative clauses is beyond the scope of this paper.

The second tagmeme following the noun head is an emphatic. Emphatics in Mai Brat are emphatic pronouns which agree with the head in person, number and gender. Parallel declensions of emphatic pronouns, a typical adjective and a typical declinable noun (only kinship terms and body parts are marked indicating the obligatory possessor) are given in table 1.

Declension	Prefix	Emphatic pronouns	Adjectives 'old'	Declinable nouns 'father'
1sg*	ta-	tesait	tabi	taja
1plin	b-	bsait	bbi	bja
1plex	n-	nsait	nbi	nja
2sg	na-	nesait	nabi	naja
2pl	n-	nsait	nbi	nja
3sgmasc	ya-	yesait	yabi	yaja
3sgfem	ma-	mesait	mabi	maja
3pl	ma-	mesait	mabi	maja

Table 1. Emphatic pronouns, adjectives, and nouns in Mai Brat

In example 1, the noun head **finya** 'woman' is not declinable but is intrinsically feminine. Number is not explicitly present in the clause and could be either singular 'woman' or plural 'women'. As is frequently the case in Mai Brat, number may only be determined by the greater semantic context. For the sake of this example, the number is assumed to be singular. The person of **finya** 'woman' is third person. From the table above, the emphatic **mesait** may also be third person, singular in number and feminine in gender. Thus the noun head and the emphatic pronouns agree in person, number and gender.

2. **Raa ro rabin ramu** refo mawe, "..."
 people who area POSSsg-we(ex) this 3pl-say "..."

'People who live in this area of ours say, "...'"

The second example shows two noun phrases, one being nested within the other as part of the relative clause. Focusing on the inner noun phrase **rabin ramu refo** 'this area of ours' two new tagmemes are shown, namely possessives filled by a possessive pronoun **ramu** 'our' and deictics filled by a demonstrative pronoun **refo** 'this'. The noun head in this example is **rabin** 'area'. Deictics agree in number and gender with the noun head. Table 2 displays the demonstrative pronouns found in Mai Brat and the specifying articles which will be addressed later in this section.

	Demonstrative pronouns		Specifying articles
	singular	plural	
Femi- nine	refo 'this'	wefo 'these'	fo (near)
	reto 'that'	weto 'those'	to (not too far)
	reno 'that'	weno 'those'	no (far)
.....			
Mas- culine	refi 'this'	----	fi (near)
	reteit 'that'	----	teit (not too far)

Table 2. Mai Brat demonstrative pronouns and specifying articles

From the table above the demonstrative pronoun **refo** 'this' is singular and feminine. This agrees with the gender and number of the noun head **rabin** 'area'. In Mai Brat, the concept of masculine is limited to male humans and some male animals, everything else is considered feminine. Possessive pronouns are marked for person, number and gender of the possessing referent and also for the number of the possessed noun head. Morphologically, this is accomplished by adding number prefixes to personal pronouns. The number prefix indicates the number of the possessed noun head. This is illustrated in table 3 below.

Declension	Free pronouns	Possessive pronoun	
		Number of noun head singular	plural
1sg	jo	ajo	wojo
1plin	anu	ranu	wanu
1plex	amu	ramu	wamu
2sg	nyo	anyo	wonyo
2pl	anu	ranu	wanu
3sgmasc	ait	rait	wait
3sgfem	au	rau	wau
3pl	ana	rana	wana

Table 3. Possessive pronouns in Mai Brat

Looking again at example 2 in light of table 3, it is clear that the possessive pronoun **ramu** 'our' agrees in the number marked for the possessed referent (singular) with the noun head **rabin** 'area'. This agreement is required whenever a possessive pronoun is present.

3. **Raa yabi sait yamiot tohmi.**
man 3sgmasc-old masc one 3sgmasc-teach initiation rites
'One elderly man taught initiation rites.'

The noun phrase above **raa yabi sait** 'one elderly man' illustrates two more noun phrase tagmemes, modifiers and quantifiers. Modifiers are adjective phrases which agree with the noun head in person, number and gender. In the example, the adjective **yabi** 'old' is third person, singular in number and masculine in gender (see table 1). This agrees with the noun head **raa** 'man'. Quantifiers are number phrases which agree in number and gender with the noun head. The concept of number is intrinsic to number phrases with the number 'one' being singular and all other numbers being

plural. The number for one is inflected for gender. The masculine form is **sait** 'one' and the feminine form is **sau** 'one'. The quantitizer in the above example, **sait** 'one' is then singular in number and masculine in gender which agrees with the head **raa** 'man'.

4. **Mfot besik sau aran.**
 3pl-catch catfish one only
 'They caught only one catfish.'

The limiter **aran** 'only' is present in example 4. Limiters in Mai Brat function to emphasize the number of the head noun, especially the fact that the number was not exceeded. The fact that 'only one' catfish was caught in the above example became the cause of a fight later in the narrative. Limiters are not inflected for person, number or gender and may occur with singular or plural noun heads.

5. **Ruu refo fo saka sya.**
 Bird this SPEC chase downward
 'This bird chased (him) from above.'

The last tagmeme that may occur in the basic noun phrase is the specifier which is filled by specifying articles. Specifiers in Mai Brat function on the discourse level to spotlight participants and props when their role in the text is especially significant. As shown in table 2, specifying articles are marked for gender. The gender must agree with the gender of the noun head. In example 5, the head noun **ruu** 'bird' and the specifying article **fo** are both feminine.

The basic noun phrase in Mai Brat is very rigid in the ordering of its constituents. To date, no exceptions to the ordering presented in the following array have been found.

Basic noun phrase

+Noun head	+Modifier	+Possessor	+Relativizer
noun	adjective phrase	possessive pronoun	relative clause
attributive noun phrase			

+Quantitizer	+Deictic	+Emphatic	+Limiter	+Specifier
number phrase	demonstrative pronoun	emphatic pronoun	aran 'only'	to, fo, no, fi, teit
			sai 'only'	
			bo 'etc.'	

Array 1

It is interesting to note that there are no obligatory tagmemes in the basic noun phrase. Even the noun head may be omitted as the following examples illustrate.

6. **Mabo** **trion** **tuuf** **mjin** **tet** **abyo.**
 3pl-human count three 3pl-sleep cave above
 'The three people slept at the entrance of the cave.'
7. **Mai** **ro** **Seta** **sait** **yajat.**
 3sgfem-strike who Seta one(masc) 3sgmasc-die
 '(The bomb) struck (a man) from Seta and he died.'

Examples 6 and 7 both have implicit noun heads. **mabo trion tuuf** 'three (humans)' is a number phrase filling the quantitizer position with **raa** 'men' being the implicit noun head. In the next example, **ro Seta sait** 'one from Seta' is a noun phrase consisting of a relativizer and a quantitizer. Its implicit noun head is again **raa** 'man' but in this case it is singular. Headless noun phrases in Mai Brat must minimally have either a relativizer or a quantitizer. Other tagmemes may also be present but do not occur in isolation.

There appear to be some co-occurrence restrictions among the tagmemes of the Mai Brat Noun Phrase. The following pairs of tagmemes never occur together in the data.

* +limiter	+specifier	* +emphatic	+specifier
* +relativizer	+limiter	* +deictic	+limiter
* +quantitizer	+limiter	* +quantitizer	+emphatic
* +possessor	+emphatic		

However, it is possible these restrictions are merely a statistical anomaly since they all involve either a limiter or an emphatic both of which are rare in comparison to the other tagmemes.

2.2 ATTRIBUTIVE NOUN PHRASE

The attributive noun phrase in Mai Brat consists of a noun head juxtaposed to a noun attributive. The two tagmemes may be in either order as the following examples illustrate. When the noun head precedes the noun attributive the noun attributive specifies a particular kind of the noun head in focus. When the noun head follows the noun attributive, the noun attributive specifies the greater 'whole' of which the noun head in focus is a 'part'.

8. **Srusafe** **reno** **ntwok** **fra** **mato.**
 civet cat that 3sgfem-enter rock hole
 'That civet cat went into a hole in a rock.'

In example 8, the noun head **mato** 'hole' follows the noun attributive **fra** 'rock' each being a simple noun. In this case, the noun head **mato** 'hole' is a 'part' of the noun attributive 'whole' **fra** 'rock'.

9. **Amu** **mbewok** **refo** **raa** **ro** **nhar**
 we(ex) 1plex-two this people who 1plex-know
- mai** **raa** **ro** **Indonesia.**
 language people of Indonesia
- 'The two of us were the ones who understood Indonesian.'

The attributive noun phrase in example 9 is **mai raa ro Indonesia** 'language of the people of Indonesia'. In this case the noun head **mai** 'language', a noun, is followed by the noun attributive **raa ro Indonesia** 'people of Indonesia', a noun phrase. Note that ordering of the tagmemes is reversed from the ordering of the preceding example. In this example, the noun attributive **raa ro Indonesia** 'Indonesians' specifies the kind of the noun head, **mai** 'language', which is in focus.

10. Raa mti kak to miwer mam
 people 3pl-carry on one's head meat SPEC 3pl-pass by in
 samu ro finya kabes fane fe.
 house of woman spirit pig not
 'People, carrying meat, do not pass by the house of a woman
 possessed by a pig spirit.'

Example 10 has two attributive noun phrases, one nested as a constituent of the other. The inner phrase has **kabes** 'spirit' as its noun head followed by **fane** 'pig' the noun attributive. The outer phrase consists of the noun head **finya** 'woman' followed by the noun attributive **kabes fane** 'pig spirit' which in itself is a nested attributive noun phrase. Only one level of nesting has been observed in Mai Brat attributive noun phrases.

11. Kabes fane mawian to kbe haberek mamo rukair.
 spirit pig spirit SPEC will turn over 3sgfem-go cassowary
 'The spirit of a pig spirit will change into a cassowary.'

Like the preceding example, example 11 illustrates nesting of attributive noun phrases. The inner phrase is identical to the inner phrase in example 10 and again fills the role of the noun attributive for the outer phrase. Note however that the ordering of the tagmemes in the outer phrase is the opposite of that found in example 10. That is the noun head of the outer phrase **mawian** 'spirit' follows the noun attributive **kabes fane** 'pig spirit'.

To date only nouns have been found filling the noun head tagmeme. The noun attributive may be a noun, noun phrase or a nested attributive noun phrase. The following array presents this structure, but as mentioned above, the ordering of the tagmemes is dependent on the function of the phrase.

Attributive noun phrase	
+Noun head	+Noun attributive
noun	noun basic noun phrase attributive noun phrase

Array 2

2.3 REDUPLICATED NOUN PHRASE

Reduplicated noun phrases are rare in Mai Brat. Only one example was found in the texts studied (example 12 below). Its function in that particular text was to indicate an exceptionally great amount of the item represented by the repeated noun. Reduplicated verbs are common in the narrative texts studied usually indicating durative action or time lapse.

12. O mon mon mon mon
 ! 'mon' cloth 'mon' cloth 'mon' cloth 'mon' cloth
 mon mamo mmit
 'mon' cloth 3pl-go 3pl-from one end to the other
 'There was so much mon cloth that it extended from one end to
 the other.'

Reduplicated noun phrase

+Noun head	+Reduplicating noun head (n)
noun-i	noun-i

Array 3

2.4 PRONOUN PHRASE

The pronoun phrase is structurally distinct from the basic noun phrase. Pronoun phrases can include honorifics and multiple relative clauses which do not occur in the basic noun phrase. Also, pronoun phrases never include the possessors and limiters which can be found in basic noun phrases.

13. **Bi ait sait fi ykah kacang wait**
 Mr. he one(masc) SPEC 3sgmasc-prepare a garden peanut POSSsg-his
 'An older man was preparing his peanut garden.'

The pronoun phrase in example 13 is **bi ait sait fi** 'One older man'. Most constituents of pronoun phrases are found in basic noun phrases as well. For those tagmemes that are common to both, the agreement rules that were discussed for the basic noun phrase also hold for the pronoun phrase. In this example, **bi** 'Mr.' is a tagmeme not found in basic noun phrases. It is an honorific and agrees in gender with the pronoun head. The honorific is optional but when it occurs it must precede the pronoun head. The pronoun head is also optional but either an honorific or a pronoun head must be present in every pronoun phrase. Other familiar tagmemes in this phrase include a quantifier **sait** 'one' and a specifier **fi**.

14. **Yoo ro yayo ait ro Kambuaya ro**
 3sgmasc-take who 3sgmasc-request he who Kambuaya who
riwain hre refi fi.
 earlier 3sgmasc-sit this one(masc) SPEC
 'He took who he had asked for, that man from the Kambuaya clan who earlier was sitting down.'

The phrase **ait ro Kambuaya ro riwain hre refi fi** 'That man from Kambuaya who earlier was sitting' is a pronoun phrase filling the slot of an apposition noun in an appositional noun phrase. One feature of this particular pronoun phrase which distinguishes it from a basic noun phrase is the presence of two independent relativizers **ro Kambuaya** 'from Kambuaya' and **ro riwain hre** 'who earlier sat'. Up to three independent relativizers have been observed in Mai Brat pronoun phrases. The relativizers in this example are then followed by a deictic **refi** 'this' and a specifier 'fi'.

15. **Fai mabi refo mesait mhau bau**
 Mrs. 3sgfem-old this 3sgfem-herself 3sgfem-live by herself
makus.
 3sgfem-remain
 'This elderly woman herself, was left to live by herself.'

Example 15 has a pronoun phrase without a pronoun head **fai mabi refo mesait** 'this elderly woman herself'. **Fai** 'Mrs.' is the feminine honorific. The word **mabi** 'old' seems to have a specialized meaning in pronoun phrases and name phrases. In basic noun phrases **mabi** 'old' would function as one of many possible adjectives filling the modifier tagmeme. However, in pronoun phrases the use of what would normally be considered adjectives is very restricted. In fact, only two occur, **nabi** 'old' and **naku** 'young' and

their respective declensions. Further study may show that these function similar to the English terms 'Jr.' and 'Sr.'. For the time being they will be classified as a second type of honorific. Example 15, also includes a deictic **refo** 'this' and an emphatic **mesait** 'herself'.

16. **Anu nesait aran nkro.**
 you(pl) 2pl-yourselves only 2pl-follow
 'Only you yourselves followed.'

The pronoun phrase **anu nesait aran** 'only you yourselves' above contains a pronoun head **anu** 'you' followed by an emphatic **nesait** 'yourselves' and a limiter **aran** 'only'. The following array displays the structure of pronoun phrases in Mai Brat.

Pronoun Phrase

+Honorific	+Pronoun head	+Honorific-2	+Relativizer (n=3)
bi (masc.)	pronoun	nabi 'old'	relative clause
fai (fem.)		naku 'young'	

+Quantifier	+Deictic	+Emphatic	+limiter	+Specifier
number phrase	demonstrative pronoun	emphatic pronoun	aran 'only'	to, fo, no, fi, teit

Array 4

Emphatic pronouns are rare in Mai Brat pronoun phrases and did not occur in the same pronoun phrase with relativizers, quantifiers or specifiers. The limiter has only been observed in two pronoun phrases, therefore no co-occurrence statement will be made concerning limiters. Also, there was no occurrence of an honorific-2 in the same phrase with a specifier.

2.5 NAME PHRASE

Name phrases in Mai Brat are distinct from other nominal phrases in Mai Brat because of the mandatory inclusion of either a first name head, a last name head or both. Like pronoun phrases, the head may be preceded by an optional honorific and be followed by an optional honorific-2. However, unlike pronoun phrases a possessor may be present. Only single independent relativizers have been observed.

17. **Ku rait, ku Doktorandus yhau mam Meroke teit**
 child POSSsg-he child Doktorandus 3sgmasc-live in Merauke SPEC
 'His child is child Doktorandus who lives in Merauke.'

The name phrase in example 17 is **ku Doktorandus yhau mam meroke teit** 'child Doktorandus who lives in Merauke'. The word **ku** is interpreted as an honorific. Although **Doktorandus** is a title in Indonesian it is frequently used as a first name by Mai Brat speakers. The first name head **Doktorandus** is followed by a relativizer **yhau mam Meroke** '(who) lives in Merauke' and a specifier **teit**.

18. **Faitit msya** **bi Srarknu ranu** **ro Kambuaya teit.**
 Faitit 3sgfem-marry Mr. Srarknu POSSsg-we(in) of Kambuaya SPEC
 'Faitit married our Mr. Srarknu of Kambuaya.'

There are two name phrases in example 18, **Faitit** 'Faitit' and **bi Srarknu ranu ro Kambuaya teit** 'Mr. Srarkno of Kambuaya'. Prior to contact with the Dutch, Mai Brat speakers had only one name. Since that time, they have adopted foreign first names and use their clan name as a last name. This example is from a historical narrative from a time prior to Dutch influence. The first name phrase consists of a first name head in isolation. The second name phrase consists of an honorific **bi** 'Mr.', a first name head **Srarknu** followed by a possessor **ranu** 'our' a relative clause **ro Kambuaya** 'of Kambuaya' and the specifier **teit**. The following array gives the ordered structure of the name phrase. As previously mentioned, a first name head and/or a last name head is required.

Name phrase

+Honorific	+First name head	+Last name head	+Age/honorific2
bi 'Mr.' fai 'Mrs.' naja 'father' ku 'child'	name	name	nabi 'old' naku 'young'

+Possessor	+Relativizer	+Emphatic	+Specifier
possessor pronoun	relative clause	emphatic pronoun	to, no, fo, fi, teit

Array 5

2.6 KINSHIP PHRASE

Most phrases having kinship terms as the head may be included under the basic noun phrase. However, occasionally the possessor may be fronted using pronouns without the normal possessive prefixes. Possessors in the basic noun phrase always follow the head and are marked for number of the referent.

19. **Ana matat,** **fai Bonitwia mawe** **kana mawe, "..."**
 they 3pl-grandmother Mrs. Bonitwia 3sgfem-say to them 3sgfem-say
 'Their grandmother, Mrs. Bonitwia said to them, "...'

The phrase **ana matat** 'Their grandmother' in example 19 is a kinship phrase. The personal pronoun **ana** 'they' functions as a possessor and occurs before the kinship head **matat** 'grandmother'. This same concept expressed in the rigid structure or the basic noun phrase would be **matat rana** 'their grandmother' where the possessor **rana** 'their' is a possessive pronoun (see table 3) and follows the noun head **matat** 'grandmother'. The array below gives the structure of the kinship phrase.

Kinship phrase

+Possessor	+Kinship head
pronoun	kinship word

Array 6

2.7 LINKED NOUN PHRASE

For Mai Brat, a linked noun phrase is posited having the function of both a coordinating and alternative noun phrase. Also a third function occurs where the phrase is not explicitly marked to be alternating or coordinating. In that case, the function can only be determined by semantic context. Positing three separate syntagmemes would lose the structural generalities common to the three functions. The main difference between the three is the filler(s) of the link tagmeme.

20. Ana ntkif **raa** o, **finya msya** ku mkek bo ro kiyam.
 they heal men LINK women 3pl-and children etc. who sick
 'They heal men, women and children who are sick.'

The above example contains a linked noun phrase having three nominal heads. Examples of up to six nominal heads have been observed. The first head **raa** 'men' is connected to the second head **finya** 'women' by the neutral link **o** 'and/or'. **o** 'and/or' is considered neutral since it may either have a coordinating or alternative function depending on the context. In this particular context, it has a coordinating function since the second link **msya** 'and' is explicitly coordinating. There may only be one explicitly coordinating link **msya** 'and' in any one linked noun phrase. All links within a given Mai Brat linked noun phrase have the same function, either coordinating or alternative. The third nominal head is **ku mkek** 'children'. Following the nominal heads is an optional extender **bo** 'etc.' which appears to indicate that the explicit heads are only examples or a subset of a greater set of referents. Finally in this example, the extender is followed by an optional relativizer **ro kiyam** 'who are sick' filled by a relative clause. The referent of this modifier is the entire group of heads not just the last nominal head.

21. Ru taah **msya** sapi mbewok mamu snok mam sawan.
 stork 3sgfem-and cow 3pl-two 3p-go 3pl-arrive at ocean
 'The stork and the cow, the two of them, went to the ocean.'

Example 21, has two nominal heads **ru taah** 'stork' and **sapi** 'cow' linked by the coordinating link **msya** 'and'.

22. Taro to haberek mamu aah krik o, aah waif o
 others SPEC turn over 3pl-go frog 'krik' LINK frog 'waif' LINK
 bo ro mboh to.
 etc. which white SPEC
 'Others change into **krik** frogs, **waif** frogs, and/or other things which are white.'

The linked noun phrase in example 22 is **aah krik o, aah waif o bo ro mboh to** 'krik' frogs, 'waif' frogs, and/or other things which are white'. When all the links in a linked noun phrase are neutral links, **o** 'and/or' such as in the above example, the function of the links needs to be determined by the semantic context of the phrase. In this case the **taro** 'others' refers to other spirits each of which may take on the form of a white animal such as the two explicitly mentioned nominal heads **aah krik** 'krik' frogs' and **aah waif** 'waif' frogs'. With that information the

links will be posited as having an alternative function, where any one of the spirits would only turn into one of the possible alternative animals. Like example 19, this example has both the extender **bo** 'etc.' and a relativizer **ro mboh** 'which are white'. The last word in the phrase is the optional specifier **to**.

23. **Bo ro bain to, ku wait soh mfe yfain**
thing which repayment SPEC child his(pl) or 3sgmasc-wife
soh mfe ait yesait.
or he 3sgmasc-himself

'The repayment will be his children, his wife or his own life.'

An explicitly alternative noun phrase is shown in example 23 **ku wait soh mfe yfain soh mfe ait yesait** 'his children, his wife or his own life'. The three nominal heads are linked together by two explicitly alternative links **soh mfe** 'or'. Unlike the coordinating link **msya** 'and', the alternative link **soh mfe** 'or' may occur more than once in a given linked noun phrase.

24. **Aah waif soh mfe aah krik o fiyam to mbam**
frog 'waif' or frog 'krik' LINK eel SPEC 3sgfem-from
bromabyo mbtek.
sky 3sgfem-fall

'A waif frog, krik frog or an eel will fall from the sky.'

In example 24, the linked noun phrase **aah waif soh mfe aah krik o fiyam to** 'a 'waif' frog, 'krik' frog or an eel' illustrates the occurrence of the explicitly alternative link **soh mfe** 'or' with the neutral link **o** 'and/or' in the same phrase. In this case, the neutral link is interpreted as being alternative in function, since all links in the same linked noun phrase must have the same function and an explicitly alternative link is present. Note also that the coordinating link **msya** 'and' and the alternative link **soh mfe** 'or' are never found in the same phrase. The following arrays present the ordered structure of Mai Brat linked noun phrase.

Linked noun phrase

+Linked head (n=5)	+Nominal head final	+Extender	+Relativizer	+Specifier
noun-link phrase	noun phrase pronoun phrase name phrase attributive noun phrase	bo 'etc.'	relative clause	to, no fo, fi, teit

Array 7

Noun-link phrase

+Nominal head	+Link
noun phrase	o (neutral link)
pronoun phrase	nsya 'and'
name phrase	soh mfe 'or'
attributive noun phrase	

Array 8

2.8 APPositionAL NOUN PHRASE

The appositional noun phrase in Mai Brat consists of a nominal head followed by one or two apposition nominals. Both the nominal head and any apposition nominals refer to the same entity with the apposition nominals focusing on the identity of the head in other words.

25. **Ana matat,** **fai Bonitwia** mawe kana mawe, "..."
 they 3pl-grandmother Mrs. Bonitwia 3sgfem-say to them 3pl-say
 'Their grandmother, Mrs. Bonitwia said to them, "...'"

In example 25, the phrase **ana matat, fai Bonitwia** 'Their grandmother, Mrs. Bonitwia' is an appositional noun phrase. **ana matat** 'their grandmother', a kinship phrase, is the nominal head and **fai Bonitwia** 'Mrs. Bonitwia', a name phrase, is the apposition nominal providing more exact identity of the nominal head.

26. **Lumbles yawe,** **bo iis anu bno**
 Lumbles 3sgmasc-say thing yesterday we(in) 1plin-make

 no, wata no, mayo syoh bo to.
 SPEC fish trap SPEC 3sgfem-lift fish etc. SPEC
 Lumbles said, "The thing we made yesterday, the fish trap, (the thing which) catches fish etc.."

The appositional noun phrase in example 26 has the nominal head **bo iis anu bno no** 'the thing we made yesterday' and two apposition nominals **wata no** 'the fish trap' and **mayo syoh bo to** '(the thing which) catches fish etc.'. All three of those constituents are noun phrases. The first noun phrase, the nominal head, contains a relative clause, **iis anu bno** '(which) we made yesterday' without the relative pronoun **ro** 'which'. The head then ends with the specifier **no**. The first appositional nominal **wata no** 'fish trap SPEC' is simply a noun **wata** 'fish trap' followed by the specifier **no**. The last noun phrase has no noun head and consists of another relative clause without the typical relative pronoun **ro** 'which'. The following array gives the structure of Appositional noun phrases in Mai Brat.

Appositional noun phrase

+Noun head	+Noun apposition (n=2)
noun	noun
noun phrase	noun phrase
pronoun phrase	pronoun phrase
name	name
name phrase	name phrase
kinship phrase	kinship phrase

Array 9

3 CONSTITUENT PHRASES

The phrases to be discussed in the following sections normally do not function as nominals in and of themselves but instead fill tagmemes found in nominal phrases. Specifically various number phrases and adjective phrases will be included here.

3.1 NUMBER PHRASE

The Mai Brat number phrase consists of an obligatory number head optionally preceded by a nominal classifier and/or a count introducer **trion** 'count'. The number head may either be a scores number phrase or an indefinite number phrase. The nominal classifier matches the class of the referent head noun. For example, the classifier **maan** 'sharp' for pointed object would be used when counting nails, knives or needles.

27. Raa **mabo** **trion** **tuuf** mjin tet abyo.
 men 3pl-human count three 3pl-sleep cave above
 'Three men slept at the mouth of a cave.'

The number phrase **mabo trion tuuf** 'three humans' in example 27 fills the quantitizer tagmeme of a basic noun phrase. The noun head of the noun phrase is **raa** 'men'. The classifier **mabo** 'human' is used when the item being quantitized is human in nature. The count introducer **trion** 'count' follows the classifier in this example.

28. Serarmetu sbe wait **trion** **mara** **maat**.
 Serarmetu spear POSSpl-he count tree five
 'Serarmetu has five spears.'

Example 28 has a number phrase **trion mara maat** 'five long things' which quantitizes the noun head **sbe** 'spears'. **mara** 'tree' is the classifier for long items such as spears, trees or boards. Note that in this example, the count introducer **trion** 'count' precedes the classifier **mara** 'tree'. This is the reverse order of what was found in example 27. In all cases observed so far, the count introducer follows the classifier except when the classifier is **mara** 'tree'. When the classifier is **mara** then and only then the count introducer precedes the classifier.

29. Bi Salmon yiji wata **tuuf**.
 Mr. Salmon 3sgmasc-weave fish trap three
 'Mr. Salmon wove three fish traps.'

The minimal number phrase in Mai Brat is a scores number phrase without a count introducer or classifier. This is shown in example 29. The number phrase is **tuuf** 'three' which quantitizes the noun head **wata** 'fish trap'. The following array gives the most common structure of the number phrase.

Number phrase		
+Classifier	+Count introducer	+Number head
mabo 'people'	trion	scores number phrase
maan 'sharp items'		
mara 'long items'		alternative number phrase
makan 'small round items'		
make 'tubers'		digits number phrase
mana 'animals'		
sarer 'clusters'		indefinite number phrase
masin 'sheets' ...		

Array 10

3.1.1 SCORES NUMBER PHRASE

The Mai Brat number system may be compared to a base twenty number system. The first digit in a base twenty system ranges in value from zero

to nineteen which is the same as the digits number phrase. The second digit in a base twenty system represents multiples of twenty (scores) to be added to the first digit. This second digit in Mai Brat consists of a number of dead men. Each man having a total of twenty fingers and toes. The scores number phrase discussed in this section is the Mai Brat version of a two digit base twenty number system.

30. **raa sait**
 man one (masc)
 'twenty'

The simplest scores number phrase consists of a single scores digit as shown in example 30. In this example **raa** 'man' is the score head and **sait** 'one' is the number multiplier. There is no digits number phrase to be added so the numerical value represented by this phrase is simply twenty.

31. **raa maat mhai**
 men five 3pl-die
 'one hundred'

Example 31 again shows only the scores digit **raa maat mhai** 'five dead men' which when evaluated five times twenty equals one hundred. The score closure **mhai** is optional but tends to occur most frequently when the number multiplier is greater than one.

32. **raa ewok mhai taa habah ntamam**
 men two 3pl-die feet fragment six
 fifty six

Example 32 shows a maximal scores number phrase which includes both a scores digit **raa ewok mhai** 'two dead men' and a units digit or digits number phrase **taa habah ntamam** 'feet plus six fragments'. To evaluate this scores number phrase the number of dead men **ewok** 'two' is multiplied by twenty which yields forty. This forty is then added to sixteen, the value of the digits number phrase, giving a total of fifty six. The following array symbolizes the structure of the scores number phrase.

Scores number phrase

<u>+</u> (+score head	+Number multiplier	<u>+</u> Score closure)	<u>+</u> Addition head
raa 'man'	number	mhai 'die'	digits number phrase

Array 11

3.1.2 DIGITS NUMBER PHRASE

The digits number phrase in Mai Brat has an obligatory added digit filled by a digit between one and ten. This may then be preceded by an optional decimal head and/or a digit link.

33. **jit**
 four
 'four'

Example 33 gives the simplest and most common form of the digits number phrase: an added digit in isolation.

34. **taa habah sau**
 feet fragment one
 'eleven'

The digits number phrase **taa habah sau** 'eleven', above, includes the decimal head **taa** 'ten' (lit. 'feet') indicating ten plus the added digit which in this case is **sau** 'one'. The digit link **habah** 'plus' (lit. 'fragment') mandatorily occurs whenever the decimal head is present.

35. **raa sait habah sau**
 man one(masc) fragment one
 'twenty one'

When the decimal head is not present the digit link may only be present if the digits number phrase is part of a scores number phrase valuing over twenty. Example 35 is such an example with the digits number phrase **habah sau** 'one' imbedded in a scores number phrase **raa, sait habah sau** 'twenty one'. Along with the previously noted restrictions the following array gives the structure of the digits number phrase.

Digits number phrase

+Decimal head	+Digit link	+Added digit
taa 'ten' (lit. 'feet')	habah 'plus' (lit. 'fragment')	number

Array 12

3.1.3 INDEFINITE NUMBER PHRASE

The indefinite number phrase in Mai Brat has an obligatory indefinite number head optionally followed by an intensifier. The indefinite number phrase is structurally similar to the adjective phrase which is discussed later in this analysis. There are two significant differences however. First, the indefinite number phrase has a different intensifier **ati** 'very' than the one found in the adjective phrase **toni** 'very'. Second the adjective phrase fills modifier tagmemes and the indefinite number phrase fills quantifier or number head tagmemes.

36. **Nyo nse boo mawat.**
 you(sg) 2sg-store exchange cloth many
 'You have many pieces of exchange cloth.'

In example 36, the indefinite number phrase consists only of the indefinite number head **mawat** 'many'.

37. **Ku mkek mawat ati mhai mam kiyam refo.**
 children young many very 3pl-die from sickness this
 'Very many young children die from this sickness.'

The indefinite number phrase in example 37 is **mawat ati** 'very many'. The phrase has the indefinite number head **mawat** 'many' followed by an intensifier **ati** 'very'. The following array gives the structure of indefinite number phrases.

Indefinite number phrase

+Indefinite number head	+Intensifier
mawat 'many' msis 'abundant'	ati 'very'

Array 13

3.2 ALTERNATIVE NUMBER PHRASE

The alternative number phrase in Mai Brat must have two or three number heads optionally separated by alternative links. This basic core may then be optionally modified by the extender *bo* 'etc.' and/or the approximate *feto* 'around'.

38. Raa mabo **maat**, **ntamam**, **nkrema** *feto* mhau mam atu.
 men 3pl-human five six seven around 3pl-live on mountain
 'Around five, six or seven men live on the mountain.'

The alternative number phrase in example 38 is **maat**, **ntamam**, **nkrema** *feto* 'around five, six or seven'. The three number heads **maat** 'five', **ntamam** 'six' and **nkrema** 'seven' do not have any explicit links between them. The approximate *feto* 'around' seems to indicate that the actual number is somewhere around the range of numbers that it follows.

39. Yaren ka raa mabo **tuuf** o **jit** *bo* **feto**.
 3sgmasc-pay wages to men 3pl-human three LINK four etc. around
 'He pays wages to around three, four or more men.'

Example 39 contains the alternative number phrase **tuuf** o **jit** *bo* **feto** 'around three, four or more'. The number heads **tuuf** 'three' and **jit** 'four' are separated by the neutral link o 'or'. Note that in the section discussing linked noun phrases the link o 'and/or' was considered neutral, having either a coordinating or alternative function depending on the context. When found in alternative number phrases it will be interpreted as explicitly having an alternative function 'or'. The linked number heads are followed by the extender *bo* 'or more'. The presence of the extender in alternative number phrases seems to indicate that the actual number may be any of the explicitly listed numbers or a higher number. This particular phrase then ends with the approximate *feto* 'around'.

40. Komabah refo mhau masno **nkrema** **soh** **mfe** **nkrentuuf** *bo*
 garden this 3sgfem-stay days seven or eight etc.
 kbe mko sah.
 will 3pl-burn be able
 'This garden is left for seven, eight or more days and then they will be able to burn it.'

The alternative number phrase **nkrema** **soh** **mfe** **nkrentuuf** *bo* has two number heads **krema** 'seven' and **krentuuf** 'eight' which are linked by the alternative link **soh** **mfe** 'or'. The last tagmeme present in the phrase is the extender *bo* 'or more'.

41. Bi sait yabe ku ano wait
 Mr. one(masc) 3sgmasc-give birth children female POSSpl-he
 mabo **ewok** **soh** **mfe** **mawat** *feto*.
 3pl-human two or many around
 'One man will give birth to two or more daughters.'

The last example of the alternative number phrase is **ewok soh mfe mawat fetu** 'around two or more'. The second number head in this phrase is an indefinite number phrase **mawat** 'many'. The structure of the scores number phrase is given in the following array.

Alternative number phrase

+Alternative number head-1	+Link	+Alternative number head-2 (n=2)	+Extender	+Approx- imate
scores number phrase	soh mfe 'or' o 'or'	scores number phrase indefinite number phrase	bo 'or more'	fetu 'around'

Array 14

3.3 ADJECTIVE PHRASE

The adjective phrase in Mai Brat consists of an obligatory adjective head optionally followed by one or two intensifiers.

42. **Raa makyo bokyo maboh.**
 people 3pl-celebrate party 3sgfem-big
 'The people celebrated with a big party.'

The simplest form of an adjective phrase is an adjective head without any intensifiers. Example 42 illustrates this form with **maboh** 'big'.

43. **Wiak ro kjo to mase toni.**
 canoe which to me SPEC 3sgfem-large very
 'The canoe for me was very large.'

The adjective phrase in example 43 **mase toni** 'very large' begins with the adjective head **mase** 'large' and is followed by an intensifier-1 **toni** 'very'.

44. **Haifamun to marak fiyaf syok.**
 haifamun SPEC 3pl-skin yellow extremely
 'Haifamun have extremely yellow skin.'

Example 44 illustrates an intensifier-2 **syok** 'extremely' following an adjective head **fiyaf** 'yellow'. The intensifier **syok** 'extremely' is a stronger intensifier than **toni** 'very'.

45. **Ana kabes fane safo toni syok.**
 they spirit pig evil very extremely
 'They are extremely evil pig spirits.'

Example 45 illustrates a maximal adjective phrase **safo toni syok** 'extremely evil'. The adjective head is **safo** 'evil' and is followed by both ordered intensifiers **toni** 'very' and **syok** 'extremely'. When both intensifiers are found together in this way the combined intensity seems to be stronger than either one alone. The following array gives the structure of the Mai Brat adjective phrase.

Adjective phrase

+Adjective head	+Intensifier-1	+Intensifier-2
adjective	toni 'very'	syok 'extremely'

Array 15

*ABBREVIATIONS

ex	exclusive	POSS	possessive
fem	feminine	sg	singular
in	inclusive	SPEC	specifying article
LINK	neutral link	1	first person
lit	literally	2	second person
masc	masculine	3	third person
pl	plural		

NOTES

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