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THE MEK LANGUAGES OF IRIAN JAYA WITH SPECIAL REFERENCE TO THE EIPO LANGUAGE

Volker Heeschen

Ikhtisar:

Kertas ini menyajikan garis besar keadaan bahasa-bahasa Mek, yang sebelum diteliti secara lebih mendalam oleh penulisnya (seorang anggota Team Feneliti Jerman Barat) dikenal dengan nama "Bahasa-bahasa Goliath". Pada umumnya di kalangan ahli bahasa terdapat anggapan bahwa perbedaan antara bahasa dan dialek adal..

Summary:

The article gives a survey of the Mek languages, formerly called Goliath languages, in the Kabupaten Jayawijaya, Irian Jaya. The unity and diversity of these languages is illustrated, and the possibly wider connections of the Mek family are reviewed. A sketch of the grammar of the Eipo language is added.

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0. Introduction

The Mek languages of Irian Jaya are known as the Goliath languages or as the languages of the Goliath family, but the name Goliath is now obsolete. The actual location of the descendants of the Goliath pygmies described by de Kock (1912) is not known, no further fieldwork having been done in this marginal area. Thus Schiefenhövel (1976:265-6) has proposed calling these languages the Mek languages. As the people of the area are not aware of their linguistic and cultural unity and as there is, accordingly, no native term for it, the word for river, water is taken as a denominator. The expression has been chosen in analogy to the Ok languages, where Ok means the same as mek.

0.1 Location

The bulk of the languages and dialects is spoken in an area which is situated in the Kecamatan Kurima of the Kabupaten Jayawijaya. Approximately, the area stretches from 139° 30' eastern longitude to 140° 31' eastern longitude. The exact southern and northern limits are not known. Presumably a line about 30 km south of the Idenburg comes close to the correct limit in the north. Schiefenhövel and the present writer found speakers of a Mek language (Sirkaí) 40 km southeast of Pagai, but we were told that they originated from an area further to the east. The southern limits may be the beginning of the lowlands south of the Central Range. Further to the east and the south-east, one will find speakers of the Ok languages, to the south languages of the Ayu-Dumut family are spoken, in the west languages of the Great Dani family. Voorhoeve (1975a) does not indicate the northern neighbors of the Mek family. At least one further language, the Kosare language, is spoken between the languages of the Kaure stock (Voorhoeve 1975a) north of the Idenburg and the Mek family (see map and appendix).

So far the following languages and dialects of the Mek family are known. (Whenever possible I will give (a) the name of the language used in this article, (b) alternative names, the native names being underlined, (c) the approximate location of the place where the data have been collected, and (d) the sources if seen by the present writer and if not published. Because of the earthquake in this area on June 26, 1976, and because of the subsequent perturbations I am not able to give demographical data.)

The following dialects have been excluded from my list and from the calculation of the shared cognates, because they are too close to one of the languages or dialects already mentioned: (1) the language of the Pa valley west of Eipomek; (2) the dialects of Limere and Telu spoken east and northwest of Bime; (3) the dialects of Kirome and Bame spoken in the valleys between Kamume and Ok Bab north of the Central Range. The dialects up to 30 km north of Nalca, Eipomek and Ok Bab are reported to be essentially the same as their southern counterparts.
(1) a: Eipo, b: language of Bipom, lik yune, c: 140°; 4° 28',
d: grammar, wordlists, and texts by VH.
(2) a: Larye, b: language of Larye, una, c: 139° 55'; 4° 40',
d: phonological statement by J. Louwerse and Y. van der Wilden, several wordlists by J. Louwerse and VH respectively, texts and grammatical notes by VH (Larye is spoken in Bipom, too).
(3) a: Goliath language, c: see map.
(4) a: Korapun, c: 139° 36'; 4° 29'.
(5) a: Nalca, b: hamangon, hamangona, c: 139° 48'; 4° 23',
(6) a: Nipsan, b: Yali, c: see map.
(7) a: Kosarek, b: Wanam, c: 139° 29'; 4° 6', d: grammatical notes by members of GKI, grammatical notes and wordlist by VH.
(8) a: Kinome, b: language of Kinome, c: see map, d: wordlist and grammatical notes by VH.
(9) a: Tanime, b: language of Tanime, Tani, ware, c: 140° 6'; 4° 25', d: grammatical notes, wordlists, and texts by VH. (Tani is also spoken in Bipom.)
(10) a: language of Bime, b: Bi Me, Bi language, ware, c: 140° 11'; 4° 30', d: rather extensive grammatical notes and wordlists, texts by VH. (After the earthquake the people moved to an area somewhat northwest of Ok Bab.)
(11) a: language of Kamune, c: 140° 18'; 4° 31', d: wordlist by VH.
(12) a: Ok Bab, b: language of Ok Bab, Kupel, ketengban, c: 140° 31'; 4° 31', d: grammar by G. & J. Fowler, and M. & J. Rule; wordlist and text by VH.
(13) a: Sirkai, c: see map, d: wordlist by VH.

The unpublished sources are either available from the present writer or from the missionary stations.
8.

0.2 Research concerning the Mek family.

For a long period the wordlist of de Kock (1912:169-70), re-published in Le Roux (1948, II, 902-13), was the only work available for comparative purposes. On the basis of this work, Healey (as quoted by Bromley), McElhanon and Voorhoeve (1970), and Wurm (1971:595-6) incorporated the Mek languages into the Trans-New Guinea Phylum. Though this wordlist seems to be fairly reliable, Bromley (1966:299) believed the comparable items of this list to be "too brief for calculation of meaningful percentages". On the evidence of four subsequent wordlists from Kosarek, Nalca, Korapun, and Ok Bab, he established the Goliath family which is "clearly a group of closely related languages, sharing 50% or more basic vocabulary with each other" (Bromley 1973:16). This statement, which is firmly corroborated by my findings, could have even been better based if the pioneering work of an Indonesian expedition (Laporan Expedisi 1971) had been published. The report contained wordlists and words of the languages between Eipomek and Bime. Voorhoeve's (1975a: 116-7) wordlists of the languages of Kosarek, Nalca, Korapun, Nipsan and Ok Bab are based on Bromley's collections. In this publication and in Voorhoeve (1975 b: 398-400) the membership of the Mek languages to the Trans-New Guinea Phylum is unquestioned. Some notes on the grammar of the Eipo language can be found in Heesch (1977:650). Heesch (in press) discusses the metalinguistic vocabulary of the Eipo language from the viewpoint of the ethnography of communication and psycholinguistics. Heesch, Schiefenhövel, and Eibl-Eibesfeldt (in press) look for the relationship of non-verbal and verbal behaviour in the Eipo speech community from the standpoint of human ethnology. More general information on the culture and society of the Eipo is given by Schiefenhövel (1976), Eibl-Eibesfeldt (1976), and Koch (1977).

9.

1. The Mek Languages

1.1 Internal relationships. Lexicostatistical evidence.

The following table gives the percentages of shared cognates between the languages and dialects mentioned above.

Mek Languages: Percentages of Shared Cognates

<table>
<thead>
<tr>
<th>Language</th>
<th>Kosarek</th>
<th>Nalca</th>
<th>Korapun</th>
<th>Nipsan</th>
<th>Ok Bab</th>
<th>Eipo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kosarek</td>
<td>75.78</td>
<td>76.62</td>
<td>84.98</td>
<td>84.98</td>
<td>76.62</td>
<td>75.78</td>
</tr>
<tr>
<td>Nalca</td>
<td>75.78</td>
<td>74.58</td>
<td>73.95</td>
<td>73.95</td>
<td>72.58</td>
<td>74.58</td>
</tr>
<tr>
<td>Korapun</td>
<td>76.62</td>
<td>74.58</td>
<td>74.58</td>
<td>74.58</td>
<td>74.58</td>
<td>76.62</td>
</tr>
<tr>
<td>Nipsan</td>
<td>84.98</td>
<td>73.95</td>
<td>74.58</td>
<td>74.58</td>
<td>74.58</td>
<td>84.98</td>
</tr>
<tr>
<td>Ok Bab</td>
<td>76.62</td>
<td>74.58</td>
<td>74.58</td>
<td>74.58</td>
<td>74.58</td>
<td>84.98</td>
</tr>
<tr>
<td>Eipo</td>
<td>75.78</td>
<td>74.58</td>
<td>74.58</td>
<td>74.58</td>
<td>74.58</td>
<td>75.78</td>
</tr>
</tbody>
</table>

The table yields the picture well known throughout Irian Jaya and Papua New Guinea, namely that of dialect chaining, e.g. starting in Nalca and moving to the east, the percentages of shared cognates are diminishing step by step. Due to the lack of material the same picture cannot be sketched for the chains in the north-south direction. According to the impressions of J. Binsell, D. Cole, and G. Fowler, and according to my own
observations languages and dialects are more rapidly changing
in the west-east direction than in the north-south direction.
The high degree of relationship between Larye and Sirkai and
the low figure of cognates shared by Kosarek and Sirkai seems
to support these impressions. Contrary to what has been assumed
in the literature on lexicostatistics (see, for example,
McElhanon 1971:134-5) the limit between a dialect and a language
seems not to be at 81% or lower, but between 83% and 84%, as
far as the Mek languages are concerned. This proposal is based
on the observation of, and the Eipo's judgment on, the reciprocal
intelligibility of differing languages. We had speakers of
Bime, Nalca and Kosarek as guests in Eipomek, and I walked from
Eipomek to Ok Bab with four Eipo. But the intelligibility does
not depend on the vocabulary, but on different sets of so called
function words and morphemes: the interrogative and demonstrative
pronouns, the tense-person affixes, and the post-positions are
either etymologically different or have different phonetic realiza-
tions.

Assuming that the limit between a language family and a stock
is 28% or lower, the close relationship and relatedness of the
Mek languages to each other is self evident from the calculations,
the lowest figure of shared cognates being 59.73%. The related-
ness is confirmed by the fact that all grammatical features as
described in the sketch of the Eipo grammar are found in all
members of this family.

1.2 Diversity of the Mek languages

Using some morphological, phonological and lexical criteria
the Mek languages can be divided into two groups, a western one
including Eipo, Nalca, Korapun, Nipsan, and Kosarek, and an
eastern one including Larye, Kinome, Tanime, Bime, Kammme, Ok
Bab, and Sirkai. (In the following the first group is abbreviated \(W\), the second one E.) The examples illustrating this
grouping are only sample proofs.

\(W\) has as the future infix \(-na\), as the immediate future
infix \(-nu\), while E shows \(-ka\) and \(-ko\), e.g. Eipo \textit{binnanam},
Tanime \textit{binkam} 'we two will be going', Eipo \textit{binnun}, Tanime
\textit{binkun} 'I will be going instantaneously'.

Stem final \(-r\) or \(-l\) of verbal stems seems to be generalized
in \(W\), while E shows these stems only in composite forms. Thus
we have Kosarek \textit{malama} and Tanime \textit{mahmar} 'he is sleeping',
where \textit{mal-} and \textit{mah-} are the stems; but Tanime has also \textit{mar-}
binkamere 'I am going to sleep', where the stems \textit{mar-} 'to sleep'
and \textit{bin-} 'to go' build up a composite form and where \textit{mah-}
has changed the final consonant. Eipo has both forms, \textit{malame} 'he
is sleeping usually' or 'he has been sleeping usually' and
\textit{mahmar} 'he is sleeping' adding a shade of meaning to the dif-
ferent morphemic processes. This hints at the fact that \(W\)
has restructured subparts of its verbal system using only com-
posite forms; the infix \(-am\) in Kosarek \textit{malama} and Eipo \textit{malame}
derives from another verb, \textit{ab-} 'to do, make, say'.

\(W\) has separate forms for the 2nd and 3rd plural of the
pronouns, e.g.

\begin{quote}
's you (all)' Eipo \textit{angun} Tanime -
'they' Eipo \textit{alik} Tanime \textit{sun}
\end{quote}

Syllable and word final \(-1\) in \(W\) corresponds to \(-r\) in E, e.g.
Eipo \textit{birnai} and Tanime \textit{binnai} 'he is going'.

Word initial \(n\) is lost in \(W\) and shows varying reflexes in E:
Eipo \textit{ob-}, Tanime \textit{ahb-}, Bime \textit{pn-} \([p\mathfrak{h}]\), larye \textit{ob-} \([h\mathfrak{p}]\) 'to
beat, kill'.

In some items word initial \(k\) in E corresponds to zero in \(W:
's you' Eipo \textit{ak} Tanime \textit{kan}
'to give' \textit{areb-} \textit{kareb-}
'to become, be' \textit{ub-} \textit{kub-}
\end{quote}

The distribution of some lexical items, all of them belonging
to the basic vocabulary confirms this subgrouping, thus the
two groups have different words for 'to say', 'blood', 'bird', and 'all', e.g.

<table>
<thead>
<tr>
<th>W</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>'blood'</td>
<td>Eipo</td>
</tr>
<tr>
<td></td>
<td>ining</td>
</tr>
<tr>
<td>'bird'</td>
<td>Kosarek</td>
</tr>
<tr>
<td></td>
<td>winang</td>
</tr>
<tr>
<td>'all'</td>
<td>Eipo</td>
</tr>
<tr>
<td></td>
<td>nirva</td>
</tr>
<tr>
<td>'to say'</td>
<td>Eipo</td>
</tr>
<tr>
<td></td>
<td>winyab-</td>
</tr>
</tbody>
</table>

The words given here only for one language are identical in the other languages of the respective groups. Only the Eipo language is not consistent, thus we have the eastern word for bird, mak.

Stress seems to be partially phonemic in the east, e.g. Ok Bab 'uku 'fire' and ṅuku 'young plant of sweet potatoes', while tones are said to be phonemic in Nalca and Kosarek (Bromley 1973:15 and Rule and Cutting). Though I have not found any minimal pair in Nalca and Kosarek, the development of (non) phonemic tones can be explained by two processes:

1. Two syllables are contracted into one voicing of the medial consonant and subsequent loss of this voiced consonant between two vowels, cp. Bise ambotum, Eipo ambosum [ambo'tum], Nalca ampum [am'pum] 'yesterday'. In all the examples I have collected syllable contraction is involved in the development of tonal features and this contraction in the west presupposes stress to the east, that is to say, I interpret the geographical distribution as a representation of the historical developments of the western group of languages.

2. High rising tone is conditioned by the presence or loss of word final glottal stop. In Eipo we find minimal pairs of the following kind: fokiri 'whistling', fornusa 'sexual intercourse', phonetically [fɔkiri] and [fɔrnusa]. Final glottal stop is only present in a small subpart of the nouns, namely deverbal nouns.

Thus tonal features develop only in certain restricted environments, and the tonal analysis of Nalca and Kosarek may be partly right, though, due to the restrictions, tones have to be marked only on a very limited set of the vocabulary.

Regardless of the fact whether the contraction of two syllables is at the origin of tonal features, this phenomenon is the cause of a considerable diversity of the phonological shapes of words which apparently have a common etymon. Cp., e.g. 'pig': Ok Bab bisam, Bise and Tanime besam, Eipo basam, Fm valley ban, Nalca and Kosarek pan; 'way, path, direction': Ok Bab and Bise bisi, Eipo bisiik, Nalca pik, Kosarek bi; 'small, little': Bise and Eipo mok, Nalca mik; 'yesterday, tomorrow': Bise ambotum, Eipo ambosum, Nalca ampum. Contraction seems to involve the following processes and rules:

1. It does not operate across morpheme boundaries.
2. The word medial consonant must be an alveolar. /d, r, n/ tend to be flapped in this position. /t/ in this position is first fricativized and then lost.
3. In most cases the two vowels are either high and mid front vowels or high and mid back vowels.
4. Where this is not the case, high vowels in prestress position are progressively assimilated to the following low or back vowels, that is, contraction and loss of word medial consonants is preceded by a phase of vowel harmony.

Evidence for this supposed diachronic development comes from synchronical alternations in the Eipo language. Here we have a good number of verb stems with the following alternating shapes: birib- and bib- 'to stretch, sketch, vibrate', dinik- and dik- 'to fasten, fix'. Presumably this development is at the origin of a further point of diversity. The contracted words have closed vowels against open vowels in the two syllable stems. Now imagine that the longer forms become obsolete. The closed vowels can no longer be explained by an underlying alternative
form with open varieties. This development gives rise to a more complicated vowel system. This complication goes with con-
traction from east to west. Thus Larye and Ok Bab are reported to possess a five vowel system, Eipo and Nalca a seven vowel
system.

Concerning diversity a last point has to be mentioned here. Compared with the presence of common etonyms of the basic vocabulary the interrogative pronouns show an astonishing de-
gree of diversity. The word for 'what' is in Ok Bab, Kamume, Bime, Tanime ware, Kinome munta-, Larye una, Eipo vate, Nalca hyka, and Kosarek anessa. The reconstruction of a common etymon, though phonetically possible, would have to postulate ad hoc rules. Any lautgesetz explaining this diversity is not support-
ed by the correspondences among other items of the different languages. At the moment I cannot account for this.

1.3 Evaluation of diversity

Diversity seems to be highest in the west and lowest in the eastern dialect chain. The average of shared cognates among
the languages of the western group is 77.93%, while it is 86.9% in the eastern group (Eipo again included). I do not know whether this difference is statistically significant, but if one takes it for granted that the place of the original spreading of the languages is where the diversity is highest, then this place must be somewhere between Larye - Eipomék - Nalca - Kosarek. This is consonant with the facts that the diversity of the interrogative pronouns, which must be an old layer in all languages, is highest in this area and that the area of phonetic innovations as evidenced by the development of tonal features and syllable contraction is in the west. This diversity contrasts singularly with the unity of all dialects east of Eipomék. With the exception of Eipo itself and Kinome and Larye on the margins of this area, the unity is further proved by the presence of only one etymon

for the interrogative pronoun. What can be said with a fair degree of reliability is that the spreading of dialects in the large area between Tanime and Ok Bab is due to more recent de-
velopment than in the other parts. With a better knowledge of the dialect chains the history of the peopling and the spreading of languages may be traced more in detail.

Nonlinguistic evidence suggests that the original habitat of the Mek people was not the large valleys of the highlands, but the foothills and lowlands north of the Central Range. The Eipo tell in their myths how the mythical ancestors and the founders of culture handed over the victuals to mankind, and in enumerating these victuals they do not mention the sweet potato, but never fail to name the sago, though the subsistence of the highland people is nowadays dependent on the sweet potato, most of the people having not even seen sago. The myths, then, may hint at an area of settlement before the introduction of the sweet potato and the subsequent peopling of the highlands by a new wave of horticulturists some hundred years ago.

To my knowledge Eipomék is the only region where according to the abovementioned criteria three well defined dialects are spoken, namely Eipo, Tanime, and Larye. Eipo itself is the easternmost of the western dialect chain, but being exposed to two dialects of the eastern chain, it is characterized by mixing on the morphological (see above discussion of stem final con-
sonants of the verb), phonological and lexical level (see discussions above). The myths, the songs of the older people, and the tabooed names of mountains, rivers, body parts, etc. have the phonological shape of the eastern group. The vocabu-
larly of the everyday language points to the west, which is, I believe, the area of innovations, while the language of myths and the sacred names retain apparently an older layer, which is that of everyday communication in the more conservative eastern group. To give only two examples: in Eipo the everyday
word for 'penis gourd' is *sanyum*, the tabooed and sacred name is *balum*, but in Tanime and Bime the common word is *balape* (bal- is the stem); Eipo has *nirya 'all*', Bime *ayuma*, but the Eipo myths tell: *Yalenye yume yapuk, Yalenye yume boamuk* 'Yalenye (a mythical hero) first came, Yalenye all has given'.

Mixing has sometimes simply enriched the vocabulary of the Eipo language. Thus western *bai- and eastern *barve or *hari- 'forest, outside (as opposed to village and cultivated land)' are found in Eipo: *baibuk* 'to be cold (lit. to be outside)', *baidonok- 'to throw away', *bai basam 'wild pig (one still living in the forest)' but *barve asiik 'village in the forest', *barve 'something mysterious, unearthly (what one expects to encounter in the forest).'

Thus variability, idiolects, and sociolcets in one language can be traced back to the original spreading of innovations from the west to the east and to the conservation of older layers in the eastern dialects. I believe that a survey of the dialects and some guesses at the spreading of these dialects may contribute to a better understanding of the language actually under research. For the reconstruction of a common vocabulary it seems to be even necessary.

1.4 External relationship

The membership of the Mek languages of the Trans-New Guinea Phylum seems to be firmly established (Wurm 1971: 595 – 6; McElhanon & Voorhoeve 1970: 7 – 16; Bromley 1973: 15 – 6; Voorhoeve 1975a: 46 and 1975b: 396 – 400). Since Bromley (op cit) I have not found any new calculations of shared cognates. According to Bromley, who summarizes the calculations of Healey and Voorhoeve, the Mek languages share 10% to 25% possible cognates with Ok, which would assign to them the status of a family isolate within the Trans-New Guinea Phylum. "In contrast, there are still, on better lists carefully rechecked, only three or four possible cognates with Dani on the Swadesh hundred word list." (ibid.) I am very reluctant in granting lexicostatistical findings any basic value, if they are not confirmed and sustained by the reconstruction of a proto-grammar and if the percentages fall below a certain level. The percentages I have given for the Mek languages correspond positively to the essential identity of the morphological and syntactic features of all Mek languages, and all deviations concerning the phonological shape of the words can be explained by clear lautgesetze and general trends in the development of the phonological systems (cp. above section 1.2). I want to give here some more general reasons and some arguments perhaps valid only for the Mek languages for explaining why I refrain from any new calculations at the moment.

(1) Most of the authors agree that genetic relationship cannot be based solely on lexicostatistical evidence, but that it has to be based on typological features as well. But the arguments of the latter type are sometimes very inconclusive, because no difference is made between implicational universals, typological and areal features and such features that can be assigned by way of reconstruction to the proto-language, e.g. the predominance of suffixing said to be characteristic of the Trans-New Guinea Phylum languages (see Wurm & Voorhoeve & McElhanon 1975: 301 – 2) is a feature widely met in all languages of the SOV type; perhaps it is a universal and does not tell anything in favor of genetic relationship.

(2) Sometimes some widespread typological features are supposed to corroborate the assumption of a genetic relationship. Among these features are (a) "a covert noun-class system denoted through sets of classificatory verbs", (b) "an overt two-gender system manifesting itself in pronouns, adjectives and noun and verb markers", (c) the "presence of special sentence-medial verb forms...with identity and non-identity of the subjects of the medial and the final verbs mostly indicated by separate forms", and (d), finally, the presence of "one bound
subject marker indicating two or several different persons, especially the second and third persons non-singular" (ibid.). Logically, the absence of these features cannot prove any linguistic relationship. Arguments of the kind "some languages show these features, none of them do not" are of a very limited value; they presuppose what should have been proved by them, namely the genetic relationship. None of these features is present in the Mek languages; thus no positive proof for the inclusion of them into the Trans-New Guinea Phylum is given by arguments of this kind. Again, to say that these languages are of an aberrant type presupposes what can only be established by the real presence of shared features, namely the genetic relationship or whatever relationship there may be.

(3) In view of the sometimes inconclusive arguments based on the presence or absence of typological features I would like to stress the divergence of some features. Even a careful comparison of the verbal complex of the Mek languages and one of the Ok languages, Telefol, yields the following main differences, though according to Healey and Voorhoeve (see above) the Mek languages have their nearest relationship in that family. Telefol has different morphologically defined verbal stem classes for intransitive, benefactive, non-benefactive, and motion verbs; these categories are not morphologically manifest in the Mek languages. Telefol has object person prefixes, Mek has none, object pronominals being infixed. Telefol makes a difference between aspect and tense suffixes; Mek has aspect infixes (with tense connotation). Telefol has a negative suffix, Mek none. Telefol has subject person suffixes, tenses and modes are characterized by different sets of person suffixes in Mek. Telefol makes use of auxiliaries, Mek does not. On the other hand the Mek languages seem to be characterized by composite forms of the verb (see section 2.2.1.2), for which there is no equivalent in Telefol. There are sentence medial verb forms in Telefol, none in Mek. As long as there is no model for explaining differences of this kind, I suspect that there is a lot of borrowing, areal and sprachbund phenomena in the shared vocabulary. This argument leads to the next point.

(4) Let us assume that a, b are languages of one family and A, B languages of another one and that the geographical distribution is such that b and A are neighbouring languages and that a and B are without immediate contact. Maybe there will be some borrowing between b and A, while none will occur between a and B. I believe that this exactly is the case between the Mek and Ok languages, where a are the western dialects, b the eastern ones, A those languages of the Ok family geographically nearer to the Mek area and B those more distantly situated. In the following I will prefix a, b, A, B to real language names according to the above definition. Compare the following items:

'small, little': a Sipo metek, b Ok Bab yambul, A Okbi (= Ngalum) yambul, B Telefol katib.

'blood': a Eipo (and all other a) jning, b Tanime (and all other b) yabyo, A Okbi yap, B Kauwol kaim.

'dog': a Eipo kam (and all a and b), A Okbi kayam, B Ninggirum nongop.

'foot, leg': a Eipo (and all other a and b) yan, A Okbi yon, A Kauwol yap, B South Kati kondo, B Miannin sikir, sakar.

My Ok data come from Voorhoeve (1975:97-8); his wordlists contain maximally 40 items. With more data at hand perhaps there will be a chance to give more proofs of this kind of language family chaining, which would seriously complicate lexicostatistics. The general argument to be derived from this distribution is, as I believe, inevitably this that we cannot compare the vocabulary of single languages of different families, but first of all we have to reconstruct the proto-vocabulary of one family, and secondly we may compare two or more similarly reconstructed vocabularies.
Comparisons based on only two or three languages of one family risk being erroneous. Thus McElhanon & Voorhoeve (1970:41) include Nalca, Korapun and Kosarek kal 'tree' and Nalca pok 'bark' in their interphylic series of cognates 'skin, bark'.

But throughout the remaining area of the Mek languages the genuine word for 'skin, bark' in all languages east of Nalca is bol, while Nalca pok corresponds to bok in all other languages. Nalca pok, then, is due to recent phonological and semantic developments. Furthermore the authors rely heavily on initial p of Nalca pok for their reconstruction, but this should correspond to initial b in proto-Mek; kal is found in Eipo too, meaning 'sickness (where the skin is peeling off)'.

But as this sickness is very uncommon in the highlands and as the Mek people might have met speakers of other languages in the lowlands, where this sickness is more frequent, kal can be a borrowing. kal 'tree' and pok 'skin, bark' have to be excluded from the proto-Mek vocabulary. With regard to language family chaining as proposed above, kal may come from the Dani languages in the west, e.g. Upper Pyramid ek akapola, Jalimo ek akap 'bark' (where e and a mean 'tree'), Upper Pyramid nakato, Jalimo nakap 'my skin' (data from Bromley 1966:305-6).

Last but not least, the mere feeling that the Mek languages are a member of a wide range of languages in Irian Jaya and Papua New Guinea can be emphasized by Wurm's reconstruction of three different sets of pronouns, the first of them "constituting a typical Trans-New Guinea Phylum characteristic" (Wurm 1975:192). The characteristic base consonants of set I are (ibid:194):

\[
\begin{align*}
\text{ag} & \ 1 \ n \\
2 & k \sim \ g \sim \ ny \\
3 & y \sim t \sim d \sim r \sim l \sim s, \ Vk \ (\sim g \sim -y) \\
\end{align*}
\]

Cp Mek:

\[
\begin{align*}
\text{pl} & \ 1 \ n \\
2 & k \sim g \sim ny \\
3 & y \sim t \sim d \sim r \sim l \sim s, \ Vk \ (\sim g \sim -y) \\
\end{align*}
\]

\[
\begin{align*}
\text{Chart of Consonants} \\
\text{unvoiced} & \quad \text{voiced} \\
\text{bilabial} & \quad \text{p} & \text{t} & \text{c} & \text{k} \\
\text{lateral} & \quad \text{b} & \text{d} & \text{g} \\
\text{labiodental} & \quad \text{f} & \text{s} \\
\text{alveolar} & \quad \text{w} \\
\text{palatal} & \quad \text{y} \\
\text{velar} & \quad \text{n} & \text{ng} \\
\end{align*}
\]

\[
\begin{align*}
\text{Chart of Vowels} \\
\text{high} & \quad \text{ii} & \text{uu} \\
\text{front} & \quad \text{i} & \text{u} \\
\text{back} & \quad \text{a} \\
\text{low} & \quad \text{a} \\
\end{align*}
\]
I will comment only on those symbols which are not self-explanatory either for the linguist or for the Indonesian or English reader:

/p/ is an unvoiced, bilabial, labialized plosive with voiceless release occurring only word finally [p'w'. The letter p may be a stand in for an increasing number of Indonesian borrowings with /p/.

/k/ [k, kʰ] between vowels can be realized as [x] or [ɣ]. Cp. na ka [na'ka] 'my friend, my relative', sakuk [sa'kuk] 'he (she, it) fell'. In front of r in a word k is spoken with voiceless release, cp. bukrak [buk'ra:k] 'the two sit down'.

/b/ [b] occurring syllable initially, [p] occurring syllable finally. It is realized with voiced release in front of r in a word, cp. eibrak [eib'ra:k] 'the two see'.

/w/ is a bilabial voiced fricative [β]. Occurring word finally after /k,m,n,s,t/ it indicates labialization with voiced release of the preceding phone, cp. ame ['ame] 'tarō' and amwe ['amwe] 'tail'.

/g/ is a voiced palatal fricative [], which is written according to the Indonesian alphabet. For the same reason the consonant cluster /j/ or palatal /t/ are written c.

/r/ is a flapped alveolar vibratant never occurring word initially [r].

/ng/ is a velar voiced nasal [ŋ].

All alveolars with the exception of /s/ tend to be flapped if they occur between vowels in a word.

/o/ represents [o] in open, [o] in closed syllables.

/e/ represents [e] in open, [e] in closed syllables. It is [e] if the immediately following or preceding syllable has the main stress of a word.

/i/ is realized as [i] and [u] as [u] in closed syllables. Wherever [i, u] come to stand in open syllables due to morphological alternations, they represent [i] and [u].

/i/ and /uu/ represent [i] and [u]. uu tends to be fronted by some speakers. This fronting is obligatory in the sg 3 of the hortative-deliberative, cp. mabluul [ma'blul] 'he may be sleeping'. Though most of the occurrences of ii and uu can be explained by underlying [i, u] being heightened through the position in open syllables, there remain some instances of a clear opposition between [i, u] and [i, u], which justify their different phonemic status, cp. dinmol 'he is eating', and dijinmol 'he is seeing', kune 'bark (of a tree species)' and kuune 'shadow'.

Stress occurs in two syllable words (1) on that syllable which has more satellites, cp. bikle ['bi'kle] 'he knows' and blisiik [bi'si:k] 'way, direction'; (2) it does not occur word finally in open syllables after consonant clusters, cp. bilyam ['bilyam] 'you shall go' and bilye ['bilye] 'going'. Where these criteria do not work, e.g. in binmol 'he is going', the placing of the stress depends on the intonation patterns of the utterance. Words of more than two syllables can be traced back to the two basic rules.

In most cases stress co-occurs with a high rising tone. But -for a small subset of the nouns, all of which are deverbal derivatives, this rule does not apply, cp. fokoa [t'okoa] 'sexual intercourse' and fokora [t'okora] or t'okora? 'whistling', where stress and tone are dissociated. Instead of writing or indicating the glottal stop, which seems to be at the origin of this high rising tone, words like fokoa shall be marked by /', because the same symbol can be used in all other cases where the indication of stress (occurring with high rising tone) seems to be appropriate.

2.2 Morphology

The reader may compare the following utterances:
larger groups and what their functions are in a clause. Finally, some common clause patterns and clause chaining are illustrated.

2.2.1 Verb morphology

The general linear structure of the verbal complex is:

(proclitics) stem(stem) (tense-aspect-infix)
(derivational suffix)
(object pronouns) tense-person-suffixes (enclitics)

2.2.1.1 Proclitics

These are either directionals (see Section 2.2.5) or other deictics, e.g. a- 'here' in a-binmal 'he is going here', te-
'to back' in te-bobnamalam 'you will give it back'.

2.2.1.2 Stems

Stems have the structure cvc-, the second consonant being either -b- or -k-. Without any tense-aspect-infix and with one of the tense-person-suffixes they form the punctiliar aspect, e.g.

niinya eibse  
man see=sg-1-past
I saw the man (once)

Some petrified and irregular forms of van- 'to come' and bin-
'to go', e.g. vakcobus 'having come' or bikbik- 'to run', seem to suggest that these verbs originally ended in -k-; nowadays the punctiliar aspect is expressed without stem final consonant, e.g. vase 'I came' or bil 'he goes (just now). The replacement of these stem final consonants by -n- means repeated or continuous action, op.

Manbol omsik  
Manbol hit (or kill)=ma-infix-pl-3-past
They killed Manbol
me tokwe onmal  
child earth hit=ma-infix=sg-3-present
The child is hitting (repeatedly) the earth/on the earth.
This -m- has become fixed in most usages of 'to come' and 'to go'.

Two or more stems may be combined. The whole range of syntactic and lexical functions of this formation cannot be described in this paper. They yield either new lexemes or they assume syntactic functions. The nonfinal stem changes its stem final consonant into -1-, e.g.

kelape sek kwelbinmak
woman water scoop=go=ma-infix=pl-3-present
the women fetch water

where kwel- derives from kweh- 'to scoop, create, originate from'.

maps diltekmaseak
boy see=stand=ma-infix=us=pl-3-present
the boys are standing (there) in order to look at us.

dil- derives from diib- 'to see, look'. The second stem is tek- 'to stand'. The combination of two or more stems is quite common, e.g. ketinge-ton wale-ton boldeliilbalamak 'sun=and moon=and give=put=collect=go=am-infix=pl-3=habitual/sun and moon gave it, put it down, collected it and went' (they gave... the victuals to the first men). The following stems are combined in the verbal complex: bob- 'to give', dib- 'to put, to give birth to, to die', liib- 'to put into a net bag, to collect', and ban- 'to go', ban- having changed to bal- in front of the infix -am- (see section 2.2.1.3). I believe that this kind of stem chaining is a characteristic feature of the Eipo language.

The stem may be expanded by some derivational affixes, among them -a- and -rob- both having causative meaning, e.g. teleb-robmal 'good=causative=ma-infix=sg-3-present': 'to mend, repair', biki-akmin 'know=causative=am-infix=you=sg-1-present': 'I have made known to you (you have learnt from me)'.

2.2.1.4 Infixed pronouns

These have the following form and meaning:

-nV- 'me, for me, toward me'
-kV- 'you, for you, toward you'
-sV- 'us, for us, toward us'

where V stands either for /i/ or for the vowel of the following syllable. With transitive verbs these pronouns have direct object function, with intransitive verbs indirect object, benefactive, or locational function, e.g.

kelape Talim vanmaal
woman Talim come=ma-infix=us=sg-3-present
The woman comes to us from Talim

yo obamai
Tree hit=ma-infix=me=sg-3-present
A tree has just now hit me

Another set of pronouns is used obligatorily in the imperative
which lacks the tense-person affixes: -min, -kin, -sin 'for me, you, us; in my, your, our interest', e.g. bukmin 'sit down (in my interest)', and hobnusin '(you will) give to us.'

2.2.1.5 The tense-person affixes

Together with an appropriate tense-aspect infix the first set forms either the present or the future tenses:

\[
\begin{align*}
\text{sg} & \\
1 & -e, -ne & \text{dual} & 1 & -nam & \text{pl} & 1 & -ab \\
2 & - TAM & 2 & -rum & 2 & - lum \\
3 & -le & 3 & -\text{vak} & 3 & -ak \\
\end{align*}
\]

e.g. bikle 'he knows', bikmalam 'you are knowing', biknam 'we two will know (it).'

The set for the near past is:

\[
\begin{align*}
\text{sg} & \\
1 & -\text{mum} & \text{dual} & 1 & -\text{mum} & \text{pl} & 1 & -\text{mupe} \\
2 & -\text{mum} & 2 & -\text{marum} & 2 & -malum \\
3 & -\text{mo} & 3 & -\text{marunge} & 3 & -\text{minge} \\
\end{align*}
\]

The set for the far past is:

\[
\begin{align*}
\text{sg} & \\
1 & -se & \text{dual} & 1 & -\text{num} & \text{pl} & 1 & -\text{nupe} \\
2 & -\text{tum} & 2 & -\text{rum} & 2 & -\text{lum} \\
3 & -\text{uk} & 3 & -\text{rik} & 3 & -\text{lik} \\
\end{align*}
\]

The set for the hortative-deliberative is:

\[
\begin{align*}
\text{sg} & \\
1 & -\text{nyam}, -\text{nuum} & \text{dual} & 1 & -\text{nyanam} & \text{pl} & 1 & -\text{nyab} \\
2 & -\text{iyam} & 2 & -\text{ruum} & 2 & -\text{tuulum} \\
3 & -\text{luul} & 3 & -\text{ruurak} & 3 & -\text{nvak} \\
\end{align*}
\]

The second person may form a polite imperative, e.g. buklyam 'could you sit down.'

The set for the ablative or imaginative is:

\[
\begin{align*}
\text{sg} & \\
1 & -\text{tine} & \text{dual} & 1 & -\text{tineve} & \text{pl} & 1 & -\text{tesibe} \\
2 & -\text{tum} & 2 & -\text{tum} & 2 & -\text{lum} \\
3 & -\text{to} & 3 & -\text{fering} & 3 & -\text{ting} \\
\end{align*}
\]

Together with perfective -am- or a past tense it forms the conditional, e.g. diatintye 'I could have eaten (it)' with verb stem dib- 'to eat', or

min \_ wanomote \_ teleb

early come near-past-sg-3=ablative-sg-3 good

If he had come earlier it would have been alright

2.2.1.6 Some comments

No indication of the possible cooccurrences of the different stem forms, infixes, and tense-person affixes can be given here. One of the fascinating aspects of the Eipo verbal complex is that even those combinations can be found that seem to be impossible. Thus we find asik bulamnamaluul 'village stay=perfective future=ma-infix=ablitative-sg-3' (with stem buk 'to sit, stay'). A necessarily bad translation of this complex is 'he, having stayed at home, perhaps he will be staying at home.'

The combination of the stem ending in -1- together with perfective -am- and the 3rd singular or plural of the tense-person affix set I forms general statements and descriptions, e.g.

\[
\begin{align*}
\text{kwit} & \text{ ma motokwe dub malamle} \\
\text{cassowary bird mountain top live=perfective=sg-3-present} \\
\text{The cassowary lives usually on top of the mountains} \\
\end{align*}
\]

2.2.1.7 Enclitics

These seem to modify only the verbal complex, and are -cuk 'again' and -tok 'only', e.g. bikamme-tok 'I have known only (this).'

2.2.1.8 Participles

Participle-like forms are the verbal stem plus one of the tense-aspect infixes, e.g. malam 'having slept' from mab- 'to sleep, stay, live' and perfective -am-.

2.2.2 Nouns

Nouns are not inflected. The productive processes of forming new nouns are:

(1) Serialization of two or more nouns joined under one main stress, e.g. mek katum 'bank' from mek 'river, water' and katum 'cheek';
30.

(?) Verbal stem in -n- plus -a, e.g. dina 'food' from dib- 'to eat';

(5) Labialization of the verbal stem or of the verbal stem plus one of the tense-aspect infixes, e.g. yukwe 'young plants' from yuk- 'to plant'; or (me) boomwe '(child) giver: uterus' from bob- 'to give' (the original form should be boomwe, see section 2.2.1.3).

2.2.3 Adjectives

There is a small set of adjectives like teleb 'good', malve 'bad', metek 'small, little', wik 'big, many', biit 'white', merin 'black'. They modify nouns and are usually placed behind them; if they are emphasized, they may be placed in front of them.

2.2.4 Pronouns

The pronouns are:

na I, me, my
an you, your (sg)
el he, she, it, him, her, his, its
nun we, us, our
angun you, your (pl)
sik they, them, their

In most cases a postposition is placed behind them if they assume subject emphasizing or object function, e.g.

an-sik boynlam
you-too (or and) go=b=1-infix=sg-2-present
you, too, are going

kalinga an-sik
sun you-too (or and) create=am-perfective=sg-3-past
The sun has created you also

Placed in front of a noun they have possessive function, e.g. na wa 'my garden'. Placed in front of nouns referring to body functions, feelings, or to the state of knowledge they form an

important set of utterances in everyday conversation, e.g. na akwe 'my laughter: I am laughing', na eile 'my fear: I am afraid (of)', el walwal 'his ignorance: he does not know', sik kele wik 'their knowledge big: they know a lot'.

2.2.5 Locational deixtics

Locational deixtics are formed by an- 'here', ei- 'up there, up hill', uu- 'down there, down hill', or- 'across, across the valley'. They are either prefixed to verbs (see Section 2.2.1.1) or to nouns, e.g. uu-anjiik 'the village down hill'. Placed in front of -tam 'side' they point out to a direction, e.g. biajiik eitam 'the way up hill'; placed in front of -tiba they show an object in a resting position, e.g. wa eitiba 'the garden (is) up hill'.

2.2.6 Postpositions

There is a small set of postpositions which at the same time function as clause final conjunctions:

-de 'pronominal subject marker, and'
-ton 'and, also'
-sik 'pronominal subject or object marker, to, at the side of, at'
-tam 'side'
-sun 'day, when'
-kankan 'among, between'
-argye 'because, origin'
-berry 'subject marker'.

Examples:

Talin-tam bimnal
Talin-side go=ma-infix=sg-3-present
He is going to Talim

Kam bindobmatal-tam bikne
dog go=away=ma-infix=sg-3-present=side not know=sg-1-present
I don't know where the dog has gone
have to repeat the noun nun wa uu-wa 'our garden is the garden down hill'.

(3) (pronoun) noun (pronoun) noun

* e.g. na mam el sii 'my uncle his name', niiye sik do 'man their egg (that is, the first men)'. Theoretically this construction is recursive.

I do not mention here again the postpositions. The negation gume 'not' may be placed behind all constructions so far mentioned. It is placed in clauses with finite verbs in front of the verb.

2.4 Notes on syntax

In the preceding section I have described the words, their internal structure, and the ways they form larger groups (phrases). We can now look at the building up of clauses and complex sentences, which is a matter of mere arrangement or word order in the Eipo language.

2.4.1 Equational clauses

They have the following general structure:

```
((noun phrase) (noun phrase))
   (pronoun) (delictic) (adjective) (adverbial) (participle)
```

We can label the first group the head, and the second group the attribute of an equational clause. Only one element of one of the two groups has to be realized to form an utterance, e.g.: me 'child' or 'that is a child'. Some unusual patterns are:

* eitam gume balam 'up hill is our side', metek telet 'small good', the exact meaning of which depends on the situation. Here are some other examples:

* eitam gume balam
  * up hill not having gone
  * Up hill one usually does not go
mak kilape sik dina
bird woman their food
Birds are the food of women
na metek mape gum na merkem
I small boy not I clever
I am not a small boy, I am clever
e1 yuwe gum
He language not
He is a taciturn person

are 'that is, is' may be the connective between the head and
the attribute. I believe that are derives from, or is etymologically
connected with, -arve 'because, origin of'. If it were
a genuine verbal element one should expect it to be placed at
the end of a clause.

im are sal, tokwe are kil
sky is man earth is woman
The sky is male, the earth is female
motokwe dub mak are kwending ma
mountain top bird is creation bird
The bird on top of the mountains is a mythical bird
tekyvonok tekkyvonok are eipenang wine arena gum
single single is Eipo=people way giving not
to give bit by bit is not the way of the Eipo people

2.4.2 Clauses with finite verbs
The overall structure and the linear arrangements of the
elements of the clause may be summarized in the following chart:

<table>
<thead>
<tr>
<th>Function:</th>
<th>Position 1</th>
<th>Position 2</th>
<th>Position 3</th>
<th>Position 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filled by:</td>
<td>noun phrase</td>
<td>proper name</td>
<td>noun phrase</td>
<td>pronoun</td>
</tr>
<tr>
<td></td>
<td>noun phrase</td>
<td>noun phrase</td>
<td>pronoun</td>
<td>deictic, proper name</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>adverbial</td>
</tr>
<tr>
<td>Position 5:</td>
<td>Function:</td>
<td>predicate</td>
<td></td>
<td>verbal complex</td>
</tr>
</tbody>
</table>

Only position 5 is filled obligatorily. Reference to
position 1 can be given by the tense-person affixes only, to
positions 2 and 3 by the infixed pronouns only.

Intransitive verbs typically induce position 1 and 4 to be
filled and position 2, too, if carried over into the verbal
complex as infixed pronouns. Position number will be prefixed
in the following examples:

(1) ketinge (5) banimal
sun go=ma-inf=present
The sun is going down

(1) akwe (5) ubamani
laughter become=ma-inf=me=present
Laughter is springing up for me/I burst out laughing

(1) kilape (4) larye-tam (5) yanmasil
woman large-side
The woman has come to us/for us from large

Transitive verbs typically induce position 1, 3, and 4 to be
filled, and position 2 only, if transferred into the verbal
complex and if position 3 is filled and not transferred into the
verbal complex.

(1) Berekto (3) wine (4) u (5) karuakmal
Berekto nut tooth crack=ma-inf=present
Berekto is cracking nuts with her teeth

(1) vo wix (4) kot-tam (5) othanuk
big tree big rock side
hit=ma-inf=me=past
A big tree hit me at the rocky slope

(3) wine (5) (2) karuakmal
nut crack=ma-inf=you=present
She is cracking nuts for you

Ditransitive verbs typically induce position 1, 2, 3 to be
filled. However, in all genuine examples one of these positions
is transferred as tense-person-affix or infixed pronoun into the
verbal complex.

(1) Fatore (2) Ningke (5) arebnul
Fatore Ningke give=future-inf=present
Fatore is going to give (it) to Ningke
(2) Ningke-ak (3) ya (5(1)) arebmo
    Ningke-to axe give=sg-3-near past
    He has given the axe to Ningke

    Noun phrases in position 4 typically cooccur with the post-
    positions -ak, -tam, -arve, position 3 with -ak, if position 2
    is not filled, position 2 with -ak, and position 1 with -arve
    and -berve (see Section 2.2.6).

    Word order is not as rigid as the chart suggests. Even
    proper names of position 1 and 3 can be permuted:

    Bongto Babial dabuk
    Bongto Habial take=sg-3-far past
    Babial took Bongto by force

    The first name is a woman's name, the second one a man's, and
    men take women by force, not vice versa.

    Noun phrases giving the reason of an action are usually
    found in extraposition, e.g.

    kwane fatan Bereko wa albeit
    sweet potato lack Bereko garden go=sg-3-deliberative
    Because of the lack of sweet potatoes, Bereko might have
    gone into the garden

2.4.3 Complex sentences.

    Equational clauses and/or finite verb clauses can simply be
    juxtaposed without indication of their logical relationship, e.g.

    bulonmab van tabnili
    sit=be-continuously=ma-infix=pl-1-present footh=me=sg-3-
    present
    We are sitting all the time, my foot has gone to sleep

    Their relationship can be specified by one of the conjunctions:

    malay marabik-arve bane male malve balame
    arrow shoot=pl-3-far past=because going bad go=perfective=
    sg-3-present
    Because they shot (him) with an arrow he is going (with) a
    bad walk

    -yura and -buk suffixed to a finite verb specify the temporal
    relationship of two clauses, e.g.

    make censal -yura aik bukmbab
    rain fall=ma-infix=sg-3-present=yura hut sit=ma-infix=pl-1-
    present

    While it is raining, we are sitting in the hut

    saboka areblam -buk Alamde bil
    tobacco give=sg-2-present=buk Alamde go=sg-3-present
    After having given tobacco (to him), Alamde goes

    A rough translation of -yura may be 'while', that of -buk 'after,
    and then'. The structure of the second example is also that of
    sentences, where English or Indonesian can use simple time ad-
    verbials, e.g.

    iniible -buk liisa kanye vanmaasiak
    growing dark=sg-3-present=buk spirit soul come=ma-infix=us-
    pl-3-present

    In the night (or: after dusk) the spirits come to us.

    Clauses can be subordinated to each other in such a way that
    the first one assumes those functions which the nouns or noun
    phrases or adverbials have in a simple clause. Such a clause
    can be the object of a higher verb, e.g.

    nilnve-ton yanmak tenebman
    man -also come=ma-infix=pl-3-present think=ma-infix=sg-1-
    present

    I think that some more men are coming.

    Other subordinated clauses can be explained as relative clauses.
    A relative clause modifies the noun of the higher clause; this
    noun is either the subject of the higher clause or the attribute
    of an equational clause, e.g.

    areblumalum ya mek sakuk
    give=ma-infix=sg-2-far past axe river fall=sg-3-far past
    The axe you gave (me) fell into the river

    Bongto dabuk kil
    Bongto take=sg-3-far past woman
    Bongto is a woman which one took by force

    In the following sentences the nouns -nang 'people', -tam 'side',
    and -sum 'day, time' are modified. These nouns are no longer
    free morphemes. The result of their grammaticalization may be
    that the original relative clauses develop into subordinated
    clauses that assume subject, locational and temporal (adverbial)
    functions.
Egwaia mabnamak-nang yale sii gum
Egwaia sleep=future=ma-infix=sg-3-present clan name not
The people who will be sleeping in the Egwaia have no clan's name
Ningke bukmal -tam na-ton buknamke
Ningke si=ma-infix=sg-3-present=side I -also si=nam-infix=sg-1-present
I will sit down where Ningke is sitting.
bilum -buk =sum me deibuk
go=sg-2-far past=after=day child born=sg-3-far past
When you had gone the child was born
A full description of these structures can only be given in another paper.
The finite verbs of all clauses but the last one can be transformed in such a way that the tense-person affixes are dropped, but the tense-aspect infixes, all markers of temporal sequence and postpositions are retained. Thus the sentence saboka areb-lam-buk Ailamde bil (see above) is transformed into saboka areb-uka Ailamde bil. -uka is an allomorph of -buk. Two other pairs of sentences will illustrate these changes.
niinye murubmak basam obnamak
man they=conclude=peace pig they=will=kill
niinye murub-yura basam obnamak
man concluding=peace pig they=will=kill
Dingerkon binnnamam tobnok arebnilyam
Dingerkon we=two=will=be=going knife you=will=give=me
Dingerkon bil-yura tobnok arebnilyam
Dingerkon going knife you=will=give=me
Going to Dingerkon you will give me a knife
Another transform of the last sentence may be:
Dingerkon binnnamin -yura tobnok arebnilyam
Dingerkon go=ma-infix=forme=yura knife you=will=give=me
When going in my interest to Dingerkon you will give me a knife
The subject of the non-final clauses can be dropped. I do not believe that there is only one way relationship between clauses with finite verbs and those not marked with the tense-person affixes, the result of the changes being manifold and presenting their own range of options to the speaker.
The chaining of clauses in the way just described is the technique the Sipo language prefers; simple juxtaposition and subordination are quite uncommon compared to this technique.

3. Conclusion
I will give three longer sample sentences to conclude. The first one is a chain of equational and verbless clauses typically occurring in daily conversation. It is the description of a mad man. The second one is a request in daily conversational style, too; but in addition, non-finite and finite verb forms occur. The last sentence contains these forms, too, but the style is that of telling stories and myths. Actually, it is a sentence out of a myth telling the deeds of the father of mankind.

yupe walewal, niinye kekena are gum, el yupe tonok,
language not=know, man hearing is not, his language only,
niinye urasin walewal, wa walewal, el nonge urasin taleh,
man face not=know, garden not=know, his body face good,
kanye tonok gum,
soul only not

(He) does not understand language, (he) does not understand (other) men, but his own language only, he does not know man's faces, he does not know (his) garden, his body and face are good, the soul only is not (good).

Terban fafiilalye-sum-ak, aike bulamnamak,
Terban work=make=while=day=then, but sit=perfective-nam-inf=pl-3-deliberative
bohelan terkdongob-uka saboka arebnamkin
doors close=after tobacco give=nam-inf=you=sg-1-present
wynyam lam-buk an dina dibnam
say=perfective=sg-2-present=after your food eat=future=dual-1-present

While Terban is working, if one has stayed at home, maybe staying there, having shut the door, after you have said "I will give tobacco to you", we two will eat your food.
faliilal- composed of faliih- 'to work, to do work in the
garden' and ab- 'to do';  
-ye- another form of -vura.
bulammanyak from buk- 'to sit, stay, rest'; the 3rd person
plural of the deliberative can be translated with 'one, you,
obody'.

-niinye elii Firwe asik -dam valyura, mem ken
man father Firwe hamlet=near come=while, tabooed pandanus
bobyura, mem ken amoa bomlya, give=while, tabooed pandanus young plant give-perfective=while
kwarang bonmalva, beialyura, niinye amoa, 
fig tree give=ma-infix=while bring=while, man young plant,
niinye wik abik-oak yok lebuka-ab
bubu man many make=pl-3-far past=and then bone uncover=after=and
beialyura, niinye tub deibuka-ab-arve, deimaabmalva,
bring=while, man flesh put=after=and=because, put=live=ma-
berkilvura, ni gekelamin-bida,
infix=sg-3-present=while, dawn=while, well listen=make=me=at=an
berkilvura, deimaabmalvina,
-end, dawn=while put=live=ma-Infix=sg-3-present=while=and,
Barikye asik vangamalme.
Barikye hamlet come=do=perfective=sg-3-present.

Men's father coming near the hamlet of Firwe, giving the tabooed pandanus fruit, having given the young plant of the pandanus
fruit, he is giving the fig tree, and bringing, men's young plant, they made many men, bringing the bare bones, and because (he)
had put the flesh also, he is founding, in the morning,
well listen to me up to the end, in the morning, he was really
founding, he was making his way to the hamlet of Barikye.

In this text the form of -vura is -lyura.

bobyura from bob- 'to give', -am-, and -lya instead of -ye in
everyday language.

-oak from de 'and' and -ak.

-ab another form for 'and'.

gekelamin from gekeb- 'to listen, understand', with stem final
-l-, perfective -am-, and -min.

deimab- from deib- 'to put, give birth to, die' and mas- 'to
sleep, rest, live'.

-vine composite form of -de 'and' and an emphasizing particle.
yangal- from yan- 'to come' and ab- 'make'. I have no explana-
tion for stem final -ng-.

Appendix

I will give here three wordlists of the Mek languages, one
of the western group (Kosarek), one of the eastern group (Bime),
and one of the Eipo language in the center of the Mek language
area. I will add a wordlist of the Kosare language, which, so
far, was not known. The transcription for Eipo and Bime is
phonemic, that for Kosarek is broad, and that for Kosare is
somewhat narrower.

I have modelled my wordlist after that of Bromley (1966:
305-6), which itself is an adaptation of the Swadesh wordlist
for the use of Irian Jaya linguists. However, I have changed
several items (which are underlined in the English list) for
several reasons, e.g. drink and eat, round and moon, skin and
bark, man and people are the same items in the Mek languages;
thus I have dropped the first item of these pairs and replaced
it by another one. leaf was difficult to elicit, because the
informants gave the proper name of the tree or specified the
state of the leaf (rotten, hairy, etc.) For similar reasons
mouth and red were dropped. The verb forms are not always in
the imperative. I have tried to elicit a minimum of information
concerning the tense-aspect prefixes and the tense-person affixes.

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</tbody>
</table>
## English | Eipo | Bime | Kosarek | Kosare
---|---|---|---|---
woman | kilape | nerape | kalabo | ńum’kasia
bad | malye | mali | mali | num-’si
headwaters | fyu | pu | lu | -
river | (see water) | walewal | walewal | bišenguntu
not know | num | num | mən | ńakrekri
air, sky | iim | im | im | nubo
net (bag) | aleng | alen | ak | ta
pig | basam | besam | pam | pi

### Notes
1. Publication No. 14, Man, Culture, and Environment in the Central Highlands of Irian Jaya. Research Project of the German Research Society.
   1. I would like to thank the initiators of this research project, K. Belfrich and G. Koch, Berlin, and the Deutsche Forschungsgemäßhanschaft who sponsored research in Irian Jaya. My thanks are extended to the Lembaga Ilmu Pengetahuan Indonesia, Jakarta, to the Universitas Cenderawasih (Abepura, Irian Jaya), the Missionary Aviation Fellowship, the Un evangelized Field Mission, and all others who assisted me. The linguistic findings would have been impossible without the constant and stimulating discussions with W. Schieffenhövel, to whom I give my best thanks.
2. For other maps see Schieffenhövel (1976:264) and Voorhoeve (1975a:69).
3. In the light of my notes of the surrounding dialects I have found only two mistakes: malye is ‘not bad’ instead of ‘stone axe’ and kwa-ning is ‘sweet potato’ instead of ‘to eat’. Doubtful items are ate ‘hand’ and da-boe-ning ‘casuawary’, the first meaning probably ‘this here’, the second ‘what belongs to the north’, that is the area where casuawaries are still living.
4. The calculation is based on my own material except for Goliath (de Kock 1912) and Korapun and Nipsan (Voorhoeve 1975a:116-7).

5. For formation of other interrogative pronouns see Section 2.2.7. The form una is from Louwerse & van der Wilden. The form I elicited in Bipomok is uno [ono].

6. Data of the Ok languages are from Voorhoeve (1975a:97-8) and Healey (1965a and b).

7. For the sake of readability I will use only the following abbreviations: sg (singular), pl (plural), 1 (first person), 2 (second person), 3 (third person).
   The first translation follows the Eipo text word by word. = indicates a new morpheme within a word. Explanations and indications connected by - all refer to one morpheme. Thus English (he) sings would be rendered as sing-ag-3-present, where = indicates the presence of two morphemes, namely sing and -g, and the indications connected by - all refer to the morpheme -g. In brackets or with the help of / alternative translations, remarks or additional explanations are given. In charts and formulas brackets ( ) indicate that the element is optional. Elements without any bracket are obligatory. Elements written one below the other and included in { } exclude one another. In some later translations not all grammatical indications are given.

8. Text recorded by W. Schieffenhövel.

### References
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THE EIPO, MEMBERS OF THE MEK GROUP IN THE HIGHLANDS OF IRIAN JAYA

A Short Introduction

Wulf Schiebenhövel

Ikhtisar:


Scientists of several German universities and institutions, in cooperation with the Universitas Grendawasih, LIPI, and other Indonesian partners, carry out an interdisciplinary research project in the highlands of Irian Jaya. It was initiated by Dr. G. Koch and Dr. K. Helfrich of the Museum für Völkerkunde at Berlin-Dahlem and is sponsored by the German Research Society as Priority Programme "Man, Culture, and Environment in the Central Highlands of Irian Jaya."
The research centers around the southern valley of the Bipomek River, at approximately 140°01' eastern longitude and 4°26' southern latitude. With regard to administration it belongs to the Keccatan Kuma and the Kabupaten Jayawijaya, of which Wamena is the administrative center. The Bime, Tanime, and Bipomek valleys constituted the epicenter of the two major earthquakes of June 26 and October 26, 1976. As in other areas hit by earthquakes the Eipo have not left their homeland but built new villages and gardens.

In accordance and with the support of Indonesian authorities, Indonesian colleagues, and missionary societies, the five members of the first group set out on a six day march from Bime with a number of carriers. After a friendly reception by the Eipo they established themselves in a camp-tent at first; later they settled into specially erected huts close to some villages (see map). Thanks to the great initiative of the Eipo people and to the help of the project-assistant Tayniyak, it was possible to build an airstrip within 12 months, which since July 1975 until its destruction by landslides caused by the severe earthquakes allowed single-engine planes to land and take off. In this manner the major part of transportation was managed.

Because of the linguistic and cultural homogeneity of the people who live within the region specially marked on the map, the term Mek has been suggested as a common designation for the people of this region. The term Mek has been chosen since no native name exists which designates the geographical region in question and its population, and because it is analogous to the term Ok, which has been coined for the neighbors of the Mek in the east. There, Ok (in some regions pronounced Wok) means 'water, river'. The same meaning adheres to the Eipo word mek. Formerly employed terms, mainly for the purpose of linguistic classification of these languages now comprised by me under the term Mek group, are 'Goliath', and 'Kimyal' which are either based on European nomenclature or are correct only for groups living at the periphery. The population around the mission station Korapun should, according to Bromley, also be ascribed to the Mek group. A comprehensive account of the present stage of linguistic research is given by Volker Heeschen.

Neighbors of the Mek people are: to the west the Yali (spelled also Yalé) who represent the easternmost Dani group. Language and culture of the Yali show some congruencies but also clear distinctions with the Mek group. East of Mek territory live the Ok people, whose material culture shows similarities with the Mek, but whose social structure, however, differs in some respects. Their language is different from that of the Mek. To the south the situation is not yet sufficiently investigated. It is, however, likely (also according to information given by Jan Louwers who saw several tree houses when flying over the area) that a distinct population lives in the hilly belt between the swamps inhabited by the Citak, the Koroway, and other groups north and northeast of the Asmat and the mountains, the homeland of the Ey (or Hei) dwelling at the upper Steemoom River (Eyme) and the Sain, west of the latter, who represent the southernmost Mek groups.

Volker Heeschen and I, in which may have been the first encounter, have contacted some women of the northernmost Mek group in the village of Kosare, south of the Idenberg River. The Kosare, who belong to the Idenburg River culture group, trade goods for wifes from the people they call the Sirkei, who live in the northern slopes of the central mountain chain and speak a dialect quite similar to that of the Tanime/Bime valleys.

It can now be stated that the population between the Ok in the east, the Idenberg cultures in the north, the people living among the southern slopes of the central cordillera in the south, and the Yali in the west form a single linguistic and cultural group which covers a surprisingly large area (see map). Findings
of musicological research carried out by A. Simon and J.E. Royl back this statement. The interior of Irian Jaya is thus more uniform than may have formerly been thought.

The territory of the Mek people was entered for the first time in the course of the extraordinary south-north crossing of Irian Jaya by Pierre Gaisseau's film expedition. Gaisseau visited the region a second time in connection with an Indonesian military expedition, whose members descended by parachutes into the southern Eiposek valley. The Eipo people remember the Indonesian-French parachute expedition well and have very friendly words for their strange visitors, who have given an excellent account of their expedition, their contact with the local people, the words they learned of the Eipo language, and their geographical, medical, and ethnographical investigations in the "Laporan Expedisi Ilmiah Lembah X." I am sure that the good memories the Eipo people had of these visitors helped them to receive the scientists in such a friendly way. We therefore thank Captain Tanjung, Doctor Bondan and the other members of the "rombongan" for preparing the Eipo people and their neighbors for visits from outside.

Besides that, some missionaries of the Unevangelized Fields Mission (UFM) crossed the Mek region. Due to these contacts as well as to trading of industrial products from neighboring valleys, where mission stations had already been established, the Eipo people already owned some western cultural goods, e.g. steel axes and axes, bush knives, white glass beads, and occasionally, small sheet-metal and plastic pieces as body ornaments at our arrival. The Eipo mode and view of life, however, despite these numerically very few signs of acculturation, was unaffected to such a degree as can hardly be experienced any more nowadays. The Eipo were extremely open-minded and communicative, even in such spheres which are elsewhere hardly accessible like birth-giving, sacred ceremonies, and mythology.

The Eipo and their neighbors are pygmies (medium size of males 146 cm according to E. Buchi's measurements) with light brown to dark brown skin and black curly hair; they match a type which is also found in other parts of the New Guinea Highlands. In spite of the scarce protein content of their daily food (women, girls, and non-initiated boys consume more small animals and also receive more animal protein due to taboos imposed on initiated males) the Eipo are a healthy and vital people. In comparison to the situation in other regions of Melanesia one would be able to describe the Eipo approach to life as pragmatic and realistic.

Most frequent illnesses of the Eipo people are: infected wounds, including arrow wounds as a result of fights; ulcers tropica, scabies, conjunctivitis, viral and bacterial infections of the intestinal and respiratory tract. Worms as intestinal parasites are common, though seldom pathological, an exemption being ankylostomiasis (hook-worm) which like tinea imbricata, yaws, and malaria, occur mainly in lower regions. A special clinical survey of the Eipo people was made by Horst Jüptner (Jüptner 1978), whose findings were similar. A clinical peculiarity is represented by the sex-specific morbidity rate in goitre caused by iodine deficiency. In contrast to other mountain areas, almost exclusively boys and men fall ill with the pathological enlargement of the thyroid gland, which occasionally develops to monstrous size in some grown-ups. The female population remains nearly completely unaffected. There are also very few cases of cretinism among the offspring of the Eipomuk valley. In the east (Tanime, Bime) and especially in the west (Diuwennua, Kosarek) the pattern of distribution is different; there goitre is at least as frequent in women as in men. Possible reasons for these special epidemiological findings are still being investigated. The dental research (G. Schieffenhövel) revealed: low to very low caries morbidity (according to WHO standards), forms
of caries subject to age, partly connected to enamel-dysplasia, frequent frontal crowding, mandibular prodentia (Angle class III) with obvious hereditary influence, as well as a high percentage of Leukoplakia of the cheek's mucous membranes. The fact that highland populations usually are more numerous than the ones in the lowlands is at least partly explained by the lack of many tropical diseases in the higher regions.

The southern Eipomek valley lies embedded between the slopes which run towards the central range (the frequently used pass to Larye is about 3700 meters, near peaks reach altitudes of more than 4500 meters), and less high chains which run transverse to the main range and which part the nearly parallel valleys of the rivers Nalomek, Eipomek, and Tanime. Up to an altitude of about 3500 meters the mountains are covered with forest. The bottom of the valley is formed by slopes descending comparatively gently to the Eipomek; its altitude lies between about 1600 meters to 1800. It is almost completely covered by secondary vegetation, a sign for a long period of cultivation. The gardens (wa), laid out evenly at very steep slopes (tabang wa) reach up to an altitude of 2200 meters. Cordyline plants (yurve) functioning as border indicators and landmarks divide the land into lots, which are handed down mainly in a patrilineal way. The Cordyline shrub also marks other important places like sacred places and the surroundings of men houses. The rain forest (yokan kan) adjoining the gardens is used for gathering wild growing food plants, for hunting, and as a reservoir of building materials. Temperatures lie between about 11-30°C, the annual rainfall amounting to about 5000 mm. 

The Eipo are gatherers and horticulturists; hunting and raising domestic animals (pig, basam) play inferior roles for nutrition, especially as a taboo on pork is imposed on about 2/3rds of the population. The dogs, resembling Canis hallstromil, are partly used for hunting. The villages (asik), inhabited by about 20-250 persons, consist of round huts (aik) with conical (kweklyya aruma) or span roofs (kaboe aruma). Every village contains at least one men's house (yoek-aik) where men and initiated boys stay most of the time. They have a more or less distinctly sacred character and serve as cult-center (see below). Women, girls, and non-initiated boys live in smaller family houses (diib aik) where space is often very scarce. 
15 Initiated men stay mainly for meals in the diib aik. At the outskirts of the village lie the women's houses (barve aik), where women stay during menstruation, for childbirth, and childbed as well as occasionally during severe illness. The women's houses serve also as the center of intra-feminine communication and interaction. 

The deceased are put up in bark and leaf shelters on trees close to the villages; in one case a corpse had been exposed under rocks. When the decay has come to an end, the skulls and occasionally other bones of the skeleton are removed and brought to dry places under overhanging rocks or into garden houses. The souls of the deceased return, according to Eipo conceptions, to the original villages of the respective clans; therefore the deceased are put up in such a way that the face is turned in the direction of those mythical places of origin.

Trading connections exist mainly to the east and south; they are strengthened by friendly visits (ninve bun, lit. people-bridge) and mutual partaking in feasts (mote, ninve lii). At such occasions frequently pork and occasionally hunted wild animals (mana) are donated. The latter are hunted with traps and bow and arrow during special hunting periods, lasting several weeks (mana lii) and are preserved by smoking.

Social organization comprises patrilineal exogamous clans (yala) which are traced back to mythical ancestors (sun
geding, moon wala, pig basam, snake kwatema, reptiles bal, and other animals), menhouse communities (yoeknang), initiation groups (kwit), age groups (kiklip), special friendships (wintomun), as well as play, work, and fighting communities.

Several clans have a large area of distribution. Yala of the Bipomex valley, the center of the Mek region, have also been found around Kosarek (Nabval and Mirinval). The Bipo could cover the distance between Bipomex to Kosarek within 4 days; at present there are no direct connections between Kosarek and Bipomex. It seems possible that single clans are represented throughout the whole Mek area. It is intended to further investigate these findings, important also in regard to historical migration movements of the Mek people.

Initiation (kwit) takes place for groups of boys which have reached an age of 3 to 15 years. The ceremony includes a gang-like alliance with joint hut-building (kwit aik) and instructions by grown-up men. The kwit group receives its own name, which commemorates certain incidents during the initiation days. The initiated (kwitnang) are allowed to enter men houses, and are obliged to keep rather strict food taboos, which are later loosened successively. A secondary initiation for grown-up men, as found among the Yali, has so far not been observed with the Bipo. Noteworthy is the similarity of names for boys' initiation in both areas, wit respectively kwit.

Marriages take place after preceding agreements (kaibnamak and other verb forms) or by abduction of a woman who has agreed to the partner change (dohnamak and other verb forms). In the latter form previous love affairs are of great importance. Not only in such abduction-marriages, but frequently also in pre- and extra-marital relations women play an active role. They express their affection in love songs (kolubkolub dit and other names). The simple marriage ceremony is celebrated with a common meal; the relatives of bride and bride-groom exchange presents. Most frequent is monogamy; besides that there is polygyny and very rarely polyandry. In one case, observed at the beginning of September, 1975, in the village Talim, three young women from the village Marikla had been given to leading men of Talim. This was probably an attempt to oblige Talim's warriors to neutrality in the ever-smouldering conflict between the villages Munggona, Kwarelala, Malingdam, and Bingerkon on the one side, and Marikla, Bingkon and Imde on the other side. Geographically Talim lies somewhere in the middle of these hostile village groups and had only once (in April, 1975) participated in a war raid as ally of the Munggona group.

In marriage arrangements, in the kwit ceremony and in regard to gift exchanges, the mother's brother (sam) plays a particular role. In addressing and in mentioning the real name (diibe si) of the mother's brother, mother-in-law and other persons, taboos have to be observed; in such cases a second name (fuurume si) is used. Passing over (kabina) lying or sitting persons is controlled by special taboos, which are also valid for the passing over objects (e.g. arrows).

Birth control is exercised by different mechanisms, e.g. late sexual contacts, particularly on the men's part (generally not before the 20th year), post-partum coitus taboo for the whole period of breast feeding (comprising a period of about 2½ years), and infanticide. From August, 1974 till June, 1976, out of 24 observed or registrated births, 9 newborns were exposed immediately after birth, tied up in leaves together with the placenta. The exposed babies have no chance of survival. Seven of the exposed were girls, one a boy, in one case the sex could not be made out. Of the 11 accepted children, one girl died four weeks after birth.

The Binalgegebna aik men's house in Munggona has particular
importance as sacred center of the southern section of the investigated area. Amongst other things it harbors a digging stick (kwendina kama, lit. 'creator-digging-stick') which is treated with extreme awe. One is tempted to draw speculative connections between the distinguished position of this sacredly held object and the importance which the transition from the state as hunters and gatherers to a life as settled horticulturists has had objectively and perhaps also subjectively for the mountain tribes. Whether the kwendina kama may be interpreted as such a symbol must be left open for the time being.

The contact with the world of ghosts (lina), which according to the Eipo animistic conceptions penetrate the visible and invisible world, is administered by those men and women of the village community, who either play a leading role within their clan, thus holding a close connection to the clan ancestor, or else are seers (asing ketenang). Latter individuals, mostly of introvert character and of less physical activity than those who dominate outwardly in village life, are attributed with particular capabilities and attitudes. For example, they are thought to be able to move through the air, thus swiftly covering large distances. They are also thought to injure other persons in the form of stab wounds or impalement, in order to drink of their victims' blood. This kind of endo-cannibalism corresponds to a real though rarely exercised exo-cannibalism (eating of killed enemies).

From hitherto known myths, e.g. of the hero Yale-nye (lit. 'the one from the east'), of the ancestor pigs kwendina basam, of sun, moon, and stars (keting, wala, kurva, olol) can be derived the socio-historical influence of the east (yaletam; note the etymological connection to yala 'seedling', 'clan'), but also the most important connection across the central mountain range to the south becomes obvious in the legends. Less frequently mythology makes reference to the west, like in the conception of the ghost-woman Ketingban-gil (lit. 'where-the-sun-goes-down-woman, west-woman') who is responsible for the origin of some illnesses. That the culture-shaping influence from the east must have been strong becomes also obvious in the myths of the Yali people around Angguruk, where a creator figure, coming from the east, plays an outstanding role.

Acknowledgments

I thank the initiators of the project, Dr. Gerd Koch and Dr. Klaus Helfrich, the Deutsche Forschungsgemeinschaft, the Embassy of the Federal Republic of Germany, the Lembaga Ilmu Pengetahuan Indonesia, the colleagues in the Universitas Cenderawasih, especially Rektor Dr. Rubini and Dr. Suharno, the head of the Health Department, Dr. S. Gunawan, the authorities in Jakarta and Jayapura, the Missionary Aviation Fellowship, the Un Evangelized Fields Mission, The Missionary Fellowship, and the Gereja Kristen Injil. Among the colleagues who have helped and stimulated my own research I would like to mention specially Volker Heesch and my wife, Grete Schiefenhövel, who has carried out research on the female sphere besides her dental and dental-antropological fieldwork. Warm thanks I owe to the Eipo and the people of the Mek area, who with their hospitality, their intelligence, and their generous cooperation have made the research project possible: na ninye bunang, angun Eipo kin sal ab, kilape ab, mapé ab, gilmape ab, angun lilwe na kekinman, na bouwke wik, angun karya na sukanil - My friends, you men, women, boys, and girls of the slopes reaching down to the Bipomok, about you I have written, I have a strong feeling in my liver (I am longing to see you again), I am missing your souls (your presence) very much.
Notes

1 Publication No. 16 of the priority programme "Man, Culture, and Environment in the Central Highlands of Irian Jaya."

2 Field work in the Mek area: June 1974 - November 1975, and March - June, 1976, for most of this time as the project's field director.

3 Quarterly reports on the research activities were sent to LIPI, UnCen, and authorities in Jayapura and Jakarta. It is hoped that a number of the forthcoming German publications will be translated and published by the Fusat Dokumentasi Ilmiah Nasional; the PUDIN and UnCen have received the first 1000 slides and the copies of the first 16 mm film.

4 The result of a comparison of my word lists collected in Ok Bab, Eipomek, Didiwema, and Kosarek (Swadesh 100 word list) and of material from Langda (missionary Jan Louverse) and Naicca (Rule, W.M. & J.E. Rule & R. Cutting, see bibliography). Volker Heeschen has done much more thorough linguistic work. (Heeschen 1975)

5 In the southern Eipomek valley (Liknang dialect) mek is the word for 'water, river', to which corresponds mak in Kosarek, me in Langda, bime, and Ok Bab. Ok Bab is a name introduced by whites coming from the east, who used the language of the Ok people, similarly the name for the language of the natives around Ok Bab (Ketemban) is an import from the east, as ketemban is the word for 'west', and there lies Ok Bab for the Ok people. Correctly Ok Bab ought to be called Bame.

6 S. de Kock, M.A. 1912: The mountain Goliath, with about 3300 meters one of the lower peaks of the central range, lies west of Langda.

7 The term Kimali was introduced by Saddlier.

8a Bromley quoted from Voorhoeve, C.L. (1968).

8 Koch, K.P., see bibliography and Zöllner, S., personal communication, August, 1975.


13 Exact data of geology, meteorology, botany, and zoology shall be published by the respective departments.

14 Koch, G., personal communication in the middle of September, 1974. The general expression for taboo is mem (lit. 'do not').

15 According to G. Schiefenhövel's measurements there is often less than 1.2 meters of space available per person, as the huts house people and animals.

16 According to the findings of G. Schiefenhövel.


18 My learning about the clan structure was particularly enhanced by information given to me after the marriage of Bolak and Tokonto on April 2, 1975.

19 According to P. Blum (personal communication, May, 1975), a Natrix sp.

20 Zöllner, S., personal communication, August, 1975.

21 Findings mainly by G. Schiefenhövel. It is interesting to note that more young men than women die; the population pyramid is therefore rather isosceles at the age level of approximately 35 years.

22 Its reconstruction has been filmed by G. Koch and me (film forthcoming).

23 In discussions I. Eibl-Eibesfeldt pointed to this context.

24 Zöllner, S., personal communication, August, 1975.

References


Fowler, G. & J. Fowler, and M. & J. Rule (ms.) Alphabet and Grammar of the Ketengban language.


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Photo 1: From the village Imarin, situated at about 2000 meters, one looks into the broad valley east of the Bipomuk River. The round huts have conical or span roofs.

Photo 2: Inside the huts live up to four families, often together with pigs and dogs. Tokonto (second from the right), a girl about 16 years of age, has been freshly assimilated into the hut-community after her marriage.

Photo 3: On the central village ground the men take a common meal, which has been cooked in a flat earth-oven by means of heated stone. In the middle Babyal, one of the leading men of Munggona, squats.

Photo 4: In the warm morning sun Nenengnun, Dirbarinto and Bide (from left to right) are cuddling two piglets. The rearing of pigs takes a considerable part of the women's working time and is practiced with great devotion.

Photo 5: The corpse of Eboa, a young man from Munggona, is lifted into the top of a tree, where it will remain for more than half a year.

Photo 6: A dance feast in the village of Kwarekala. Starting from a semi-circle the men dance to the middle in a spiral line. A part of the dance sequence is performed there, then the men return to the starting point with rhythmic shouts and a special kind of inspiratory whistling. Girls and women dance mostly at the periphery of the dance ground, usually in the later hours.

Photo 7: Fayeto, approximately 35 years of age, has just given birth to a baby girl. Without being touched the Elpo babies slide down to the leaf-covered ground. The umbilical cord is severed with a bamboo knife only after the placenta has appeared. Even though no tourniquet is applied there is very little, if any, blood loss from the umbilical wound. All women remain in a more or less vertical position during childbirth, thus enhancing labour, but change individually between squatting, standing, and different forms of sitting.