

1 *The eastern Bird's Head languages compared*

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1 Introduction¹

The Bird's Head Peninsula of Irian Jaya is rather naturally divided into a western and eastern part by the Kamundan and Weriaragar rivers, which both spring from the Tamrau Mountains and run parallel to the south flowing into the McCluer Gulf. From two accounts of the oral tradition it seems that, at least to some people, there is an awareness of three major ethnolinguistic groupings in this eastern area. A Hatam speaker told me (at Minyambou in 1994) that *Mimpui* (= a nominal marker plus the verb *pui* 'tell') had assigned the Kepala Burung 'Bird's Head' to the three groups *Tinam* (= Hatam), *Tuig* (= Sougb) and *Sreu* (= Meyah). A few years later (at Sururei in 1998) a Sougb speaker stated that Igba was the ancestor of the *Sougb*, the *Ijom* (= Hatam) and the *Sana* (= Meyah). These three groups originated, according to his story, in the area somewhere between Bintuni and Merdey. Neither speaker considered the languages Mpur and Mansim. Presumably, the former was located too far north considering the area they were focusing on, while the latter was no longer viable as a major linguistic community. Four of these eastern Bird's Head (EBH) languages, namely Sougb, Meyah, Mansim and Mpur, are sketched in this volume, while for the fifth, Hatam, a separate grammar has been published (Reesink 1999).

On the other hand, in spite of the natural barrier formed by the two major rivers, and the restricted concept of the Bird's Head by the one Hatam speaker, there are other ethnolinguistic groups on the peninsula that have some relationship with the languages of the eastern Bird's Head. These are all part of the grouping known as the West Papuan phylum, which includes the Non-Austronesian (NAN) languages of Halmahera.

The main purpose of this paper will be to signal the features that separate or link the five languages with each other. To establish genetic relationships between these languages, indeed for most of the languages of the Bird's Head, is not easy. The attempts to do so by Cowan (1953, 1957) are not very convincing. The vocabularies are so divergent that similarities are generally very few and regular sound correspondences seem to be absent. For example, Voorhoeve (1989:90–92) gives the following cognate percentages for the languages of the eastern Bird's Head: Mpur-Hatam 3%; Mpur-Meyah and Sougb 5%; Hatam-Meyah 5%; Hatam-Sougb 8%. Inspection of the comparative wordlists in the appendix to this chapter shows that even with more detailed data these figures cannot be improved. Only in the case of Meyah-Sougb, for which Voorhoeve gives a 28% cognacy, can a solid case for genetic relationship be made. This is presented in §3. Furthermore, now that some more data on the nearly extinct language Mansim (also known as Borai) have become available, we can without any hesitation state that it forms a closely related family with Hatam (see Chapter 5).

In §2 some evidence is presented which may suggest that the languages of the eastern Bird's Head are not totally unrelated to other languages of the peninsula and the NAN languages of North Halmahera. Claims for distant genetic relationships are a tricky business, as Campbell (1998:311–326), for example, warns. Similarities in lexical items do not prove

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much. Either chance or borrowing, even in the basic vocabulary, can be responsible for correspondences that do not prove a genetic linkage. Grammatical evidence, such as 'shared aberrancy', 'morphological peculiarities' and 'submerged features' are generally considered better indicators for a distant genetic relationship.

After it has been shown, in §3, that Meyah and Sougb are bonafide members of a single small family, some peculiarities of the bound morphology that may point to a distant genetic relationship with Hatam and Mpur are presented in §4. In a few subsections some evidence for diffusion from and to Austronesian languages around the Bird's Head is given.

In §5 and §6 historical and anthropological data which can explain some of these linguistic similarities is presented.

In the conclusion, §7, a general characterisation of the languages of the eastern Bird's Head is given, with a number of areal features that are not necessarily confined to this part of the peninsula.

2 Links throughout the Bird' Head

2.1 Pronouns

The pronouns, both free and bound forms, of these languages show some clear correspondences within the eastern Bird's Head, as well as outside this particular area. Tables 1 and 2 (taken from Reesink (1998:606) with some corrections) show the free and bound forms for all the relevant languages.

Table 1: Free pronouns

	Tehit	Moi	Maybrat	Abun	Mpur	Meyah	Sougb	Hatam	Mansim
1SG	<i>tet</i>	<i>tit</i>	<i>tuo</i>	<i>ji/tat</i>	<i>in</i>	<i>didif</i>	<i>dan(i)*</i>	<i>dani*</i>	<i>danu</i>
2SG	<i>nen</i>	<i>nin</i>	<i>nuo</i>	<i>nan</i>	<i>nan</i>	<i>bua</i>	<i>ban(i)</i>	<i>nani</i>	<i>nanu</i>
3SGM	<i>wow</i>	<i>ow</i>	<i>ait</i>	<i>an</i>	<i>yeta</i>	<i>ofa</i>	<i>en(i)</i>	<i>noni</i>	<i>nenu</i>
3SGF	<i>mom</i>	<i>om</i>	<i>au</i>	<i>(mom)*</i>	<i>men</i>	<i>ofa</i>	<i>en(i)</i>	<i>noni</i>	<i>nenu</i>
1DU.EXC	<i>la-mam</i>	<i>aali-mam</i>	–	–	<i>wor</i>	<i>mamef</i>	<i>nanan</i>	–	?
1DU.INC	<i>la-faf</i>	<i>aali-paw</i>	–	–	<i>wor</i>	<i>nagif</i>	<i>aman</i>	<i>sani</i>	?
2DU	<i>la-nan</i>	<i>aali-nan</i>	–	–	<i>non</i>	<i>goga</i>	<i>yan(i)</i>	–	?
3DU	<i>la-yit</i>	–	–	–	<i>dor</i>	<i>goga</i>	<i>lan(i)</i>	–	?
1PL.EXC	<i>mam</i>	<i>mam</i>	<i>amu</i>	<i>men</i>	<i>yek</i>	<i>memef</i>	<i>emen</i>	<i>nyeni</i>	<i>ni(wap)</i>
1PL.INC	<i>faf</i>	<i>waw</i>	<i>amu</i>	<i>men</i>	<i>yek</i>	<i>mimif</i>	<i>maman</i>	<i>nyeni</i>	<i>ni(wap)</i>
2PL	<i>nan</i>	<i>nan</i>	<i>anu</i>	<i>nin</i>	<i>nen</i>	<i>iwa</i>	<i>yen(i)</i>	<i>jeni</i>	<i>syenu</i>
3PL	<i>yey</i>	<i>ey</i>	<i>ana</i>	<i>án</i>	<i>der</i>	<i>rua</i>	<i>len(i)</i>	<i>yoni</i>	<i>syenu</i>

* Keith Berry (1995:65) qualifies Abun *mom* as archaic. It is suspiciously similar to the Tehit 3SGF form. The free pronouns in Hatam and Sougb are obviously bimorphemic. The variants without the near deictic *-ni* freely occur. In fact, the Sougb forms are more often attested with a final nasal.

Many of the bound forms, given in Table 2, are transparently related to the free forms. Interestingly enough, they sometimes differentiate more categories, as in Moi, where the

opposition Human versus Non-human is signalled for third person, or in Hatam where inclusive-exclusive is marked, while this same distinction in Moi is neutralised. The column for Abun is empty, since Berry and Berry (1999) claim that Abun lacks pronominal affixation on the verbs. Their data do indeed suggest that the free pronouns cliticise to the bare verb stem or a few adverbial particles which can occur between pronoun and verb.

Table 2: Verbal prefixes

	Tehit	Moi	Maybrat	Abun	Mpur	Meyah	Sougb	Hatam	Mansim
1SG	<i>t-</i>	<i>t-</i>	<i>t-</i>		<i>(i)n-</i>	<i>di-</i>	<i>d-</i>	<i>d-</i>	<i>d-</i>
2SG	<i>n-</i>	<i>n-</i>	<i>n-</i>		<i>(a)n-</i>	<i>bi-</i>	<i>b-</i>	<i>a-</i>	<i>n-/mb-</i>
3SGM	<i>w-</i>	<i>w-/p-</i>	<i>y-</i>		<i>a-</i>	∅	∅	∅	∅
3SGF	<i>m-</i>	<i>m-</i>	<i>m-</i>		<i>n-</i>	∅	∅	∅	∅
1DU.EXC	–	<i>aam-</i>			<i>o-</i>	<i>ma-</i>	<i>na-</i>	–	?
1DU.INC	–	<i>aaw-</i>			<i>o-</i>	<i>na-</i>	<i>am(a)-</i>	<i>s-</i>	?
2DU	–	<i>aan-</i>			<i>n-</i>	<i>go-</i>	<i>ya-</i>		<i>k-</i>
3DU	–	<i>aay-/aan</i>			<i>do-</i>	<i>go-</i>	<i>la-</i>		<i>k-</i>
1PL.EXC	<i>m-</i>	<i>p-</i>	<i>p-</i>		<i>e-</i>	<i>me-</i>	<i>ma-</i>	<i>n-</i>	<i>ng-</i>
1PL.INC	<i>p/f-</i>	<i>p-</i>	<i>p-</i>		<i>e-</i>	<i>mi-</i>	<i>em-</i>	<i>i-</i>	<i>ng-</i>
2PL	<i>n-</i>	<i>n-</i>	<i>n-</i>		<i>n-</i>	<i>yi-</i>	<i>y-</i>	<i>j-</i>	<i>s-</i>
3PL	<i>y-</i>	<i>y-/n-</i>	<i>m-</i>		<i>de-</i>	<i>ri-</i>	<i>l-</i>	<i>i-</i>	<i>s-</i>

It is not really necessary to discuss extensively the possible origins and linkages of the personal pronouns in the Bird's Head languages. Voorhoeve (1987b) has already tried to link them to the pronoun sets postulated by Wurm for most of the Papuan languages. It is clear that the most widespread forms are *t-d* for 1SG, and *n(V)* for 2SG. When Voorhoeve tried to explain the anomalous 1SG of Mpur by postulating *in < yin < yi ~ ji*, which is found in one of the dialects of Abun, he had to leave the accretion of the nasal unexplained (1987b:720). It seems clear that Mpur *-n* has at least the function of indicating feminine gender, as pointed out by Odé (see Chapter 2, this volume). A possible second function involves some givenness. Just as the final material on the free pronouns in the languages of the eastern Bird's Head, *nu* in Mansim, *ni* in Hatam and Sougb, and *-if ~ ef* in Meyah, material such as final *n* and the suffixal *-ta* on Mpur 3SG free pronoun is derived from deictic material, as observed by Voorhoeve (1987b:720).

Rather aberrant is the bilabial for 2SG in Meyah and Sougb free and bound pronouns. To explain this, Voorhoeve (1987b:725) made an excursion to the Torricelli phylum. But, as I remarked before (Reesink 1996:5), this form could equally well be traced to the Austronesian (AN) languages of the Cenderawasih Bay. Considering that it is precisely these languages with a clear opposition between inclusive and exclusive for 1PL, and that these two languages have a quite regularly formed dual, I would reiterate my conjecture even more firmly. More than adjacent languages Hatam and Mansim, Meyah and Sougb appear to have adopted some definite Austronesian features, including the 2SG pronoun (see also §7).

The only other exception to the Bird's Head 2SG form *n(V)-* is the bound form *a-* in Hatam. It seems quite plausible to explain this as an apocope of the nasal, given the regular Bird's Head item of the free pronoun, *na(ni)*.

Considering the forms for 2PL and 3PL, one could make a case for a genetic link between Hatam, Sougb and Meyah (possibly Mpur) and the western languages Tehit and Moi. The palatal approximant may have undergone a switch in person category, or it may reflect an original form not differentiating between second and third person, which is not unusual in Papuan languages. At a later stage, when these languages acquired a differentiation, it was assigned third person in the west, and predominantly second person in the east of the Bird's Head.

Likewise, 1PL seems to be *m(V)*- in most languages of the peninsula, disregarding the inclusive-exclusive opposition, and if we allow palatalisation to have affected this pronoun in Hatam *nye(ni)*, a process which is also attested in the etymon for 'water': Meyah *mei*, Hatam *nyei*.

One further point of evidence concerns the gender distinction between *w ~ f* for masculine and *m* for feminine in the western languages Tehit and Moi. As I suggested in Reesink (1998:621), although the opposition has been lost in the eastern part of the peninsula (retained, albeit by other forms in Maybrat and Mpur), the 3SG possessive prefixes divided over Meyah *ef-* and Sougb *me-* are likely reflexes of these original gender specific pronouns.

2.2 Lexical comparison

In Reesink (1998) I have given a few items, such as the terms for 'eat' and 'drink', which are indicative of a genetic relationship for all the languages of the Bird's Head (except the South Bird's Head group). They are repeated (with corrections) here, including variants of related languages such as Mansim and Moskona:

	Hatam	Mansim	Sougb	Meyah	Moskona	Mpur	Abun	Maybrat	Tehit	Moi
drink	<i>dut</i>	<i>dot</i>	<i>ek</i>	<i>ej</i>	<i>et</i>	<i>kobet</i>	<i>da</i>	<i>ata</i>	<i>aaqo</i>	<i>o</i>
eat	<i>yem</i>	<i>dem</i>	<i>et</i>	<i>et</i>	<i>et</i>	<i>det</i>	<i>git</i>	<i>ait</i>	<i>at</i>	<i>ak</i>

Since in many (Papuan) languages there are no separate lexical items for 'eating' and 'drinking', it is not unreasonable to assume a basic set for the Bird's Head languages. This might be something like **(d)eT*. Some borrowing may have gone on, when we consider that the Hatam and Mansim terms for 'eat' are suspiciously similar to Mpur 'bite' *yem*. Perhaps the Bird's Head **(d)eT* is related to the ubiquitous Trans New Guinea (TNG) form **nV-*, but this is, of course, not more than speculation.

There are a few other items which might indicate that the languages of the Bird's Head are distant relatives of other Papuan languages. One of the more stable etyma in TNG languages, according to Pawley (1998:679), is 'louse', with the protoform being something like **niman*. The forms found in the EBH languages could be more than chance similarities: Sougb *mem*; Meyah *mej*; Hatam *mem*; Mpur *im*.

There are some other indications that the EBH languages have old connections with Papuan languages further to the east. For example, as already mentioned with regard to the pronominal form for 1PL, Meyah has *mei* for 'water', cognate with Hatam *nyei*. A totally different etymon appears in Sougb. In my description of Sougb I hypothesised that *duhu* 'water, river' consists of the root *-uhu*, since also a form *me-uhu* [mohu] occurs meaning 'liquid' in general. It may be more than accidental that both roots for 'water' have similar forms in the Mek and Ok languages, which are so called because of their diagnostic etyma for 'water'.

Another etymon widespread throughout the TNG family and beyond is the term for the indigenous species of taro (*Colocasia esculenta*), which is something like *ma ~ mo ~ me* (see Hays 2000; Ballard 2000). As Hays points out, often it is not clear which species are meant when secondary sources give translation equivalents in English, Tok Pisin or Indonesian. Moreover, terms for food crops are easily transferred to other species, and/or borrowed from neighbouring languages. For example, whatever etymon was available for an indigenous tuber, this might have been adopted in some form or other to newly introduced sweet potatoes, yams, or other taro varieties. Thus, similarity of terms in this semantic field forms by no means strong evidence. Yet, when terms for taro or sweet potato do reflect the putative proto-term it could mean that languages in this area did share the proto-term for the indigenous species. Thus, Mansim *mow* for 'taro', Meyah *mou* for 'sweet potato', and *mam* for 'taro', Hatam *mino* (with *mi-* being a (fossilised?) prefix), Sougb *mun*do for 'taro' may reflect an old Papuan etymon (see comparative wordlists for these terms and those for other food crops).

In this area it is just the two languages Hatam and Mansim which agree in their word for 'sweet potato' *sieP*, which presents more evidence for contact, since it is a more recently introduced item. This term has equivalents in Central Highlands languages (Dani, Yali, etc.), according to Scaglione and Soto (1994:279) and further to the east in some languages of the western province of Papua New Guinea, such as *siaP(u)ru* in Bainapi, Kamula and Kasua (Reesink 1976:14). In fact, as Scaglione and Soto (1994:271) show, languages with terms for 'sweet potato' related to these terms are scattered throughout New Guinea, interspersed with a number of other sets. Whatever this might mean in terms of the migration of the sweet potato, as Scaglione and Soto are trying to argue from the distribution of the different etyma, it does suggest some (trading or otherwise) relationship between the EBH and the more eastern (TNGP) Papuan languages. In their finderlist of reconstructions in Austronesian languages, Wurm and Wilson (1975:211) list a form *siavu*, identified as Proto Ambonese by Stresemann. Whether this form is indeed of AN origin or a Papuan diffusion into the Moluccas is not decided. In either case it is a sign of (trading) contact between New Guinea, in particular the eastern Bird's Head and the Moluccas. In other words, clearly some lexical similarities are due to contact, but some others may be indicative of a distant genetic relationship, both within the Bird's Head and with Papuan languages outside this area, although much stronger evidence would be needed to make this a firm claim.

3 The genetic relationship between Meyah and Sougb

Since Meyah and Moskona could be considered as dialects, only data from Meyah is taken to compare with Sougb in order to illustrate the close relationship within this group of languages. Verbal and nominal morphology is considered in some detail, and some possible sound correspondences are illustrated.

3.1 Verbal morphology

Both languages have a five-vowel system: *i, e, a, o, u*. But verb stems in both Meyah and Sougb can only begin with [-HIGH] vowels: *e-, o-, a-*. In both languages this restriction holds for (most) adjectival notions as well.

In contrast to other languages of the Bird's Head, for which subject prefixation is the norm, both Meyah and Sougb have other categories of verbal morphology, which are partly parallel.

(i) Meyah has the verbal prefix *er-* to mark instrument, which corresponds to Sougb *a-*, as illustrated by:

Meyah:

- (1) *M-era medeb efeyi m-er-ei mod.*
 1EXC-use sago leaf 1EXC-INS-assemble house
 We use sago leaves to construct a house.

Sougb:

- (2) *En eic inyomus a-(e)s berough.*
 3SG take bow INS-shoot chicken
 He took his bow and shot a chicken.

(ii) Meyah has a prefix, *en-*, to mark a durative aspect, which Sougb lacks.

(iii) Both languages have a prefix *em-*, which is labelled 'intentional' for Meyah and 'irrealis' for Sougb. There are some interesting similarities and differences between the two languages with respect to these prefixes. Meyah seems to require durative *en-* on clauses following a sequential conjunction, as in (3), and it is definitely obligatory to mark the verb with *en-* when the clause is negated, as in (4). Exactly the same conditions apply to Sougb *em-*, as illustrated in (5) and (6).

Meyah:

- (3) *Motu fogora ri-en-esaga gu mod.*
 night then 3PL-DUR-arrive at house
 At night then they were arriving at the house.

Meyah:

- (4) *Ofa en-agob ef-en m-okosa guru.*
 3SG DUR-hit 3SG-POS 3SG-brother not
 He did not kill his (younger) brother.

Sougb:

- (5) *Loba kaba l-em-agunya se tu.*
 night then 3PL-IRR-arrive at house
 At night then he arrived at the house.

Sougb:

- (6) *En em-ogod en m-agt(o) ero.*
 3SG IRR-hit 3SG 3SG-younger.brother not
 He did not kill his (younger) brother.

Whereas Meyah seems to allow both durative *en-* and intentional *em-* on the verb of a consecutive clause, Sougb only has irrealis *em-* with that function. Whereas Sougb *em-* is required on a negated verb, Meyah *em-* is not allowed to co-occur with *guru* 'not'.

(iv) Meyah has yet another verbal affix, which is absent in Sougb. It marks a perfective aspect by the infix *-N-*, which yields contrasting constructions, as in:

- (7) *Memef m-en-et mar.*
 1EXC 1EXC-DUR-eat thing
 We are eating.
- (8) *Memef m-e-n-t ma.r*
 1EXC 1EXC-PERF-eat thing
 We have eaten.
- (9) *Memef m-em-et mar.*
 1EXC 1EXC-MOD-eat thing
 We intend to eat.

When the intentional (Meyah) or irrealis (Sougb) marking co-occurs with the instrument prefix, the basic order is the same for both languages. The instrument is closest to the stem. In fact, the vowel *a* replaces the stem vowel *e* in Sougb. (For further details on the morphological behaviour of these prefixes, see the descriptive chapters on the respective languages.) Compare Meyah (10) and Sougb (11).

- (10) *Mi-otunggom bedeng fogora mi-em-er-efa metrem efej gij.*
 1INC-make seed.bed then 1INC-MOD-INS-plant corn seed in
 We make a seed bed intending to plant corn seeds in (it).
- (11) *En em-eic kepta em-a(e)hi sogo ero.*
 3SG IRR-take axe IRR-INS-fell tree not
 He did not use the axe to cut the tree.

Both Meyah and Sougb allow pronominal object clitics to be attached to prepositions:

Meyah:

- (12) *Di-em-eita mat gu-ib.*
 1SG-MOD-give food to-2SG
 I intend to give food to you.

Sougb:

- (13) *D-em-eic aret dou-b.*
 1SG-IRR-give food to-2SG
 I'll give food to you.

Note that in both languages, the form translated 'to give' has the more general meaning 'to take' (Indonesian *ambil*) and receives the 'give' interpretation when it is followed by the preposition 'to', in Meyah *gu*, in Sougb *dou*.

Gravelle (this volume, Chapter 3, §3.3.2) states that Meyah allows object clitics to all verbs, in contrast to its dialect Moskona. In Sougb, there is at least the possibility to cliticise pronominal objects, other than 1PL and 1DU, to vowel-final verbs (Chapter 4, §3.2.2.5). Further evidence is lacking.

The reciprocal pronoun (or clitic) takes the place of object with action verbs with plural subject marking:

Sougb:

- (14) *Mamam m-arges-im-da.*
 we.INC 1INC-let.go-RECIP-go
 We scattered. (lit. We let each other go.)

Meyah:

- (15) *Rua ri-em-agob-(u)ma.*
 they 3PL-MOD-hit-RECIP
 They intend to strike each other.

3.2 Nominal morphology

Gravelle (1998:562; this volume, Chapter 3, §3.2) notes that all indigenous alienable nouns in Meyah begin with *m-*. The ten per cent or so of alienable words that do not, are clearly recent loans. Comparison with data from Sougb suggests that this initial *m-* is an old possessive prefix. In Sougb it is still productive as third person singular possessive marker, both on inalienably possessed nouns and the possessive pronouns. In both languages, terms for body parts, including notions such as 'name', 'reflection' and other less tangible parts of personhood, and kinship relations, as well as social relations such as 'friend', are obligatorily prefixed to indicate person-number of the possessor. The default is 3SG possessor. This has resulted in a fossilisation of the original Meyah 3SG possessive prefix, which now is still present in a number of inalienable nouns. The result is that in Meyah inalienables, the original form *Vf-* has become part of the noun stem, so that 3SG is zero marked and other person categories require their markers preceding the old 3SG. This form is still present and corresponds with Sougb *me-*, as can be seen in the paradigms of possessive pronouns in (16). This also shows that the possessive element is the same in both languages, albeit with some vowel alternations. It would be tempting to assume a verbal origin for Meyah *-in ~ -en* and Sougb *-en ~ -an*, as I have set them off by hyphens in (16), but that would leave unexplained the fact that verbs do not take most of the person markers as parsed in (16): see Table 2.

(16)	Meyah	Sougb
1SG	<i>ded-in</i>	<i>ind-an</i>
2SG	<i>beb-in</i>	<i>ab-an</i>
3SG	<i>ef-en</i>	<i>me-n</i>
1DU.EXC	<i>mafm-an</i>	<i>am-an</i>
1DU.INC	<i>nafn-an</i>	<i>nan-an</i>
2DU	<i>geg-an</i>	<i>maj-an</i>
3DU	<i>geg-an</i>	<i>mar-an</i>
1EXC	<i>mefm-en</i>	<i>em-en</i>
1INC	<i>mifm-in</i>	<i>mam-an</i>
2PL	<i>yey-in</i>	<i>mej-en</i>
3PL	<i>rer-in</i>	<i>mer-en</i>

The third person *ef-* is no longer separable in Meyah inalienable nouns, while for Sougb inalienable nouns the 3SG prefix is best analysed as *me-*, rather than *m-*, because it has consequences for the initial high vowels of the stem. The stem vowels /i/ and /u/, which are

present in all other person categories, are lowered in the 3SG form to *e* and *o*, respectively, while the stem vowel *a* remains unchanged. In contrast to these phenomena in Sougb, the low stem vowels *e* and *o* in Meyah are raised when they coalesce with the high front vowel of some of the person prefixes. A further consequence of the petrification of Meyah *ef-*, is that Meyah has only initial *e* and *o* in inalienable nouns, while Sougb allows all five vowels (see Chapter 4, §3.3.1). Compare the paradigms for Meyah *ofos* ‘skin’ (17) and *efaga* ‘body’ (18), and their Sougb equivalents:

(17)	skin	Meyah <i>ofos</i>	Sougb <i>us</i>
	1SG	<i>di-ofos</i> = [dufos]	<i>ind-us</i>
	2SG	<i>bi-ofos</i> = [bufos]	<i>ab-us</i>
	3SG	<i>-ofos</i>	<i>me-us</i> = [mos]
(18)	body	Meyah <i>efaga</i>	Sougb <i>aga</i>
	1SG	<i>di-efaga</i> = [difaga]	<i>ind-aga</i>
	2SG	<i>bi-efaga</i> = [bifaga]	<i>ab-aga</i>
	3SG	<i>-efaga</i>	<i>me-aga</i> = [maga]

I will return to the topic of inalienable nouns, which in both languages seem to be immutable classes, when I consider possible links between Meyah, Sougb and Hatam.

That the third singular possessive prefix *me-* is evident from the vowel alternations in Sougb. It receives confirmation from a few alienable nouns in Meyah. Consider the correspondences in (19). In both languages the vowel *a* remains largely immune to the effects of adjacent vowels, so that Meyah *mar* ‘something’ corresponds to Sougb *ara*.

(19)		Meyah	Sougb
	corn	<i>metrem</i>	<i>tram</i>
	banana	<i>menei</i>	<i>nejj</i>
	canoe	<i>meg</i>	<i>ij</i>

Both languages allow plural marking with the suffix *-ir*. In Meyah this suffix may occur on all animate nouns, including *mek* ‘pig’ and *mes* ‘dog’, *mek-ir* ‘pig-PL’ and *mes-ir* ‘dog-PL’. In Sougb it is only allowed on human nouns, kinship terms and social relationships, subject to some vowel harmony with the stem vowel: *ind-ihir* ‘1SG-child-PL’, *me-us-ir* ‘3SG-skin-PL’ becomes [moser] for ‘his/her relatives’.

3.3 Lexical correspondences

Meyah and Sougb share at least about thirty per cent of cognates, clearly showing a common inheritance. Not all sound correspondences are clearly established yet. In some cases, the direction is reversed, suggesting that the languages have retained elements from their ancestral language in an unsystematic way. Alternatively, they may have borrowed elements from each other after the split had taken place. Consider the forms for ‘child(ren)’ in (20). As is the case for some other kinship terms as well, Meyah employs person prefixes which diverge from the present productive set. In this set, for example, the 3SG prefix *ef-* can be isolated from the stem. When Meyah *-ir* is attached to a final *-a* the resulting vowel is *e*.

(20)	Meyah	Sougb
1SG-child-PL	<i>ed-esa-ir</i> [edeser]	<i>ind-ih-r</i>
2SG-child-PL	<i>eb-esa-ir</i> [ebeser]	<i>ab-ih-r</i>
3SG-child-PL	<i>ef-esa-ir</i> [efeser]	<i>me-hi-r</i>
3PL-child-PL	<i>er-sa-ir</i> [erser]	<i>mer-ih-r</i>

Thus, there are a number of mainly, inalienable nouns that are (almost) identical if the Meyah fossilised *ef-* is taken as equivalent of the productive Sougb 3SG prefix *me-*:

	Meyah	Sougb
ashes/dust	<i>oforu</i>	<i>mor</i>
blind	<i>eiteij ofou</i>	<i>maires mougb</i> (= '3SG.eye blind')
body	<i>efaga</i>	<i>maga</i>
bone	<i>ofora</i>	<i>mohori</i>
egg	<i>ofou</i>	<i>mougb</i>
feather/hair	<i>efeji</i>	<i>modi</i>
hole	<i>efesi</i>	<i>mes</i>
name	<i>ofoka</i>	<i>moho</i>
sharp (point)	<i>ofog</i>	<i>mog</i>
skin	<i>ofos</i>	<i>mos</i>

Some possible sound correspondences are:

	Meyah <i>o</i>	~	Sougb <i>e</i>
ascend	<i>osok</i>	~	<i>eisaugb</i>
bad	<i>oska</i>	~	<i>ecgu</i>
deaf	<i>otuw</i>	~	<i>etugb</i>
fell	<i>of</i>	~	<i>ehi</i>
neck	<i>oruk</i>	~	<i>m-ergo</i>

But, as mentioned, there are correspondences in reversed direction:

	Meyah <i>e</i>	~	Sougb <i>o</i>
dig	<i>eji</i>	~	<i>ogo</i>
hear ²	<i>eg</i>	~	<i>ouman</i>
divide	<i>ekeba</i>	~	<i>ouhw</i>
hair	<i>efeji</i>	~	<i>modi</i>
also	<i>tein</i>	~	<i>tou</i>
chase	<i>ejer</i>	~	<i>ocir</i>
	Meyah <i>f</i>	~	Sougb <i>h</i>
already	<i>fob</i>	~	<i>hob</i>
blow, sing	<i>of</i>	~	<i>ohu</i>
to fly	<i>ofow</i>	~	<i>ohw</i>
liquid	<i>mofut</i>	~	<i>mohu</i>

² At first glance Meyah *eg* and Sougb *ouman* do not look very similar. I suspect, however, that the Sougb term is polymorphic. Thus I'm comparing only the first syllable *ou-*.

	Meyah <i>k</i>	~	Sougb <i>h</i>
carry	<i>ok</i>	~	<i>oho</i> (of string bag)
name	<i>(of)oka</i>	~	<i>oho</i>
red	<i>ekeni</i>	~	<i>ahani</i>
knee	<i>oke-ibi</i>	~	<i>mohor-beda</i>
one ³	<i>e(r)-gen-s</i>	~	<i>hom</i>
tie, build	<i>akid</i>	~	<i>ohut</i>
	Meyah <i>j</i>	~	Sougb <i>d</i>
throw	<i>ejj</i>	~	<i>edi</i>
go	<i>eja</i>	~	<i>eda</i>
with	<i>jera</i>	~	<i>dara</i>
friend	<i>ohuj</i>	~	<i>sud</i> (Sougb = 'person'; friend = <i>-si</i>)
hair	<i>efeji</i>	~	<i>modi</i>
	Meyah <i>K</i>	~	Sougb palatal <i>C</i> or approximant <i>y</i>
pig	<i>mek</i>	~	<i>hwej</i>
canoe	<i>meg</i>	~	<i>ij</i>
to see	<i>ek</i>	~	<i>eiya</i>

There are a few items which suggest that Meyah *-k(u)* or *-f* or *-w* correspond to Sougb final *gb*:

ascend	<i>osok</i>	~	<i>eisaugb</i>
flee	<i>oku</i>	~	<i>ougb</i>
run	<i>ofof</i>	~	<i>ougb</i>
sweet potato	<i>mow</i>	~	<i>augwu</i>
for	<i>nou</i>	~	<i>naugb</i>

Finally, there are a number of basic vocabulary items which are (almost) identical:

eat	<i>et</i>	~	<i>ed</i>
come	<i>en</i>	~	<i>en</i>
cut off	<i>etka</i>	~	<i>etkwa</i>
cry	<i>ebisa</i>	~	<i>eb</i>
take, give	<i>eita</i>	~	<i>eic</i>
tear	<i>ekris</i>	~	<i>ekris</i>
know	<i>ejginaga</i>	~	<i>ecinaga</i>

4 Evidence for eastern Bird's Head grouping and contact

In the previous section evidence for the genetic relationship between Meyah (which includes its close relative Moskona) and Sougb has been presented. In this section some morphological peculiarities that could serve as (meagre) evidence that all five languages of

³ Sougb has *gem* in *ser-gem* in which *ser* is obviously from *s(l)ra* 'hand'. The Meyah material around *gen* is unaccounted for.

the eastern Bird's Head are (distantly) related are discussed. The topics are grouped in such a way that firstly evidence is supplied for inclusion of Hatam (and by extension Mansim) in a genetic relationship with the established family. And later some morphology shared by all languages of the area is presented. Although a few lexical correspondences could further strengthen the genetic hypothesis, in the absence of regular sound correspondences, they are interpreted as contact phenomena. In fact, various items reviewed in §4.8 are indicative of extensive contact far beyond this region. Finally, in §4.9, attention is drawn to a peculiar semantico-syntactic feature, found in Meyah, Sougb and Hatam, but with a striking parallel in Biak.

4.1 Meyah and Hatam: some inalienable nouns

When I discussed the nominal morphology of Meyah and Sougb, I made the statement that Meyah *ef-*, clearly corresponding to Sougb *me-*, is no longer separable in inalienable nouns, and that Meyah only has *e* and *o* as initial vowels in such items.⁴ That statement needs some qualification. There are a few body part items in Meyah that do not begin with *ef- ~ of-*, but with *et ~ ot-*, as the words in (21) illustrate.

(21)		hand		stomach	
	1SG	<i>di-etma</i>	[ditma]	<i>di-otkonu</i>	[dutkonu]
	2SG	<i>bi-etma</i>	[bitma]	<i>bi-otkonu</i>	[butkonu]
	3SG	<i>-etma</i>	[etma]	<i>-otkonu</i>	[otkonu]

Possibly, Meyah *di-et* = [dit] on *di-etma* 'my hand' and *di-ot* = [dut] on *di-otkonu* 'my stomach' reflect an old possessive prefix, which is (non-productive) present in Hatam kinship terms: /t/ before non-bilabials, /p/ before bilabials, as in:

(22)	Hatam	
	my wife	<i>di-t-nem</i>
	my grandfather	<i>di-t-nygon</i>
	my mother	<i>di-p-mem</i>

4.2 Sougb and Hatam: connective clitic *bi-*

For Hatam I described a connective clitic *bi-* as marking a purposive or resultative relationship in a verb sequence (Reesink 1999:102), as in:

(23)	<i>Ji-tau</i>	<i>minyeyi</i>	<i>hi</i>	<i>bi=di-dut=i?</i>
	2PL-draw	water	some	PUR=1SG-drink=Q
	Draw some water for me to drink, please.			

(24)	<i>Di-bui</i>	<i>napia</i>	<i>bi=mai.</i>
	1SG-hit	wild.pig	PUR=die
	I killed the wild pig.		

⁴ An exception is the term for 'leg, foot' which is *aki*, and not something like **ofori/a*, which would correspond to Sougb *m-ohora*, as the terms for 'bone' correspond: Meyah *ofora* ~ Sougb *mohori*.

This connective is homophonous with the Hatam instrument marker (see §4.5), but it has a different position and function. It always precedes the subject prefix, while the instrument marker is a derivational verbal prefix, thus occurring between subject prefix and stem. The Hatam connective is remarkably similar in form and function to a connective clitic in Sougb (see Chapter 4, §3.11.1), as in:

- (25) *En ougwan ar-et b=et.*
 3SG cook thing-eat RES=eat
 S/he cooked food to eat.

In Sougb this form is only allowed with 3SG subjects, which are, as in Hatam, zero-marked. Other person categories simply require the subject prefix on the second verb, and do not allow the connective in addition, as Hatam does in (23). Consider:

- (26) *Dan d-eisa d-eihweda dau.*
 I 1SG-get.up 1SG-go.away from
 I got up and went away (= I got up to leave).
- (27) *En eisa b=eihweda dau.*
 s/he get.up RES=go.away from
 S/he got up and went away (S/he got up to go away).

4.3 Meyah, Sougb, Hatam: instrument marking

In none of these three languages can an instrument be nominally expressed in one clause with the action verb and object affected. It needs to be introduced as an extra-clausal constituent or as object of a preceding manipulative verb. But all languages frequently⁵ mark the action verb with a prefix that signals an instrument, see Meyah (Chapter 3, §3.3.3), Sougb (Chapter 4, §3.2.2.3), and Hatam (Reesink 1999:101), even when an explicit instrument is not mentioned in the immediate preceding context. The actual morphemes used for this morphosyntactic configuration are not clearly reflexes of one protoform. Meyah *er-* and Sougb *a-* may be related, Hatam *bi-* looks quite different, making the case for genetic evidence weaker. Here are just a few examples:

Meyah:

- (28) *Ri-era mocong ri-er-oduis rua.*
 3PL-use arrow 3PL-INS-pierce them
 They pierced them with arrows.

Sougb:

- (29) *En eic kepta a-(e)tkwa hwej.*
 s/he take machete INS-cut.up pig
 S/he cut up the pig with a machete.

⁵ My information is insufficient to make statements on the degree of optionality, such as under which conditions such marking might be obligatory.

Hatam:

- (30) *Nyeni ni-ba micim ni-bi-dat yoni.*
 we 1EXC-use spear 1EXC-INS-pierce them
 We pierced them with spears.

4.4 Meyah, Sougb, Hatam: the nominaliser *k*

For Sougb I identified a morpheme /g-/ consisting of a velar stop which appears to have a nominalising function (Chapter 4, §3.1.4). But, as I point out in the phonology of Sougb, the opposition voiced-voiceless is very dubious, if not absent altogether. In fact, there is quite a fluctuation in voicedness in the other EBH languages as well. In Hatam, for example, the opposition voiced-voiceless applies only in stressed syllables. Hence, I refer to it here as an unspecified velar plosive. It is prefixed to verbs (including adjectival notions). For example, the verb *omom* 'die' receives this prefix in the expression *g-omom dou en* 'give NOM-die to him'. And the word for 'work' is the compound *g-eic-ara* 'NOM-take-something'. It appears to be suffixed to the noun *ara* 'something' to form a relative pronoun, as in:

- (31) *Keita are-g dan d-a-(e)hi ind-an lo.*
 axe what-NOM I 1SG-INS-fell 1SG-POS garden
 The axe I used to cut my garden.

For an argumentation supporting the identification of this prefix and suffix as the same morpheme, see Chapter 4, §4.3.4. This form allows contrasting a general attributive adjective, as in (32), with a construction which conveys a specific reference out of a possible set, as in (33).

- (32) *Ban b-eic sogo agas.*
 you 2SG-take tree tall
 Take a tall tree.
- (33) *Ban b-eic sogo g-agas.*
 you 2SG-take tree NOM-tall
 Take a/the tree which is tall.

In Meyah, a much more reduced role is played by the same morpheme. It seems to occur only on demonstratives. Meyah demonstratives are *if* 'near speaker', *uma* 'near addressee', and *unj* 'overthere'. When they are used as substantives, they are prefixed with *ke-*: *kef*, *koma* and *konj* (see Chapter 3, §6.2), as in:

- (34) *Ge-(e)n-odou os ke-(i)f.*
 2/3DU-DUR-liver rub NOM-this
 They are desiring this. (Gravelle 1998:563)

The nominalised form can also be used attributively, presumably with more of a specifying function than the bare demonstrative:

- (35) *Maat ke-uma bera mar mareij.*
 food NOM-that is thing taboo
 That (particular) food is a taboo thing. (Gravelle 1998:570)

In Hatam a similar form *gi-* nominalises demonstratives, verbs and adjectives, and it marks complete clauses as conditionals or temporals (see Reesink 1999:46), as illustrated in (36)–(38).

- (36) *Gi-ma mindei?*
 NOM-that what
 What is that (thing)?
- (37) *gi-preu ni-jep*
 NOM-promise 3SG-new
 a new promise (= the New Testament)
- (38) *Nipou gi di-pilei yo lene di-bit di-cig.*
 before NOM 1SG-young still then 1SG-follow 1SG-father
 In the past when I was still young, I followed my father.

A common origin of this grammatical morpheme seems to be a more plausible explanation than diffusion.

4.5 Meyah, Sougb, Hatam, Mpur: the verbaliser (*e*)*be*

Meyah has a form *ebe-* which adapts Indonesian loan words as Meyah verbs, such as *ebe-pikir* ‘to think’ (see Chapter 3, §5). The form is identical in Sougb, as in *ebe-mahal* ‘to be expensive’, and many others. In fact, both languages use the same form with what is most likely a loan from Hatam. Hatam *ruei* means ‘to change’ (for example, as a snake changes its skin). Both Meyah and Sougb have *ebe-rwei* [eperwei] for ‘to change, translate’.

Now, in Sougb this verbaliser can be related to an existing verb with the generic meaning ‘to do’ *eba* (see Chapter 4, §3.2.4). Similar forms with a similar function, namely as verbaliser on loan words, occur not only in the EBH languages, but appear also in Mpur and Abun and in the adjacent AN language Biak-Numfor. Consider the form *we-* in Mansim, as in *we-licin* ‘to be slippery’. In Hatam the form had been analysed as *bV-* since the exact quality of the vowel was hard to determine, while the adopted spelling is *bi-*, as in *bi-mahal* ‘to be expensive’. In Hatam, the same form is used to mark the instrument on the verb, analogously to Meyah *er-* and Sougb *a-*. As I point out in my sketch of Mansim (see Chapter 5), Numfor has two similar forms, one clearly with a schwa, as in *bə-sam* ‘to be warm’, the other with an open front vowel, as in *be-sansun* ‘to dress’. The latter, I suggest, may be borrowed from the Bird’s Head form *ebe-*, originating as a verb ‘to do’, as it is still productive in Sougb.

Interestingly, both Mpur and its western neighbour Abun have the form *bi-* with a high front vowel, which incorporates loan words. Berry and Berry (1999:5) suggest that this form is most likely borrowed from Biak. It is only used with Biak and Indonesian loan words, as in *bi-win* ‘to sail’ and *bi-mengerti* ‘to understand’. The same form is used in Mpur, basically on loans from Dutch, *bi-skop* ‘to kick’, from Indonesian, *bi-lewat* ‘to cross’, from Biak, *bi-ankar* ‘to deceive’, and possibly also with original Mpur items, as in *bi-sik* ‘to be unable’ (see Chapter 2). Given the clear high front vowel in these two languages, the Hatam form may have this vowel as basic quality as well, which is always reduced in the unstressed position of this prefix.

My tentative scenario at this point is that Sougb, Meyah, Hatam (and Mansim) and Mpur share the form on genetic grounds, and that Biak-Numfor has adopted it through contact with Mansim. Later it may have found its way into Abun either from Biak or more directly from its NAN neighbour Mpur.

4.6 Meyah, Sougb, Hatam, Mpur: locative/direction marker

When the near and far deictics in Meyah are used adverbially, they occur in locative phrases with the preposition *jah* 'at'. The deictics themselves are nominalised with the prefix *s-* before they can occur in the prepositional phrase, as *s-uma* 'there' in (39).

- (39) *Ri-eker gij mei jah s-uma.*
 3PL-sit in water at LOC-there
 They stay in the water over there.

This Meyah form *s-* may be related to a similar element in Hatam, which has *si* following offglides, and an allomorph *ti* elsewhere, analysed as an 'areal nominaliser' in Reesink (1999:44, 92). Consider (40), which parallels the Meyah construction in that a preposition is required.

- (40) *Ni-gwam ei si-ma.*
 1PL-sit at NOM-that
 We were sitting there.

It is at least remarkable that Sougb and Mpur have a locative preposition with a similar form. Sougb has *se*, conveying 'location or path and/or destination', as in (41), contrasting with a preposition *dig* indicating 'path' only. Mpur *si* 'towards', contrasts with prepositions *ke* and *ku* in that it implies that the movement will take place, as in (42); see Chapter 2.

- (41) *Aman am-eigtou se ind-an tu.*
 1DU.INC 1DU.INC-sit at 1SG-POS house
 We two are sitting in my house.
- (42) *A-un si war.*
 3SG-go to water
 He will go to the river.

I would suggest that this locative marker, which functions as a prefixal element to deictics in Meyah and Hatam and as a preposition in Sougb and Mpur, is an argument for a genetic relation between these languages. But, at this stage, the possibility of diffusion cannot be ruled out.

4.7 Meyah, Sougb, Hatam, Mpur: reciprocal

The forms indicating reciprocal action are similar in all languages of the area. Compare Sougb *im* and Meyah (*u*)*ma* in (14) and (15) above, here repeated as (43) and (44), with Mpur *em* in (45) and Hatam *yam* in (46).

Sougb:

- (43) *Mamam m-arges-im-da.*
 we.INC 1INC-let.go-RECIP-go
 We scattered. (lit. We let each other go.)

Meyah:

- (44) *Rua ri-em-agob-(u)ma.*
 they 3PL-MOD-hit-RECIP
 They intend to strike each other.

Mpur:

- (45) *De-bwar na-em.*
 3DU-say to-RECIP
 They said to each other.

Hatam:

- (46) *Ji-kimut kep yam big.*
 2PL-strangle hold RECIP not
 Don't murder each other.

The reciprocal element is not only morphologically similar in these languages, but also in all four of them it shows identical syntactic behaviour in that it takes the position of verbal or prepositional object.

4.8 Some lexical evidence for contact

There are a few lexical items which seem to link the languages of the eastern Bird's Head. It is not immediately clear whether they would count as evidence for a genetic relationship. In fact, I suspect these similarities to be the result of contact.

One such item which links Meyah and Sougb with Hatam is the word for 'mountain', which in Meyah is *memaga*, clearly a compound consisting of *mem-(m)aga* 'mountain-(its)-body'. The phrase *mem-aga ofos* would then be 'mountain-(its)-body its-peak'. According to Gilles Gravelle (pers. comm.) *ofos* with a high tone means 'peak, point', contrasting with *ofos* with a low tone which means 'its skin'. Similarly, Sougb *men* is 'mountain', but *men-mod* is 'mountain peak' or 'top'.

Where Meyah has *mam* 'rock', Hatam has *mam* 'interior' ('mountain' is *nungugwa*), Sougb has *igdahabi* for 'rock' or 'stone'. It seems likely that Hatam *mam* 'interior', Meyah *mam* 'rock', *mema* 'mountain' and *men* 'mountain' in Sougb represent different reflexes of one etymon.

The vocative forms for 'mother' and 'father' seem to be indicative of certain demographic facts. For all groups patrilocal settlement has been reported as the default case (see §6). It was mostly women who migrated to other ethnolinguistic groups. Perhaps these facts explain why both the vocative and the referential term for 'mother' is quite stable throughout the area and beyond, while the terms for 'father' show much more variability.

Mansim and Hatam have both *amei* as vocative for 'mother', which in Meyah and Sougb is *ameinya* (with palatalisation of the nasal due to the preceding glide). Note that adjacent AN Wandamen also has *amei* as vocative.

The referential term (*m*)-*em* 'mother' has reflexes in a number of other languages as well, as already shown in Reesink (1998:608). The various languages are listed here. Notice that Meyah employs a completely different term, with an interesting morphological structure:

Hatam *-mem*, Mansim *-mem*, Sougb *-im ~ -em*, Mpur (*n*)*yen*, Abun *im*, Maybrat *-me*, Moi *-mem*, Tehit *-eme*. While Moskona has *inei*, the referential term in Meyah is for all possessors other than first person singular (which is identical to the vocative *ameina*) the form *m-osu-*. The second person singular possessor is marked by an object suffix, *mosu-ib*, 3SG possessor is zero, *mosu*, while the plural possessors make use of the regular possessive prefixes, replacing the petrified *m-*: *mi-osu* [musu] '1INC-mother', *i-osu* [yusu] '2PL-mother', *ri-osu* [rusu] '3PL-mother'.

While Meyah and Sougb both have *akeinya* as vocative for 'father', Hatam has *arig*, and Mansim seems to have *yai* both as vocative and referring term. The referring terms are the following. Again, Meyah employs the same aberrant structure for 2SG possessor:

Hatam *-cig*, Mansim *-yai*, Sougb *-ina ~ -ena*, Mpur *a(ya)*, Abun *ai*, Maybrat *atia*, Moi *mum*, Tehit *-ono(u)*. While Moskona has *ayok*, the referential term in Meyah is for all possessors other than first person (which is identical to the vocative *akeina*) the form *m-eka* which behaves just as *m-osu* 'mother': 2SG is marked by an object suffix *m-eka-ib* 'he-fathers-you'; 3SG is either zero *meka* or the fossilised 3SG marker *m-*. The latter is replaced by the regular possessive prefixes for the other person-number categories: *mi-eka* [mika] '1INC-father', *i-eka* [ika] '2PL-father', *ri-eka* [rika] '3PL-father'.

The term for 'mother's brother' seems to agree in stability with the term for 'mother', although data on some languages is lacking:

Hatam *mum*, Mansim *mum*, Sougb *-unyo ~ -onyo*, Mpur *mum*, Abun ?, Maybrat *-amu*, Moi ?, Tehit ?, Meyah *-eina*.

Apart from the fact that etyma for parents often reflect 'nursery forms', as Campbell (1998:321) calls them, with almost universally attested bilabials, as indeed we can observe in the given terms for 'mother' and 'mother's brother', the distribution of the vocatives *amei(nya)* and *akeinya* could easily be due to borrowing rather than be inherited from a common ancestor.

There are some data that are evidence of contact between the EBH and Halmaheran languages. Given the (pre-)historical trading relationships between the AN Biak-Numfor people and their relatives on the Raja Empat islands, and further west and south (Halmahera and Seram), with the NAN Tidore and Ternate, it may not be accidental that the endonym Moi of the Mansim is equivalent to the endonyms of the ethnolinguistic groups around Sorong and the NAN group on Makian (Taba's neighbours). Another sign of contact between the NAN languages of Halmahera and the eastern Bird's Head is the word for 'canoe': Tidore has *oti*, Mansim has *ot*, and Hatam *ud*, while just about all the intervening AN and Papuan languages have some reflex of AN **wangka*, for example, AN Biak and Taba have *wa* and Papuan Maybrat *wiak* or other forms, such as Abun *kwem* and Moi *kama*.

While I keep using the qualifying terms AN and NAN, the linguistic data betraying these trading and migrating patterns involve languages of both groups. For example, Taba causative prefix *ha-* clearly reflects Proto Austronesian (PAN) **pang-*, parallel to Numfor-Biak *fa-* (correspondence Taba /h/ and Biak /f/ also in 'four': Taba *hot*, Numfor *fiat*; and 'seven': Taba *hit*, Numfor *fik*). Compare Taba (Bowden 1998:235–242) and Biak-Numfor (van Hasselt 1905:13): Taba: *n=mot* '3SG=die' versus *n=ha-mot* [namot] '3SG-CAUSE-die' = 'he turned the lamp off'. *n=ha-bulang* [nabulang] '3SG-CAUSE-white' = 'he

whitened (something)'; Biak-Numfor: *kak* 'to be afraid' versus *fa-kak* 'to frighten'; *sna* 'light' features in *fa-sna* 'to show', thus 'cause to become light/clear'. This AN feature has been adopted by Mpur (see Chapter 2, §4.5): *yep* 'dry' versus *fa-yep* 'make (s.t.) dry'. Further it is remarkable that Hatam *ha-* 'be, do' operates rather similarly in some contexts to a homophonous form in Taba *ha-*, which Bowden labels a classifier for measuring things. Compare Hatam *ya-ha-gom* '3PL-do-one' = 'they all' and Taba *ha-so-le* 'CLASS-one-only' = 'all' (see Bowden 1998:298–300).

A comparison of the full paradigmata of spatial deictics (i.e. demonstratives and directionals or elevationals) would be necessary to understand how the different languages of the region are related or how they have adopted (parts of) each other's systems. But some remarkable facts may point to some connection between both AN and NAN languages of Makian and the eastern Bird's Head.

NAN West Makian (with its endonym Moi) shares *si-ne* 'here' with its AN neighbour Taba 'PL-PROX', thus meaning 'these' (as opposed to *i-ne* 'SG-PROX') (Voorhoeve 1982:18), which is also found in Numfor, while the distal deictic is *si-d(i)a* 'PL-DIST' = 'those' in Taba and *soma* 'there' in West Makian. The deictics *ni* 'PROX' and *ma* 'DIST' are also found in Hatam. In fact, *ni* or *ne* is 'proximate to Speaker' throughout the area, except in Abun, where *ne* is 'middle distance' contrasting to *re* 'near' and *tu* 'far' (Berry & Berry 1999:71), but distal deictics have a wide variation in phonological realisation. The form *ma* is found in Hatam *ma* 'that' and in Meyah (*u*)*ma* 'middle distance', but not in Sougb. It does feature in various functions in Mpur (see Chapter 2), but not in adjacent Abun. It also features profusely in Moi and North Halmaheran languages (see Reesink 1998).

In Numfor pronouns can be attached by *ani* reflecting an anaphoric sense (van Hasselt 1905:38). Steinhauer (1985:477) mentions that possessive pronouns in the Sau'i's dialect of Biak can have *-an*, explicitly indicating that the entity possessed is known to the hearer. Interestingly, Bowden (1998:321) gives *a-ne* 'here' and *a-dia* 'there' for Taba, and remarks that the prefix *a-* does not occur anywhere else in the Taba morphology. Could this form reflect some borrowing from related Biak, or is it an older form of South Halmahera West New Guinea, still present in both languages, but still being productive in Biak and fossilised in Taba? The pronominal forms van Hasselt lists for Numfor are: 1SG: *yani*; 2SG: *bani*; 3SG: *biani*; 1PL: *kobani*; 2PL: *mgobani*; 3PL: *sani*. Some of these turn up in the languages Hatam and Sougb: both have *dani* for first person singular; 2SG: Hatam *nani*; Sougb *bani*. Given the aberrant 2SG form *b-* in Sougb and Meyah, and the morphological endings of the free pronouns in Sougb and Hatam, these facts suggest a borrowing from Biak-Numfor. And the only dual form in Hatam is *sani* for first person, strikingly identical to Biak-Numfor 3PL, while Sougb has a fully developed dual system, in which the vowel *a* signals the number category. It seems likely that the Mpur determiner *bani* ~ *wani*, which signals some topical function, is a loan from Biak-Numfor.

There may be another AN feature present in Hatam. There are many lexical items with syllabic homorganic nasals preceding a CV(C) syllable. A number of them seem to be related to items without such nasals, as for example *ngkwei* 'return' and *kwei* 'come'.

In Reesink (1998) I noted the correspondence in contrastive forms between (AN) Biak-Numfor *m-kak* 'to be afraid' and *fa-kak* 'to frighten' and (NAN) West Makian *ma-gey* 'to die' and *fa-gey* 'to kill'. Bowden reports (from Jacqui Whisler n.d.) *m(a)-* as fossilised in Taba, but as still productive in Sawai. The diachronic explanation of Nasal + Consonant clusters in Taba is clear. Through the process of post-nasal syncope, the stative deriving prefix **ma-* is reduced to *m-* in many South Halmaheran languages (Blust 1998), yielding

forms like *mnihis* 'be thin'. Numfor-Biak (van Hasselt 1905) seems to maintain the contrast *ma-* 'stative/process' versus *fa-* 'causative' as productive (reflecting PAN **pang-* and **mang-*, as given by Tryon 1995:22). Could the considerable number of prenasalised verbs and nouns in Hatam have a similar origin? Compare *kes* 'to drop, let go' and *ngges* 'to drop, let go', which some of my consultants accepted without a noticeable difference in meaning, while one claimed that *ngges* referred to an involuntary action and *kes* to an intentional one.

For many of such pairs, however, no semantic relation seemed to be plausible. Other instances of items with homorganic nasal-stop sequence lacked a nasal-less counterpart. If this feature could conceivably be taken as an argument for a basically AN nature of Hatam, it would at least be very strange that a highly diagnostic feature for AN languages in eastern Indonesia is totally absent in Hatam or other Bird's Head languages. This concerns the *CaC*-variant of the general AN *Ca-* reduplication pattern, which mainly forms instrumental nouns out of verbs, according to Blust (1998). Responding to Bowden's information on the *CaC*-reduplication in Taba and other AN languages in the Moluccas, Blust (1998:49) wonders if the facts in South Halmaheran languages are related to the general process he described for the AN *Ca-* template or that they are products of an independent history. Whatever the answer to that question, it is clear that the *CaC*- template connects Taba with Ma'ya, spoken on Salawati, and Biak-Numfor. The ubiquitous term for 'clothes' throughout the Bird's Head is *sansun*, clearly formed as a *CaC*- reduplication, as suggested by Lex van der Leeden (see Reesink 1998:611). Many such items can be found in van Hasselt and van Hasselt (1947), as for example, *kun* 'burn' and *kankun* 'fireplace'.

Now, other than the obvious loan *sansun*, no such pattern can be found in the Bird's Head languages. Some reduplication involving the vowel *a* replacing any stem vowel can be observed, but this involves a final *-CaC* template, not an initial one, and the semantic result is not an (instrumental) nominal, but an adjectival or verbal intensification, as in Hatam *kinei* 'bad' > *kinei-kinai* 'very bad' and Maybrat *frit* 'move' > *frit-frat* 'be busy' (Dol 1999:54).

4.9 Meyah, Sougb, Hatam, Biak: verbal adjuncts

In addition to the morphological material in §4.1–§4.7, which can be considered to be evidence for a genetic relationship, and the lexical material in §4.8, which is given to illustrate contact within the eastern Bird's Head and outside, one interesting semantic-syntactic feature deserves some comment here, even though I have presented it before (Reesink 2000). Meyah (see Chapter 3, §3.4.2), Sougb (see Chapter 4, §3.9) and Hatam (Reesink 1999:73) all have two adverb-like elements which add a specific semantic value or valency, in the case of intransitives, to the main verb with which they occur. Simple glosses for these elements are not easy to give, but one communicates something like 'hold onto, with force', while the other is glossed in local Malay by the term *pele*, meaning 'block, shield off'. Such constructions are not found in Mpur, but Biak exhibits some striking parallels, even in the forms of the adjuncts. The forms operating in the various languages are:

	hold onto; press	block, shield off
Meyah	<i>keingg</i>	<i>joug</i>
Sougb	<i>deb(-in)</i>	<i>dougwo</i>
Hatam	<i>kep</i>	<i>ser</i>
Biak	<i>epən</i>	<i>wark</i>

In all these languages the verb 'stand' or 'sit' with 'hold on, press' means something like 'trample', or 'keep sitting on' as Meyah (see Chapter 3) *ot keingg rua* 's/he oppresses them', Biak *aref epən kau* 'step on shit' or adds some durative aspect, as in Hatam *ya kep* 'keep standing', and Sougb *esa deb* 'keep standing'. The verb 'stand' or 'sit' with 'block off' means something like 'guard, watch', as Meyah *ot joug efesa* 's/he guards his/her child', Sougb *esa dougwo mehi* 's/he guards his/her child', Hatam *ya ser hanjop* 'guard the area', *gwam ser* 'hold a wake', Biak *enef wark* 'sleep guard' (Wilco van de Heuvel, pers. comm.). It is clear that Meyah *joug* and Sougb *dougwo* are cognates. The other forms are not as clear. Sougb *deb* and Hatam *kep* may be related, but so could Biak *epən*. Since both adjuncts appear entrenched in the three EBH languages, being very productive with a great variety of verbs, I consider it a mini-areal feature, which has spread into Biak-Numfor, presumably through the extinct Hatam relative Mansim, which has been the major language of contact between the EBH and Biak-Numfor (see Chapter 5). As pointed out in Reesink (2000) Abun has a similar semantic configuration of 'sit' with some element (in this case a form *wa* labelled Transitivity (Berry & Berry 1999:26–28)) to convey 'guard' or 'holding a wake'. Since such a configuration is absent in Mpur or western Bird's Head languages, I would consider it a Biak calque in Abun, and considering the form, perhaps even a loan. These facts suggest a similar route for this feature as the one I suggested for the verbaliser *ebe ~ βe ~ bi*, given in §4.5: an inherent feature of the EBH languages was borrowed by AN Biak-Numfor, subsequently adopted by a loan calque in NAN Abun.

Thus, in the preceding sections I have offered some morphological peculiarities shared by the languages of the eastern Bird's Head. These data, together with the material presented in §2, concerning pronouns and a few lexical similarities, which transcend the eastern half of the peninsula, seem to allow the tentative conclusion that there is indeed a distant relationship between the EBH languages in particular and between the Papuan languages of Halmahera and the Bird's Head in general. That the eastern languages are quite different from those to the west of the Kamundan and Weriagar, is not surprising considering the natural barrier which these two rivers constitute. In both areas, however, the most northern languages, Abun in the west, Mpur in the east, seem to have the least in common with their relatives. Significantly, these two languages both have phonemic tone.

But I have also shown a number of lexical similarities which are suggestive of massive and longlasting contact between these languages. The next sections review some non-linguistic data that illustrate the degree of contact.

5 Historical origins

In the introduction I mentioned a few accounts of the oral history which suggest that Hatam, Sougb and Meyah all originated in the area between Bintuni and Merdey. Various authors agree that the area of origin of these groups is somewhere near the upper reaches of the rivers Meyof (or *Duhu inyom*), Meyah (= Rawara) and Tetahu (= Wasian) (see Pouwer 1998:173; Pans 1960:40, 47; Miedema 1998:221, quoting the administrator Bergh). Miedema (1984:152) suggests that the Kebar (= one of the Mpur-speaking groups) originate from the mountains south of the Kebar plains and that the Mpur kinship system is closely related to those of the ethnolinguistic groups Hatam, Moiree (= Hatam dialect) and Manikion (= Sougb).

It would appear reasonable to hypothesise that the limestone hills in the middle of the eastern Bird's Head were the original homeland of the Mpur, with the other groups as their immediate southern neighbours. The lower ranges of the Arfak mountains and the coastal areas around present-day Manokwari must have been inhabited by the Mansim (known by their endonym *Moi* and the Hatam exonym *Moi brai*) (see Chapter 5).

The earliest written historical sources are from European explorers who began to visit the area in the seventeenth century. They already found that the sultanates of Ternate and Tidore with their vassals of the Raja Empat islands had trading interests along the south coast of the Bird's Head, and claimed settlements along the north coast into the Cenderawasih Bay (see for example Kamma 1947–49; Swadling 1996:33; Huizinga 1998). Some sources suggest that the connections between Halmahera (in particular Tidore) and the coastal areas of the McCluer Gulf on the one hand, and the Biak-Numforese on the north side of the Bird's Head on the other are even older. Haenen (1991:8) quotes Kamma who claimed that Biak-Numfor migrations to the west dated from before the end of the fifteenth century.

Although the exact date of the migrations in the eastern Bird's Head is not known, Pans (1960:31) mentions that the first Hatam people arrived in the Mansim area north of the Doreh Bay around 1860. This does not imply that the Hatam had stayed at their origin ground near the Sebyar and Rawarra junction (Pans 1960:41). Presumably, they had already moved from there to the headwaters of the Prafi and the Wariori, while the Meyah had moved more directly to the north, and the Sougb to the east: near the Anggi lakes and the plains to the south. It could be that due to these migrations, the Mpur were driven ahead of the Meyah to the north, settling in and around the Kebar plains, with the Meyah continuing east of them to the north coast, until they too arrived in the original Mansim area.

If indeed the dominancy of the Raja Empat islands over the coastal areas of the McCluer Gulf, evidenced by trading relationships (Sollewijn Gelpke 1994), including slave raids (Haenen 1998:236), had been going on since the fifteenth or sixteenth century, the first migratory movements away from the south coast into the safer reaches of the central limestone hills and further into the mountains (north and east) could well have started a few centuries ago.

Not only were there extensive intergroup relations within the Bird's Head. Kamma (1947–49:545ff.) mentions that in the first part of the sixteenth century the sultans of Tidore, Ternate and Bacan formed an alliance with the Papuan kings (i.e. the rulers of the Raja Empat islands, who were AN speakers) to dispell the Portuguese from the Moluccas. Later that century, the Dutch found that old trading relations must have existed between the Moluccas and the territories of the 'Papuan islands' (see, for example, Goodman (1998) on the intermediary position of Seram in the trading between the Moluccas and western Irian Jaya). Various products from Papuan territories were found, one of them slaves from the land of the Papuans. As Bergh (1964:47) notes, when slavery was abolished at the end of the nineteenth century, a few thousand slaves were released at Ternate and Tidore. The relationship between Tidore and Ternate with the Raja Empat islands and the the rulers of Onin (across the McCluer Gulf) have been well documented. They procured birds of paradise and massoy bark, as well as slaves, from the south coast of the Bird's Head. Given the extensive and old contacts of the Biak-Numfor people with the Raja Empat islands, Seram and Halmahera (Kamma 1947–49:365–372), it is not implausible to assume that some of these products, including slaves, originated from the north-east coast of the peninsula, so that many people from around the coast of the Bird's Head had been moved as slaves to Halmahera and the smaller islands around it. Perhaps the fact that the name *Moi* is applied

not only to the Mansim near Manokwari, but also to the ethnolinguistic group around Sorong as well as the NAN on Makian (Bowden 1998:5), is not an accident. In the final section I try to give a general description of the nature of the Bird's Head languages, related to the reported migrations and the centuries old influence of Austronesians.

6 Inter-ethnolinguistic marriages

Pouwer (1958:42–43) gives some statistics of mixed marriages among the Hatam (equivalent to the major Hatam dialect group Tinam), the Moiree (equivalent to the other large Hatam dialect, called Moile, or Miriei) and the Manikion (equivalent to the Sougb) near the Anggi lakes. Roughly thirty to forty per cent of the marriages involved a foreign partner. Pouwer does not specify which partner is foreign. The Moile and Tinam have the highest number of intergroup marriages. In linguistic terms, these would hardly qualify, since the two speech communities are mutually intelligible. But the frequency of intermarriages between the Hatam (= Tinam) and Sougb is considerable in both directions. Much less, but still significant, are the number of marriages among both the Hatam and Sougb involving a Meyah partner. Pouwer's conclusion (p.43) is that interethno-linguistic contact has been far more intensive than the asserted sense of in-group identity he observed from informants. Given the 2:1 ratio of patrilocal versus non-patrilocal (= either matrilocal or bilocal) settlement among the Sougb, Tinam and Moile (Pouwer 1958:26–29), one can assume that about two-thirds of the 'foreign' partners (foreign in relation to the territory in which the household was settled) were women.

In other words, it wasn't just the women who migrated in this area. For some adjacent groups, for example, Miedema (1984:124, 130) mentions that a man from the Kebar (an area mainly populated by Mpur speakers) clan Anari was able to trace his origins to eight generations back, to a woman who lived 'near upper-Bintuni'. A grandson of this ancestral woman belonged most likely to the Anason. These data indicate a migration about 200 years ago of people from the south (roughly the area believed to be the homeland of the Meyah, Sougb and Hatam), who by now had totally integrated in the Kebar (= Mpur-speaking) group. The linguistic data provided by Miedema (1984, Appendix 5) suggest that the Anason are a dialect group of the Meyah. Thus, these Meyah men had married Anari women, moved further north into the Kebar plains, until they had become full members of the Mpur kinship groups.

At other places, Miedema states (1984:119) that more Mpur women are married to the Meyah than vice versa, and that both Mpur and Meyah married more women from the area to the west than vice versa. This western area Miedema refers to by the names Karon and Ayfat, presumably referring to the Karon Dori (= a Maybrat dialect). However, although the Kebar claimed to have married Karon (female) slaves and not vice versa, Miedema reports (p.123) Karon informants telling about raids in which they killed Kebar men and took Kebar women, selling them as slaves to the north coast.

Another 'clan' of the Kebar plains, called the Miun (again the linguistic data suggest a Meyah dialect) kept intensive marriage contact with the southern Karon-Ayfat area (Miedema 1984:120). These data suggest that some of the Meyah had 'infiltrated' the Mpur, and that both original Mpur and these Meyah descendants acquired women from the Maybrat. Significant in this context is the information given in the story about the Maybrat culture hero Siwa (Dol 1999, Appendix III). Siwa had cut off the head of his mother and

brought it to his sister in Meyah country. At some place in between some old woman smelled something rotten, found it was a decaying head, got angry and caused a flood, which chased Siwa to the land of the Meyah and the Kebar (Mpur).

Other evidence for migrating Maybrat and Moskona (= Meyah dialect) is provided by Bergh (1964), as quoted by Miedema (1998:221). Various Sougb people came originally as foster-children from the Maybrat, corroborated by evidence in Jonathan Ahoren's account of adopted children among the Sougb (see Chapter 4, Appendix 2). Whereas Moskona men married Sougb women, the reversed direction did not occur. Moskona women were too expensive. No doubt, the main reason was that the payment was to be done in the form of *kain timur* (literally 'cloth east' which are pieces of cloth imported from the island of Timor into the Bird's Head and circulated there as valuable items used in all kinds of payments, especially brideprices). The Moskona were closer to the source, since *kain timur* came into the eastern Bird's Head from the south-west, as Miedema concludes (1998:222). But in relation to the Meyah, the Moskona were the poor in *kain timur*, so that Moskona girls were 'sold' to the Meyah in exchange for the cloths.

This short summary of inter-ethnolinguistic marriage relationships should suffice to appreciate the level of contact between the language groups of the eastern Bird's Head and further west (the Maybrat and, possibly, the Abun).

7 The nature of the eastern Bird's Head languages

As I have mentioned a few times before, even though the evidence is rather slim, it does not seem unreasonable to assume a distant genetic relationship between the five languages of the eastern Bird's Head as well as with the languages of the western part of the peninsula and North Halmahera. But this genetic relationship goes back over such a time-depth, during which various languages have moved so far apart that they can be seen as virtually isolated small families or individual languages. If we restrict ourselves to the eastern part, we see that there are three groups: (1) Mpur by itself, (2) Hatam and its close relative Mansim, and (3) Meyah, its dialect Moskona and Sougb.

From the historical and anthropological data it appears that the Mpur originate from the centrally located lower limestone hills from where they moved to the north until they reached the Kebar plains and further north to the coast, where the dialectal variant Amberbaken is spoken. The Mansim originally inhabited the coastal plains around present-day Manokwari, as far inland as the Kebar plains, and the foothills of the Arfak mountains (see Chapter 5). A few centuries ago, first the Hatam, and later the Meyah moved from the area where the Rawara and Sebyar rivers meet to the north-east and north, where they took over much of the Mansim area. Presumably, the Hatam made their first move to the headwaters of the Wariori, from where they moved further north and east, towards the coast. The Mansim had already been mingling with the Biak-Numforese who entered the Manokwari area from the sea. Now they also faced intrusion from their 'relatives', the Moile (or Miriei) and Tinam dialects of Hatam. The Sougb finally moved more eastwards and then turned to the south, occupying the area between the Anggi lakes and Bintuni.

In §6 I have shown that all these linguistic groups have known many interlinguistic marriages. In addition, for centuries they have had contacts with surrounding AN speakers, the Wandamen in the south-east, people from the Raja Empat islands and from across the McCluer Gulf in the south, and the Biak-Numforese in the north. These sociopolitical

conditions have had a considerable influence on the nature of the languages spoken in this area.

At the level of coffee-table talks about the languages of the Bird's Head and Halmahera, characterisations like 'these languages are rather creole-like' can be heard. But, of course, when it is difficult, if not impossible, to define criteria for creole languages, this lacks any theoretical value. For example, the attempts by Bickerton (1981:51–72), Romaine (1988:47–69) and more recently McWhorter (1998) to set up defining criteria for creole languages, are easily defied by similar features in non-creole languages, as for example by Collins (1980) with regard to Moluccan Malay, Holm (1988:147), Muysken (1988:300) and recently DeGraff (1999:11) in general. What are the features, though, one could ask, that trigger such pre-theoretical evaluation? Basically, I think, it is a reaction to the rather 'simple' structures one encounters in these languages, such as predominant CV(C) syllable structure, a five-vowel system, a dearth of morphological complexity, except for subject and possessor prefixation of verbs and inalienable nouns, lack of tense-mood-aspect marking, SVO word order and asyndetic conjunctions, suspiciously similar to what are known as serial verb constructions, and so on. But many of these features correspond to general characteristics of AN languages as opposed to Papuan (Foley 1998). Are we dealing then with a group of AN languages? Phrasing the question this way points towards a fruitless search for an essentialistic classification. It would seem more helpful to chart various features which are predominantly available in what are known to be Austronesian languages on the one hand and those which are typical for the Papuan languages on the other hand. The label 'Papuan' then refers mainly to the largest grouping for which increasing evidence has become available, the Trans New Guinea Phylum (see Pawley 1998). In other words, I will not try to state what the 'basic nature' of the EBH languages is in terms of whether they are 'originally' AN or Papuan. Instead, I will summarise a number of features from both stocks which to a greater or lesser extent are present in the languages of this area.

7.1 Phonology

All EBH languages have a five-vowel system: *i, e, a, o, u*. The close relatives Meyah and Sougb stipulate a remarkable constraint on the initial vowels of verbs, where only *e, a* and *o* are allowed. The predominant syllable structure is CV.CV(C). Voicing opposition for consonants is not very stable in any of the languages: in word-final position it is lacking altogether, and in other positions conditions of stress seem to determine whether or not the opposition is maintained. The languages have only one liquid, realised as either [r] or [l]. Fricatives are present, either as phonemes, / ϕ /, /s/ and /h/ or as allophones. Mpur clearly has phonemic tone, Meyah and Sougb a pitch-accent system. Hatam and Mansim do not have a tonal distinction, which they may well have had in the past (the number of homophones in Hatam is considerable), but Hatam does have a very pronounced iambic stress pattern over the utterance as a whole, defying attempts to determine a pattern of word stress.

None of these features can be pinpointed as clearly AN or Papuan, except perhaps the lack of phonemic distinction between the liquids as being Papuan.

7.2 Morphology

The clearly AN reduplication pattern of pre-stem template *Ca(C)-*, where the vowel *a* replaces any stem vowel, is definitely not available in EBH languages, nor, for that matter, in other languages of the peninsula. A reflex of PAN causative or transitive *pang-*, as opposed to intransitive *mang-*, is clearly productive in AN languages of the area around the Bird's Head, but as *fa-* only in just a few items in Mpur and possibly as *ha-* in some Hatam words.

Gender is definitely not an AN feature. Mpur distinguishes feminine and masculine for third person singular. None of the other languages exhibits gender the way western Bird's Head languages (except Abun) do, but, as I suggested earlier (Reesink 1998:621), the masculine bilabial stop and the feminine bilabial nasal of the western Bird's Head appear to be split between Meyah third person possessive *ef-* and Sougb *me-*.

The AN inclusive-exclusive opposition for first person plural (or dual) is firmly entrenched in Meyah and Sougb, but only partially in Hatam (no opposition in free pronoun) and altogether absent in Mpur.

Whereas both Papuan and AN languages typically express mental and emotional states by means of an (inalienable) body part term plus a qualifying adjective or verb, basically only Papuan languages have what I call 'experiential verbs' (= 'uncontrolled states' in Foley 1986:123).⁶ In such verbal constructions the experiencer is marked by the regular object affix while the subject is typically an inanimate entity. Of all the Bird's Head languages, only Sougb, and to a somewhat lesser extent Meyah, employ such constructions for just a few mental or physiological states. Significantly, some of the far western relatives on North Halmahera, also have 'experiential verbs', even though there are some clear differences. In North Hamaheran languages the position of the object affix is preverbal rather than postverbal, as in the EBH languages. Also, the North Halmaheran languages do not seem to employ a generic verb in addition to the element functioning as the syntactic subject. Compare Galela (47), from van Baarda (1908:81), and Sougb (48):

(47) *I na sapi.*
3SG 1INC hungry
We are hungry.

(48) *Sr-eb-ema.*
hunger-do-1INC
We are hungry.

If such constructions had been available to all the NAN languages of the Bird's Head and Halmahera, it is clear that most of them have lost them. For example, in Mpur and Hatam 'to be sick' or 'to be hungry' is expressed by regular intransitive verbs.

In AN languages, inflectional morphology is very weakly developed or completely lacking, and Tense-Mood-Aspect categories are generally expressed by preverbal particles. Generally, this holds for the NAN languages of Halmahera and the Bird's Head and is the main trigger for pre-theoretical notions as 'creole-like'. While all these languages have subject prefixation, there are only a few Bird's Head languages that have some aspectual or modal affixation (Meyah and Sougb). The modal category especially is firmly evidenced by

⁶ However, there are a few AN languages surrounding the Bird's Head, such as Central Maluku Asisulu and Bandanese (Collins & Kaartinen 1998), and Waropen (Held 1942) along the Cenderawasih Bay, that have similar constructions.

the requirement that verbs in negative sentences are marked by it. A rather peculiar feature is the instrument prefixation in Meyah, Sougb and Hatam, albeit by forms which are not clearly genetically related. Again, there is some evidence that the NAN languages of Halmahera had a similar category which developed a more general causative meaning (Fortgens 1928:365), suggesting that this may be a feature linking all NAN languages of the area, which can not be related to either AN or Papuan (in the sense of TNGP languages).

7.3 Syntax

The most illustrative feature of the languages under consideration is the so-called 'reversed Genitive-Noun order', which has traditionally been invoked to determine the NAN status of the Halmaheran languages (van der Veen 1915:92–102). In the eastern Bird's Head, it is Mansim which seems to have adopted the AN Noun-Genitive construction from Biak-Numforese, while Hatam and Meyah have it available as an alternative to the canonical Papuan order (Reesink 1999:81). The other languages all stick to the Papuan order. It is this order which has found its way into the local varieties of Malay, as in *sa-pu-anak* 1SG-POS-child 'my child'.

The basic order of elements in the noun phrase is for all languages left-headed: N-A-NUM-DET. Only a number of North Halmaheran languages have some pronominal element functioning somewhat as noun marker or article. The determiners in the EBH languages are all spatial deictics, some of which have taken on more anaphoric or textual deictic functions.

The constituent order SVO is most likely due to AN influence, given the presence of SOV in the North Halmaheran languages. Unlike for example, the SOV order in some AN languages, which can be explained by neighbouring Papuan languages, there are no adjacent languages which could have lent this order to the Halmaheran relatives of the Bird's Head languages.

Only Meyah, Sougb and Hatam pose a constraint on intraclausal expression of the instrument. These languages correspond in placing the instrument in some kind of preclausal position, which is then cross-referenced by a verbal prefix.

Apart from this special treatment of the instrument in these three languages, there are other syntactic phenomena for which a widespread calquing seems to be the most likely explanation. Although nominal objects (or subjects) can easily be left unexpressed in a discourse, when no referent is retrievable a generic object is required in these languages. Thus, the equivalents for something like 'Have you eaten already?' are very similar, not only because of the nominal compound meaning 'food' in three of the four languages, but also because of the sentence-final aspectual adverb and the cliticised question marker *e*, implicating a positive answer. Consider the following examples:

Mpur:

- (49) *An-det bar-et pa=e?*
 2SG-eat something-eat already=Q
 Have you already eaten food?

Meyah:

- (50) *Bua b-et mar-et job=e?*
 you 2SG-eat something-eat already=Q
 Have you already eaten food?

Sougb:

- (51) *Ban b-et ar-et hob=e?*
 you 2SG-eat something-eat already=Q
 Have you already eaten food?

Hatam:

- (52) *Nani a-yem njinta tu=e?*
 you 2SG-eat food already=Q
 Have you already eaten food?

In all EBH languages, and in this they agree with their (distant) relatives in the western half, but not with those on Halmahera, no three-place verbs are available. Thus, double object constructions, which are claimed to be diagnostic for creoles (Bruyn, Muysken & Verrips 1999), are not allowed. In fact, it is invariably a verb with the basic meaning 'take', which together with a preposition conveys the notion of 'give', as illustrated by the following equivalents in the various languages:

Hatam:

- (53) *Dani di-yai wid gom bak noni.*
 I 1SG-take banana one to 3SG
 I gave him/her a banana.

Mansim:

- (54) *Danu d-eri wat wom mai nenu.*
 I 1SG-give banana one to 3SG

Sougb:

- (55) *Dan d-eic neij hom dou en.*
 I 1SG-take banana one to 3SG

Meyah:

- (56) *Didif d-eita menei egens gu ofa.*
 I 1SG-take banana one to 3SG

Mpur:

- (57) *In n-bot fa tu na yeta.*
 I 1SG-take banana one to him

It is no surprise then that the local Malay expression follows closely the same configuration, the only difference being the order of noun and numeral, as seen in:

Malay:

- (58) *Saya kasi satu pisang sama dia.*
 I give one banana to him/her

The languages of the eastern Bird's Head share the strictly sentence-final position of the negator with the AN languages in the Cenderawasih Bay, as well as with the Halmaheran languages (Reesink 2000). In languages of the western Bird's Head the final position appears to be less strict, although there also the negative adverb is never found directly preceding the predicate. In AN languages, the negator generally precedes the predicate in a SVO clause. In Papuan languages it normally precedes the predicate in a SOV clause,

although there are Papuan languages in which a strictly sentence-final negative is present either as a non-verbal variant of the standard verbal negation, as in Sentani, or as the standard, as in Dani and Asmat. Thus, this typologically unusual feature seems to be of Papuan origin. It seems to be significant that the form *βa ~ wa* in the AN languages Biak and Wandamen is the same as the one found in the Halmaheran languages, while AN Ambai of the Cenderawasih Bay has *kaka*. I conclude that both the position and the form originate in the NAN languages of the Bird's Head, as evidenced by Mansim *bar ~ Hatam big* (see Chapter 5) and Halmahera, and that it found its way through diffusion into the AN languages.

Finally, the typical Papuan feature of clause chaining, with widespread switch reference mechanism, is totally absent in the languages of the Bird's Head and Halmahera. A rather 'flat' syntax of asyndetic coordination (or serial verb-like constructions) is typical for all the languages of this area.

7.4 Conclusion

It should be clear, that the languages of this area are characterised by a patchwork of lexical retentions and borrowings. Some morphosyntactic properties show a similar ragged picture. Although many of these languages exhibit structures that could be (near) calques of each other, their vocabularies are for the most part wildly different, as stated and illustrated in various publications (Voorhoeve 1987a, 1987b, 1989; Reesink 1996, 1998). In the light of what we know from the historical sources, quoted earlier, and the anthropological data on migrations and interlinguistic marriage patterns, it would not be unreasonable to assume that the area of the Bird's Head and Halmahera has been the scene of extensive intergroup contacts during many centuries. For example, it is quite plausible that a considerable number of the slaves (thousands were released on Ternate and Tidore in 1870, as mentioned earlier) originated from the eastern Bird's Head, presumably of the Mansim and/or Hatam, having been brought there by the Biak-Numfor trading partners of the sultanates of Ternate and Tidore.

Within the eastern Bird's Head we have seen migrations from the south side of the lower limestone hills into the Arfak mountains (Hatam), and skirting these mountains to the north, as far as the north coast (Mpur and Meyah), and towards the north-east (Sougb), bordering the Wandamen, who are AN relatives of the Biak-Numfor.

With Pouwer's observation that at least the people of the eastern Bird's Head are very conscious of their identity in terms of explicit statements about in-group and out-group belonging, we may conclude that the enormous differentiation in their vocabularies has been brought about by (conscious?) manipulation of lexical items, while the homogeneity of morphologically simple syntax is the result of personal contacts during many generations.

Although so far I lack specific information on the (eastern) Bird's Head languages, older sources on Numfor (van Hasselt 1905:54) and Galela on North Halmahera (Van Baarda 1908:11) mention a rather strong practice of word taboo. Words that closely resemble the sound of a deceased relative or an in-law are systematically avoided. Thus, doublets, loan words, and possibly other devices to circumvent the forbidden lexical items, must have abounded in these languages. I think it is safe to assume that this practice was also followed in the Bird's Head. Perhaps, the information from one of my Hatam consultants that the

original Hatam word for 'sun' was identical to the Mansim word *pro*, and that the present Hatam item *mpiab* means something like 'event' (see Chapter 5), can be explained this way.

I believe that my earlier scenario (Reesink 1998), which tried to account for the dearth of lexical correspondences and the close similarities in morphosyntactic configurations in the languages of the Bird's Head (and Halmahera), has gained some additional evidence. The information from historical and anthropological sources makes it quite plausible that the ethnolinguistic groups have always maintained a strong sense of group identity. As Dixon (1997:24) points out, people are more aware of the lexicon as an index of their group identity than of grammatical categories. At the same time they have had many friendly and hostile interactions, by which many individuals changed places and linguistic environments. Properties of morphosyntactic organisation are much more automatic in the speech process. Apparently, they are easily copied in situations where multilingualism is the rule rather than an exception.

This process has been termed 'metatypy' by Ross (1996), which he prefers to Thomason and Kaufman's 'borrowing'. The term 'borrowing' does not capture the extent to which the in-group (= 'emblematic' in Ross's terms) language survives with heavy restructuring due to contact with a neighbouring or intergroup language. Since the small languages on the island of New Guinea have had many opportunities, over long periods of time, to be in close contact with other languages, it is important to differentiate form/meaning correspondences signalling genetic relationships and metatypic correspondences due to contact. Ross says (1996:208): 'Whereas form/meaning correspondences peter out at the time-depth where lexical replacement becomes close to total ... metatypy often ensures that particular semantic and structural features continue in a particular area over seemingly immense periods of time'. And further (p.209): '... as semantic and structural features become more and more generalised across a region through metatypy, it is decreasingly feasible to sort out the detailed contact histories of the languages in which these features occur'. I cannot find a more apt wording to describe the situation found in the eastern Bird's Head and surrounding area.

The outcome of these processes, taking place during a time of equilibrium between languages of basically the same status (Dixon 1997:68–70), is a group of language communities which have to a large extent levelled their morphosyntactic complexities while increasing their lexical divergence. In other words, a prolonged period of inter-ethnolinguistic contacts may affect languages in ways similar to the communicative pressures which give rise to 'canonical' pidgins or creoles. Children growing up in a context where adults speak different languages, will tend to employ the dominant vocabulary they hear around them according to the more automated, subconsciously processed structures they have acquired. Not only does this process lead to initial variation in acceptability, it also results in levelling of morphosyntactic difference, requiring some loss, such as the hypothesised loss of the gender distinction in EBH languages, as well as some gain, such as the inclusive-exclusive opposition. Perhaps, the general persistence of SOV order in the northern Halmaheran languages and the more complex verbal affixation in Meyah and Sougb are signals of greater conservatism in languages which have had less contact with others, especially AN speakers, than the other languages of the area.

Appendix

Comparative wordlists of four eastern Birds' Head languages

The list for Meyah has been provided by Gilles Gravelle, Mpur by Cecilia Odé, and Sougb and Hatam are from my own fieldwork. Concerning the Sougb material, I am grateful to Dan and Barbara Lunow for filling in some holes in my data and suggesting some corrections. Since all languages have a base-five counting system, I have singled these terms out. Also, some food crops, presumed to show borrowing, are shown. When just items glossed with 'say' or 'ask' are given, it is not clear which specific meaning is conveyed. Thus, I have tried to differentiate a few speech verbs which these languages employ. These semantic fields are followed by the standard 200-word Swadesh list, interspersed with some related terms, which I hoped would show evidence for sound correspondences. At various points additional comments have been given in footnotes. Nevertheless, it remains a difficult matter to simply list an English gloss, such as 'cut', 'down', 'there' and many others, and expect to find exact equivalents in various languages. In spite of the incomplete data, these lists are given to illustrate the divergent vocabularies of the EBH languages. Since a Mansim list would leave a great many holes, and since Hatam and Mansim are closely related, I refer to the short dictionary in Chapter 5, Appendix 3.

English	Sougb	Meyah	Hatam	Mpur A = Amberbaken K = Kebar
numbers				
*one	<i>hom</i>	<i>egens</i>	<i>gom</i>	<i>tu</i>
*two	<i>hwai</i>	<i>egeka</i>	<i>can</i>	<i>dokir</i>
*three	<i>homoi</i>	<i>juomu</i>	<i>ningai</i>	<i>denur</i>
*four	<i>hogu</i>	<i>tahkuru</i>	<i>bitai</i>	<i>bwat</i>
*five	<i>sergem</i>	<i>cinja</i>	<i>muhui</i>	<i>me</i>
some crops				
banana	<i>nejj</i>	<i>menei</i>	<i>wid</i>	<i>fa</i>
corn	<i>tram</i>	<i>metrem</i>	<i>trem</i>	<i>sare(A), kasam(K)</i>
sugarcane	<i>iji</i>	<i>meresa</i>	<i>nghai</i>	<i>up</i>
tobacco	<i>saboku</i>	<i>mosoku</i>	<i>sigu</i>	<i>sakum</i>
sweet potato	<i>augwu</i>	<i>mou</i>	<i>sieb</i>	<i>watiw</i>
cassave	<i>aiswai</i>	<i>monyana</i>	<i>sieb biei</i>	<i>wati ni</i>
sago	<i>at maga</i>	<i>medeb</i>	<i>kob</i>	<i>bi</i>
taro (<i>bete</i>)	<i>mundo</i>	<i>mom</i> (small type)	<i>ntigud</i>	<i>biw</i>
taro (<i>kongkong</i>)	<i>sunggebei</i>	<i>momos</i> (large type)	<i>minoi/mow⁷</i>	<i>kotawe</i>

⁷ The term *mow* is from Mansim.

some speech verbs

speech/voice ⁸	<i>mer</i>	<i>oga</i>	<i>ni-hyet</i>	<i>kwap</i>
say	<i>en</i>	<i>agot</i>	<i>pai</i>	<i>bwar</i>
speak/talk	<i>en-ara</i>	<i>agot</i>	<i>mbrap</i>	<i>bwar</i>
tell (a story)	<i>ecic</i>	<i>efesij</i>	<i>pui</i>	<i>bertobar</i>
order	<i>arougb</i>	<i>oga efet/agot rot</i> ⁹	<i>cuk</i>	<i>bwa-fu</i>
call	<i>eija</i>	<i>ois</i>	<i>hara</i>	<i>bwan</i>
to name	<i>en dag</i>	<i>oh/ejeka</i>	<i>jem</i>	<i>don</i>
shout	<i>eyaga</i>	<i>aharir</i>	<i>hara</i>	<i>at/jer/inkep</i>
ask (<i>tanya</i>)	<i>eija dougwo</i>	<i>ejeka</i>	<i>hig</i>	<i>bwanup/unan</i>
ask (<i>mint</i> a)	<i>acgeij</i>	<i>ois rot/erejgei rot</i> <i>esinmouk 'cry out</i> <i>for help'</i>	<i>hara</i>	<i>kenin</i>
beseech	<i>eiyagarij</i>		<i>weig</i>	
answer	<i>auni</i>	<i>oroun</i>	<i>birop/buhup</i>	<i>yewka</i>

Swadesh list *

about	<i>an</i>	<i>rot</i>	<i>tut/sut</i>	<i>(ku)tut</i>
accept/find	<i>ma</i>	<i>esma</i>	<i>ma</i>	<i>soma</i>
add	<i>ecic adedim</i>	<i>ogun</i>	<i>kum</i>	<i>kat/beraw</i>
again	<i>deit</i>	<i>deika</i>	<i>bu</i>	<i>fer</i>
agree	<i>ousa</i>	<i>oitij rot</i>	<i>ce tut</i>	<i>fujar tut/</i> <i>onsra tut</i>
*all	<i>-augwan</i>	<i>nomnaga</i>	<i>-hagom</i>	<i>masek</i>
also	<i>tou</i>	<i>tein</i>	<i>cem</i>	<i>(y)o</i>
already	<i>hob</i>	<i>fob</i>	<i>su/tu</i>	<i>pa</i>
*and	<i>dara/kaba</i>	<i>noba/gonu</i>	<i>ba/lene</i>	<i>braw</i>
*animal ¹⁰	<i>aremeta</i>	<i>oiraga (tail)</i>	<i>mindhe</i>	<i>bran/kam</i>
*arm (cf. hand)	<i>mesira</i>			
around	<i>acec</i>	<i>erejrej</i>	<i>tai/ghai</i>	<i>kabwaka</i>
*ashes	<i>m-or</i>	<i>of-oru</i> ¹¹	<i>pimbang</i>	<i>subup</i>
ascend	<i>eisaugb</i>	<i>osok</i>	<i>kui</i>	<i>fo</i>
*back (of body)	<i>-idgo</i>	<i>ejmeg</i>	<i>nghim</i>	<i>danfet/tanip/</i> <i>tanifet</i>
*bad	<i>ecgu</i>	<i>oska</i>	<i>kinei</i>	<i>wandek</i>

8 In Sougb, Meyah and Hatam the term is also used for 'language'. Mpur has a Biak loan with that meaning *wos*.

9 *Oga efet* 'voice harsh' = bark out an order; *oga oja rot* 'voice breaks concerning' = make a decision, implies ordering something to happen; *oga eris rot* 'voice splits concerning' close to *oga oja rot* : deciding in an arbitration; *agot rot* 'speak out concerning, decide, order' = expresses opinion that s.o should do s.t.

10 Languages generally lack generic term for animal. Meyah has *oiraga* 'tail' as classifier for animals, but fading from use. *Mar onnga ah gu merenrah* 'things that live in the forest' could be used. Hatam *mindhe-dhe* is parsable as 'something which (is) only-RED'. Not a true generic either.

11 Sougb and Meyah terms mean 'powder', also used for Meyah 'dust': *mebi oforu*.

*bark (of tree)	<i>sogo mos</i>	<i>mega ofos</i>	<i>ngkeg/hong</i>	<i>nifek</i>
*because (from)	<i>dau</i>	<i>jeska</i>	<i>leu</i>	<i>kutut</i>
bent	<i>agabi</i>	<i>ageb</i>	<i>koi</i>	<i>kijep</i>
*berry/fruit	<i>mera/m-eij</i>	<i>-efek</i>	<i>njeb/ngat</i>	<i>be</i>
*big	<i>goji/medam</i>	<i>eteb</i>	<i>ndig</i>	<i>(kam)pak/bapak</i>
*bird	<i>ba</i>	<i>mem</i>	<i>hab/sab</i>	<i>iw</i>
*bite (v.)	<i>au</i>	<i>eska</i>	<i>ham</i>	<i>yem/wok</i>
*black	<i>ogor(gor)</i>	<i>ahta</i>	<i>rom</i>	<i>nem</i>
blind	<i>-aires m-oug</i>	<i>eiteij ofou</i>	<i>tu</i>	<i>amkum</i>
*blood	<i>m-ogwihi</i>	<i>oguwu</i> ¹²	<i>nggrom</i>	<i>far</i>
*blow (of wind)	<i>ouhw(dedi)</i>	<i>okruc</i>	<i>hou</i>	<i>fok</i>
body	<i>m-aga</i>	<i>ef-aga</i>	<i>ngud/nghuig</i>	<i>(w)obem</i>
*bone	<i>m-ohori</i>	<i>of-ora</i>	<i>njum</i>	<i>ip</i>
*breast	<i>m-aric</i>	<i>engk</i>	<i>dob</i>	<i>sut</i>
*breathe	<i>mena (b)aic</i>	<i>ef-eni</i>	<i>muhun nei</i>	<i>fujaw</i>
*brother (older) ¹³	<i>m-agona</i>	<i>mokora</i>	<i>kindig</i>	<i>nkowa/binon</i>
younger	<i>m-agto</i>	<i>mokosa</i>	<i>kinjoi</i>	<i>nkunon/binon</i>
*burn (by fire)	<i>asaih</i>	<i>mah et</i> ¹⁴	<i>ndig</i>	<i>kapet/kupet</i>
carry	<i>oho (on back)</i>	<i>ok</i>	<i>ttei</i>	<i>dukwa</i>
on shoulder	<i>odo (in hand)</i>	<i>usap</i>		
*child	<i>meh</i>	<i>efesa</i>	<i>munggwom/mot</i>	<i>nton</i>
*claw	<i>mohob mog</i>	<i>aki (foot)</i>	<i>ndungwag</i>	
close (door)	<i>oufo</i>	<i>of</i>	<i>nggam</i>	<i>fawop(K), famut(A)</i>
*clothing	<i>sansun</i>	<i>maini</i>	<i>sinsun</i>	<i>sansun</i>
loincloth	<i>un</i>	<i>maini</i>	<i>mai</i>	<i>mar</i>
*cloud	<i>umer</i>	<i>mocgoc</i>	<i>(bum)buhui</i>	<i>bum</i>
*cold (adj.)	<i>emtereta</i>	<i>meifina</i>	<i>hou</i>	<i>disi(K), tuwat(A)</i>
*come	<i>en</i>	<i>en</i>	<i>kwei</i>	<i>na</i>
*cook	<i>ougtwan</i>	<i>oina</i> ¹⁵	<i>kwen</i>	<i>kwan</i>
*count	<i>ecic</i>	<i>ofosut</i>	<i>kwop</i>	<i>tinin</i>
*cry	<i>eb</i>	<i>ebisa</i>	<i>pim</i>	<i>ar</i>
*cut ¹⁶	<i>ogod</i>	<i>eris</i>	<i>tot</i>	<i>diti (small things)</i>

¹² Also *ogofi, ogofu*.

¹³ Not really applicable: Sougb terms are for male Ego. Female Ego: 'older brother' *igbegena*; 'younger brother' *jemeito*. Meyah 'older sibling same sex' = *mokora*; 'younger sibling same sex' = *mokosa*; 'older opposite sex' = *meyera*; 'younger opposite sex' = *meyesa*. Hatam terms are 'older and younger sibling same sex'. Female Ego refers to older or younger brother with *kijam*. Mpur *binon* refers to older or younger siblings of opposite sex; *nkowa* 'older sibling same sex', *nkunon* 'younger sibling same sex'.

¹⁴ *Mah et* 'fire eats', a similar phrase occurs in Hatam *hum yem ig* 'fire eat house'. Meyah 'to light a fire in' is *es mah gj*; Hatam has *ndig miai* 'burn a garden'.

¹⁵ Meyah has several terms: on a fire, next to a fire, over a fire, inside a fire, boil, etc. *oina* 'prepare food'.

cut meat etc.	<i>etkwa</i>		<i>digo</i>	<i>ton</i>
*dance	<i>einyuhwera</i>	<i>ouka</i>	<i>biem/cot</i>	<i>sat</i>
*dark (night)	<i>beigbogo</i>	<i>motu</i>	<i>mmun</i>	<i>borim(K), dim(A)</i>
*day	<i>lona</i>	<i>mona</i>	<i>njap</i>	<i>put</i>
deaf	<i>moms etugb</i>	<i>otub osuw</i>	<i>nnam</i>	<i>tut</i>
descend	<i>owada</i>	<i>ojuj</i>	<i>juk</i>	<i>buru</i>
*die	<i>omom</i>	<i>agos</i>	<i>mai</i>	<i>ut</i>
*dig	<i>ogo</i>	<i>eji</i>	<i>tig/kkin</i>	<i>sa</i>
*dirty (cf. black)	<i>ogor/gorgor</i>	<i>ahtaboku</i>	<i>digot/rom</i>	<i>met</i>
*dog	<i>mih(i)</i>	<i>mes</i>	<i>sien</i>	<i>per</i>
*down/below	<i>tainya/gaihi</i>	<i>degin</i>	<i>mw/jug/behei</i>	<i>tek</i>
*drink	<i>ek</i>	<i>ej</i>	<i>dut</i>	<i>kobet</i>
*dry (adj.) ¹⁷	<i>erouhw</i>	<i>ofora</i>	<i>ngga</i>	<i>fak</i>
*dull/blunt	<i>mecero/okta</i>	<i>ombiya</i>	<i>ngwam</i>	<i>mentin</i>
*dust (noun)	?	<i>mebi ofou</i>	<i>mpup</i>	<i>bakup</i>
*ear	<i>-ums</i>	<i>osu</i>	<i>tingou</i>	<i>kwaip</i>
*earth	<i>cinogo</i>	<i>mebi</i>	<i>dihyeisi</i>	<i>nek</i>
*eat	<i>et</i>	<i>et</i>	<i>yem</i>	<i>det</i>
*egg	<i>mougb</i>	<i>ofou</i>	<i>dinggwei</i>	<i>bwa</i>
*eight (five-three)	<i>senggemoi</i>	<i>cinja ogomu</i>	<i>muhuindaningai</i>	<i>mambrenur</i>
enough	<i>edeinyom</i>	<i>adaj</i>	<i>dem</i>	<i>menit</i>
*eye	<i>-airesi</i>	<i>eiteij</i>	<i>yai</i>	<i>am</i>
faeces	<i>m-oro</i>	<i>ebeyi</i>	<i>agoi</i>	<i>kan</i>
*fall	<i>obsara</i>	<i>esiri</i>	<i>cut</i>	<i>kwem</i>
*far	<i>gusi</i>	<i>yes</i>	<i>ting</i>	<i>janer/bwaner</i>
*fat/grease	<i>merij</i>	<i>efes</i>	<i>mmau</i>	<i>minyak</i>
*father (3SG)	<i>me-(i)na</i>	<i>me-eka</i>	<i>ni-cig</i>	<i>aya</i>
*fear (afraid)	<i>ahau</i>	<i>emesa</i>	<i>ttin</i>	<i>wanaw</i>
*feather (hair)	<i>m-odi</i>	<i>ef-eji</i>	<i>ntab</i>	<i>bur</i>
fell (a tree)	<i>ehi</i>	<i>of</i>	<i>wim</i>	<i>fer</i>
fence (garden)	<i>liga</i>	<i>mejga</i>	<i>ngugwa</i>	<i>tak</i>
*few	<i>gurereito</i>	<i>egekgeka</i>	<i>poi</i>	<i>ker(en)on/unon</i>
*fight (v.) ¹⁸	<i>es-im</i>	<i>agob-ma</i>	<i>bui-yam</i>	<i>jik-em</i>
*fire	<i>smougb</i>	<i>mah</i>	<i>hum</i>	<i>yet</i>
*fish	<i>hosei</i>	<i>mos</i>	<i>wau</i>	<i>mwan</i>
*float	<i>eikbib</i>	<i>ah gu mei odog</i>	<i>biam</i>	<i>piar</i>
*flow	<i>eh</i>	<i>eya</i>	<i>nggram</i>	<i>dorow</i>
*flower	<i>meric</i>	<i>marfok</i>	<i>tou</i>	<i>uk</i>

16 A generic term is hard to give. The items here are responses to generic Indonesian *potong*.

17 The listed terms are for 'dry' of clothes; 'dry' of wood is Hatam *mui*, Mpur *yep*.

18 In all the languages 'fight' is polymorphic 'hit/hurl each other'. For example, Sougb *es-im* 'fight with bow'; *ec-im* 'fight with gun'; *ogot-im* 'fight with fists'. Mpur *jik-em* 'kill-each other' is used for 'fighting'.

*fly (v.)	<i>ohw</i>	<i>ofu</i>	<i>(di)mba</i>	<i>dek/bubwar</i>
*fog	<i>lohos moro</i>	<i>mockoj</i>	<i>munbuhui</i>	<i>bum</i>
*foot (cf. leg)	<i>-ohora</i>	<i>aki</i>	<i>mig</i>	<i>prek</i>
forget	<i>oc m-oc</i>	<i>odou ofoj joug</i>	<i>bbwe ser</i>	<i>fnander</i>
*freeze	not relevant			
from	<i>dau</i>	<i>jeska</i>	<i>leu</i>	<i>bari</i>
*full	<i>atij</i>	<i>etiti</i>	<i>ut</i>	<i>bit(K), berem(A)</i>
*give (= take)	<i>eic</i>	<i>eita</i>	<i>yai</i>	<i>bot</i>
go ¹⁹	<i>eda</i>	<i>eja</i>	<i>ug</i>	<i>un</i>
run away/flee	<i>ougb</i>	<i>ojuj</i> (low pitch)	<i>nang</i>	<i>defriw</i>
*good	<i>eigouhw</i>	<i>oufa</i>	<i>kei</i>	<i>mafun</i>
grab (cf. hold)	<i>eigdoc</i>	<i>oskotu</i>	<i>kat</i>	<i>dak/inka</i>
*grass ²⁰	<i>arec</i>	<i>mofombra</i> (weeds)	<i>mintab</i>	<i>bafo</i>
		<i>meskeing</i>		
		(grass-like weeds)		
*green	<i>augweda</i>	<i>ofraha</i>	<i>nimahai</i>	<i>bwawop</i>
*guts ²¹	<i>menuhwa</i>	<i>otkonu</i>	<i>inghop</i>	<i>funon</i>
*hair (head)	<i>modi</i>	<i>efeji</i>	<i>ntab</i>	<i>(bwam-)bur</i>
*hand (cf. arm)	<i>me-s(i)ra</i>	<i>etma</i>	<i>ndab</i>	<i>wom</i>
*he	<i>en</i>	<i>ofa</i>	<i>no(ni)</i>	<i>yeta</i>
*head (3SG)	<i>m-ougt</i>	<i>ebirfaga</i>	<i>bou(g)</i>	<i>bwam</i>
*hear	<i>ouman</i>	<i>eg</i>	<i>miap</i>	<i>minsem</i>
*heart (3SG)	<i>me-doc</i>	<i>efemebi</i>	<i>ni-ngon</i>	<i>dumwam</i>
*heavy	<i>ogom</i>	<i>okum</i>	<i>buhun</i>	<i>kot</i>
*here	<i>suggini</i>	<i>sif</i>	<i>eisini</i>	<i>(n)ki/ku manki</i>
*hit (<i>pukul</i>)	<i>ogod</i>	<i>agob</i>	<i>bui</i>	<i>bat/dop</i>
*hold (cf. grab)	<i>os</i>	<i>agei</i>	<i>krau kep</i>	<i>deka</i>
hole	<i>mes</i>	<i>efesi</i>	<i>nsi</i>	<i>bwam</i>
*horn	<i>momboungmog</i>	<i>obukum</i>	<i>bou nggai/pun</i>	<i>kat</i>
*house	<i>tu</i>	<i>mod</i>	<i>ig</i>	<i>jan</i>
*how	<i>dag(i)ro</i>	<i>teinefa</i>	<i>no tou</i>	<i>arote</i>
*hundred ²²	<i>huntun</i>	<i>wutin</i>	<i>untin</i>	<i>untin</i>
hungry	<i>s(i)r-eb-a</i>	<i>mosona-id</i>	<i>-nggum</i>	<i>kwen</i>
*hunt/chase	<i>ocir</i>	<i>okuk</i>	<i>huk</i>	<i>minsa/bisa</i>

19 There are other lexemes or phrases that can be translated as 'go', such as Sougb *ec mohora* 'walk leg' and the items listed for 'walk'.

20 A difficult generic term for Papuan languages. Some attempts are listed. For example, I had for Sougb *aremec* which includes 'ferns, grass, reeds'. Lunow provided *arec*; Hatam *mintab* = 'something-hair'. A conflation 'hair' and 'grass' is quite common in Papuan languages.

21 No clear generic term for 'guts'; Sougb *menuhwa* was given for Indonesian *perut* 'belly'; *urmeic* 'large intestine'; Meyah *otkonu efesa* 'small intestines'; *otkonu mosu* 'large intestine'; Hatam *inghop mem* 'large intestines'; *inghop ngwoi* 'small intestines'.

22 This is clearly an Austronesian loan. Biak and Taba have *utin*, which in Taba also has a verbal meaning 'to gather' (John Bowden, pers. comm.).

*husband (3SG)	<i>mesuwa</i>	<i>mehina</i>	<i>niceb</i>	<i>nap</i>
*I	<i>dan</i>	<i>didif</i>	<i>dani</i>	<i>in</i>
*ice	not relevant			
*if	<i>sug</i>		<i>gi(no)</i>	<i>bwa</i>
ill/sick	<i>ar-eb-a</i>	<i>mar-en-</i>	<i>nggwen</i>	<i>wantek</i>
*in	<i>se</i>	<i>gij (into)</i>	<i>ei</i>	<i>ku/ma</i>
inside	<i>mes</i>	<i>efesi</i>	<i>nsi</i>	<i>beu</i>
*kill (cf. hit)	<i>ogod/es</i>	<i>agob</i>	<i>bui</i>	<i>jik</i>
*knee	<i>mohor-beda</i> ²³	<i>okeibi</i>	<i>mig-biau</i>	<i>pejaw</i>
*know	<i>ecinaga</i>	<i>ejginaga</i>	<i>kan</i>	<i>unot</i>
*lake	<i>mohu/ansi</i>	<i>meren</i>	<i>igpong</i>	<i>wop</i>
*laugh	<i>obohuba</i>	<i>otut</i>	<i>pa</i>	<i>kotot/ditot</i>
*leaf	<i>meh(i)</i>	<i>efeyi</i>	<i>mmeng</i>	<i>bwa</i>
*left (side)	<i>medgi</i> ²⁴	<i>egris</i>	<i>prak</i>	<i>kate</i>
*leg (cf. foot)	<i>ohora</i>	<i>aki</i>	<i>mig</i>	<i>pet/butur</i>
*lie on side	<i>atou meba</i>			
lie down (sleep)	<i>atouda</i>	<i>ah jah</i>	<i>bong</i>	<i>kon</i>
*lip	<i>-ups/m-ops</i>	<i>ofuj</i>	<i>hui ngkeg</i>	<i>met</i>
*live/be alive	<i>mena agau</i>	<i>efena ebah</i>	<i>niyaijo</i>	<i>fun</i>
life ²⁵	<i>maireseb</i>		<i>niyaijoti</i>	<i>fun</i>
*liver	<i>medoc mei</i> ²⁶	<i>odou</i>	<i>singau</i>	<i>nabwaur</i>
*long (space)	<i>agas</i>	<i>aksa</i>	<i>jei</i>	<i>serer</i>
*louse	<i>(mougt)mem</i>	<i>mej</i>	<i>(bou) mem</i>	<i>im</i>
*man	<i>giji</i>	<i>orna~ona</i>	<i>pinai</i>	<i>munip</i>
*many	<i>einyana</i>	<i>ofoukou</i>	<i>mang</i>	<i>fon/aur</i>
*meat (flesh)	<i>-ug/mog</i>	<i>ofogu</i>	<i>nghuig/mikwaw</i>	<i>(ka)mop</i>
*milk (cf. breast)	<i>marij</i>	<i>m-engk</i>	<i>do ngei</i>	<i>sut</i>
*moon	<i>igda (loba)</i> ²⁷	<i>mesta</i>	<i>bed</i>	<i>man</i>
*mother (3SG)	<i>me-(i)m</i>	<i>me-osu</i>	<i>nip-mem</i>	<i>yen</i>
*mountain	<i>men(mod)</i>	<i>mem(aga)</i>	<i>nungugw</i>	<i>sor</i>
*mouth	<i>m-ers</i>	<i>awesi</i>	<i>huig</i>	<i>bwat</i>
*name (3SG)	<i>m-oho</i>	<i>of-oka</i>	<i>ni-nyeng</i>	<i>muk</i>
*narrow	<i>einyim</i>	<i>emeima</i>	<i>nggilup/kom</i>	<i>yer</i>
*navel	<i>mogoc mougt</i>	<i>enggen</i>	<i>kimba</i>	<i>dur</i>
*near	<i>deinyor</i>	<i>deiberi/doida</i>	<i>dideu</i>	<i>dumat/fanam</i>
*neck (nape)	<i>mergo mei</i>	<i>orukaga</i>	<i>nggibia</i>	<i>ansun</i>
*new	<i>menau</i>	<i>efeinah</i>	<i>jep/bun</i>	<i>bak</i>
*night	<i>loba</i>	<i>motu</i>	<i>mmun</i>	<i>dim</i>

²³ Correction by Lunow is *mohobrida*.

²⁴ Correction is *metigi*.

²⁵ At least in Sougb and Hatam the concept is expressed by 'X's-eye do/be'.

²⁶ Correction is *medoc meh*.

²⁷ See also 'sun': Sougb has one term, disambiguated by addition of *loba* 'night' and *lona* 'day'.

*nine (five + four)	<i>senggegu</i>	<i>cinja tahkuru</i>	<i>muhuindabitai</i>	<i>mambibwat</i>
*nose	<i>m-ebes</i>	<i>osum</i>	<i>hwap</i>	<i>minsans(K)</i> <i>wanken(A)</i>
*not	<i>ero</i>	<i>guru</i>	<i>big</i>	<i>jan</i>
*old (not people)	<i>mohon</i>	<i>ensis</i>	<i>timiei</i>	<i>sinu/sunu</i>
*one (numeral)	<i>hom</i>	<i>egens</i>	<i>gom</i>	<i>tu</i>
open	<i>ec</i>	<i>ohoda</i>	<i>kau</i>	<i>bas/soro</i>
*other	<i>gus</i>	<i>enjgineg</i>	<i>hi</i>	<i>(fi)ti</i>
peel	<i>agareh</i>	<i>oj</i>	<i>nggrei</i>	<i>yew</i>
*person	<i>sud</i>	<i>osnok</i>	<i>tungwa(tu)</i>	<i>man/mamir</i>
*play (games)	<i>ei mumc</i>	<i>ahaisomu</i>	<i>kek</i>	<i>dinbar</i>
*pull	<i>ei/esera</i>	<i>oku</i>	<i>brim</i>	<i>dubun</i>
pull up (weeds)	<i>ohoma</i>		<i>hom</i>	<i>(fa-)dubun</i>
*push/press	<i>oun/akebin</i>	<i>edei/esin</i>	<i>rok/om</i>	<i>tub(w)i/sekap</i>
put down	<i>ob(dep)</i>	<i>aha jah</i>	<i>yok</i>	<i>ter</i>
*rain	<i>los</i>	<i>moos</i>	<i>biged</i>	<i>pa</i>
rat	<i>ijouhw</i>	<i>mocuw</i>	<i>ncub</i>	<i>kumer(K)</i> <i>kaburwaw(A)</i>
*red	<i>ahani</i>	<i>ekeni</i>	<i>ngwoi</i>	<i>sum</i>
*right/correct	<i>misen/asesa</i>	<i>tenten</i>	<i>igbit/jit</i>	<i>keu/kaw</i>
*right side	<i>misen</i>	<i>ognoks</i>	<i>com</i>	<i>kaip</i>
*ripe	<i>ohoseri</i>	<i>ofom/efej</i>	<i>len/mwes</i>	<i>b(w)in</i>
*river (cf. water)	<i>duhu mem</i>	<i>mei</i>	<i>minyei</i>	<i>war</i>
*road	<i>ucina</i>	<i>semfag</i>	<i>puig</i>	<i>njan</i>
trail/track		<i>moroju</i>	<i>niran</i>	<i>bwak</i>
*root	<i>sogo mom</i>	<i>ofom</i>	<i>nigaw</i>	<i>sumut</i>
*rope	<i>aikdaga</i>	<i>mar efeb</i>	<i>bab</i>	<i>ibor</i>
		<i>meyaga = jungle vine</i>		
*rotten	<i>ei yema</i>	<i>esemba</i>	<i>kroi/nggun</i>	<i>mup/piam</i>
*round/circular	<i>medrigo mogo</i>	<i>ofog</i>	<i>kimor</i>	<i>kokik (?)</i>
*rub	<i>ousousa</i>	<i>oroh</i>	<i>ok/prios</i>	<i>bakat</i>
*salt	<i>aremor</i>	<i>mar (o)foru mos</i>	<i>nsim</i>	<i>pat</i>
*sand	<i>dibo/geria</i>	<i>mebsta</i>	<i>igum</i>	<i>ninja</i>
*say	<i>en</i>	<i>agot</i>	<i>pai/mbrap</i>	<i>bwar</i>
*scratch	<i>ehigeis</i>	<i>aha</i>	<i>kam</i>	<i>sasek (ground)</i>
*sea	<i>dum mohu</i>	<i>mei mojumu efei</i>	<i>mug/suan</i>	<i>wot</i>
*see	<i>eiya</i>	<i>eyajga</i>	<i>ngat</i>	<i>wot</i>
		<i>ek = look</i>		
*seed	<i>meij</i>	<i>marsi</i>	<i>ngat</i>	<i>ja</i>
*seven (five + two)	<i>senggai</i>	<i>cinja egeka</i>	<i>muhundacan</i>	<i>mambrokir</i>
*sew	<i>ogon</i>	<i>eb</i>	<i>hu/nap</i>	<i>fet/tin/wom</i>
*sharp (point)	<i>mog</i>	<i>ofog</i>	<i>nggwen/dile</i>	<i>kwar/ner</i>
sharpen	<i>ecugwo</i>	<i>oha</i>	<i>heu</i>	<i>ik</i>

*shoot (arrow)	<i>es(i)</i>	<i>ef</i>	<i>pilei</i>	<i>tum</i>
shoot (gun)	<i>ec</i>	<i>okub</i>	<i>non</i>	<i>tum</i>
*short	<i>agarougb</i>	<i>estir</i>	<i>cun</i>	<i>dut</i>
shrimp	<i>amomo</i>	<i>momesa</i>	<i>mow</i>	<i>mow</i>
*sing	<i>ohu mer</i>	<i>of medemer</i>	<i>pai doiya</i>	<i>dindoya</i>
*sister (ego male) ²⁸		<i>me-damowa</i>	<i>kwohop</i>	<i>binon</i>
younger sister	<i>me-damehito</i>		<i>kwohop</i>	<i>binon</i>
*sit	<i>eigtou</i>	<i>eker</i>	<i>gwam</i>	<i>jap</i>
*six (five + one)	<i>senggem</i>	<i>cinja efens</i>	<i>muhindagom</i>	<i>mambitu</i>
*skin	<i>-us/m-os</i>	<i>ofos</i>	<i>ngkeg</i>	<i>fek</i>
*sky	<i>bogo</i>	<i>mebaga</i>	<i>gwamti</i>	<i>pe/okram</i>
*sleep	<i>atou</i>	<i>ah jah</i>	<i>bong</i>	<i>kon</i>
*small	<i>mogurei</i>	<i>of-okai</i>	<i>mien</i>	<i>nombak</i>
*smell (verb)	<i>ouma</i>	<i>eg</i>	<i>miap</i>	<i>umpam</i>
smell (intentional)	<i>ohu mebes</i>		<i>tinip</i>	<i>mesem</i>
*smoke (noun)	<i>moro</i>	<i>ef-eb</i>	<i>mub</i>	<i>kum</i>
*smooth (surface)	<i>eskraha</i>	<i>efeta.</i>	<i>mblus</i>	<i>senanfok(K)</i>
slippery smooth	<i>edeskwesi</i>	<i>orswos</i>	<i>dia</i>	<i>serama(A)</i>
*snake	<i>hinogo</i>	<i>magosu</i>	<i>wou(g)</i>	<i>kur</i>
*snow	not relevant			
*some	<i>aibibra²⁹</i>	<i>eneya</i>	<i>bihi</i>	<i>fiti</i>
something (cf. what)	<i>ara</i>	<i>mar</i>	<i>mun</i>	<i>bar</i>
*speak (cf. say)	<i>en-ara</i>	<i>agot</i>	<i>mbrap/pai</i>	<i>bwar</i>
*spear (n.)	<i>keptemaga</i>	<i>meitefa</i>	<i>micim</i>	<i>bor</i>
*spit (v.)	<i>ococ/eigdores</i>		<i>tra</i>	<i>tu(b)wat</i>
*split (wood)	<i>aga</i>	<i>etka</i>	<i>pes/sra</i>	<i>ba</i>
*squeeze	<i>esugb</i>	<i>ebid</i>	<i>kimu/om/pot</i>	<i>dam</i>
*stab	<i>edesugb</i>	<i>oduis</i>	<i>dat/riu</i>	<i>kwat/wom</i>
*stand	<i>esa</i>	<i>ot</i>	<i>ya</i>	<i>i(bor)</i>
*star	<i>tebeic</i>	<i>motur</i>	<i>ham</i>	<i>ton</i>
*stick (wood)	<i>ijouhuga³⁰</i>	<i>moskur</i>	<i>tom/liep/pien</i>	<i>sik</i>
still/yet	<i>aba</i>	<i>ros</i>	<i>yo</i>	<i>to</i>
*stone	<i>igdahabi</i>	<i>mamu</i>	<i>tig/hag</i>	<i>bit</i>
*straight	<i>obosboro</i>	<i>orendesi</i>	<i>sren</i>	<i>tur</i>
*suck	<i>outut</i>	<i>efa</i>	<i>muhun</i>	<i>yemsrup(K)</i>
*sun	<i>igda lona</i>	<i>mowa</i>	<i>prow/mpiab</i>	<i>put</i>

28 See footnote 13 'brother': Sougb terms for 'sister' are used by Ego of either sex: 'older sister' = *damowa*; 'younger sister' = *damehito*. Meyah 'older sibling same sex' = *mokora*; 'younger sibling same sex' = *mokosa*; 'older opposite sex' = *meyera*; 'younger opposite sex' = *meyesa*. Hatam terms are *kindig* 'older sibling same sex'; *kinjoi* 'younger sibling same sex'. Male ego's sister is *kwohop* regardless of relative age. Mpur *binon* refers to sibling of opposite sex, regardless of age.

29 Or for animates: *mer-ugwa hosa* 'their-flesh how.many'.

30 *Ijouhuga* is 'walking stick'; *sogo mesira* 'tree arm' or *sogo moc* 'tree piece' are pieces of wood.

*swell	<i>erisa</i>	<i>efifij</i>	<i>dwoi?</i>	<i>perem</i>
*swim	<i>ougb duhu</i>	<i>era mei</i>	<i>ha minyei</i>	<i>jat</i>
*tail	<i>me-sera</i>	<i>oiraga</i>	<i>pu</i>	<i>am (fish)/muk</i>
*ten	<i>sis</i>	<i>setka</i>	<i>simnai</i>	<i>onkir</i>
*that ³¹	<i>ingga</i>	<i>koma</i>	<i>dima</i>	<i>ka</i>
*there	<i>sungga</i>	<i>suma</i>	<i>eisima</i>	<i>nka</i>
*they	<i>len</i>	<i>rua</i>	<i>yoni</i>	<i>der</i>
*thick	<i>oungmerema</i>	<i>ontumba</i>	<i>ndok</i>	<i>bwantit</i>
thigh	<i>mohot</i>	<i>okunu</i>	<i>ndumuhum</i>	<i>umip</i>
*thin (person)	<i>ekinei</i>	<i>reires</i>	<i>krin/ta cut</i>	<i>serek(ip)</i>
*think	<i>oudesa</i>	<i>osujohu</i>	<i>kankan</i>	<i>from</i>
*this	<i>gini</i>	<i>kef</i>	<i>dini</i>	<i>ki</i>
thirsty	<i>meric-ebe-</i>	<i>magon-en-</i>	<i>-nggobiau</i>	<i>jan</i>
*thou	<i>ban(i)</i>	<i>bua</i>	<i>nani</i>	<i>nan</i>
*three	<i>homoi</i>	<i>ogomu</i>	<i>ningai</i>	<i>denur</i>
*throw (at)	<i>ed(i)</i>	<i>eij</i>	<i>hwen</i>	<i>fa</i>
throw (away)	<i>erba</i>	<i>eij</i>	<i>com</i>	<i>frak</i>
*tie (v.)	<i>ohut</i>	<i>akid</i>	<i>ngot/kwot</i>	<i>ber/bekai</i>
*tongue	<i>me-temougb</i>	<i>arni</i>	<i>dweb</i>	<i>bitraw</i>
*tree	<i>sogo</i>	<i>mega</i>	<i>biei</i>	<i>ni</i>
*turn (change direction)	<i>eineg</i>	<i>oksef/esmef</i>	<i>kiek</i>	<i>fabrek</i>
*twenty ³²	<i>sud hom</i>	<i>isnok egens</i>	<i>nyatungwa gom</i>	<i>onkir kir</i>
*two	<i>hwai</i>	<i>egeka</i>	<i>can</i>	<i>dokir</i>
*up/above	<i>taiba/gada</i>	<i>skida</i>	<i>dib/gau</i>	<i>ju/jun</i>
*vomit	<i>ersa</i>	<i>aha meisohu</i>	<i>njim/nggrim</i>	<i>minyak</i>
*walk	<i>esebesa</i>	<i>ecira aki</i>	<i>mbut</i>	<i>un</i>
*warm	<i>esrougb</i>	<i>ofoufem</i>	<i>dut</i>	<i>tek</i>
*wash (s.t)	<i>eduh</i>	<i>ot</i>	<i>piap/tot</i>	<i>bup</i>
*water	<i>duhu/mohu</i>	<i>mei</i>	<i>nyei</i>	<i>war</i>
*we (EXC)	<i>emen</i>	<i>memef</i>	<i>nyeni</i>	<i>yek</i>
*wet	<i>mohumohu</i>	<i>eyejyej</i>	<i>ndot</i>	<i>sok</i>
*what	<i>ara</i>	<i>meidu</i>	<i>mindei</i>	<i>ban</i>
*when	<i>ais(eb)a</i>	<i>mona juaho</i>	<i>pig</i>	<i>tote/unte</i>
*where	<i>dig(i)ro</i>	<i>gu-aidu</i>	<i>han-tou</i>	<i>(ku) mande</i>
*white	<i>ogoufu</i>	<i>ebsi</i>	<i>tiei</i>	<i>fubwe</i>
*who	<i>g-ara</i>	<i>idu</i>	<i>tou</i>	<i>man</i>
*wide	<i>ebehibera</i>	<i>efefi</i>	<i>nyan</i>	<i>bwarak</i>

³¹ Actually, glosses for 'that' and 'there' in these languages depend on other factors, such as elevation, direction, visibility. To compare these would require a separate paper, but see the relevant sections in the descriptive chapters.

³² Alternative expressions are: Sougb *mos hwai* 'skin two'; Meyah *setka egeka* 'ten two', which is similar to Mpur *onkir kir* 'ten two'.

*wife	<i>me-sowa</i>	<i>me-ohona</i>	<i>nem</i>	<i>nyan</i>
*wind (n.)	<i>lougmen</i>	<i>mof</i>	<i>hou</i>	<i>ip</i>
*wing	<i>m-ebera</i>	<i>ef-embira</i>	<i>nihyei</i>	<i>dek</i>
*wipe	<i>ogun</i>	<i>osuna</i>	<i>cok</i>	<i>kusup</i>
*with (accom)	<i>dara</i>	<i>jera</i>	<i>kin</i>	<i>braw</i>
*woman	<i>gihida</i>	<i>ojaga</i>	<i>sop</i>	<i>musim</i>
*woods	<i>sogo meba</i>	<i>merenrah</i>	<i>bigbehei</i>	<i>niraw</i>
*work (v.)	<i>eb-ara</i>	<i>ef mar</i>	<i>yai midiyai</i>	<i>dak bar</i>
*worm	<i>haga</i>	<i>mofunfou</i>	<i>adihyeisi/miheb</i>	<i>nemat</i>
*you (PL)	<i>yen(i)</i>	<i>iwa</i>	<i>jeni</i>	<i>nen</i>
*year	(all loans from Malay: <i>taun</i>)			
*yellow	<i>gohoser</i>	<i>orug</i>	<i>nipug</i>	<i>umfrum(K)</i>

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