A Study of the Dialects of Amele

John R. Roberts
Summer Institute of Linguistics

0. Introduction

The main purpose of this article is to document the results of my research into the dialects of the Amele language[1] of Papua New Guinea (PNG). Data for this research were gathered during various periods in 1977, 1978 and 1988.[2] Sections 1-4 deal with the means by which the data were gathered and the interpretation of those data. Sections 5-6 describe the various phonological, lexical and grammatical differences found in the data. Section 7 defines the dialect boundaries on the basis of the phonological, lexical and grammatical isoglosses. Lastly, in section 8 a thesis is proposed to explain the dialect differences themselves. An interesting aspect of this article is how it shows that a much more accurate interpretation of raw word-list data is possible for the purposes of dialect determination after the researcher has gained a fuller knowledge of the language under investigation.

1. The Data Gathering

Several sociolinguistic surveys have been made of the Amele language group by myself and also by other members of the Summer Institute of Linguistics (SIL) as part of their involvement with the SIL Pacific Orientation Course (POC). The data that forms the basis of this research article were taken by myself in 1978 and also by SIL-POC teams in 1977, 1978 and then later by more SIL-POC teams in 1988. Five word lists of 190 items each were taken by an SIL-POC team in June 1977, mainly in the village of

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[1] Amele is the largest of the Gum language family, Mabuso stock (see Z'graggen 1975). There are approximately 6000 Amele speakers. A full grammatical description of Amele is given in Roberts (1987).

[2] During these periods I was working under the auspices of the Summer Institute of Linguistics.

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The results of these cognate counts are given in Table (1). They seemed to be rather on the low side, especially for villages that were all supposed to belong to the same language group. For example, Ohu had the lowest cognacy rate with a count of 81% with the village of Bahor, which would make these two villages almost different languages! Ohu also had as a high count only 87%, and that was with a neighbouring village. The highest count overall was 98% between Omuru and Sah, two adjacent villages. One would have expected to have found at least some 100% scores but there were none. Furthermore the cognate count figures did not relate villages together in any sort of ordered pattern. Table (2) displays each village with its nearest cognate villages. There were many anomalous groupings. So Amele, for example, a village near the geographical centre of the language group, had as its closest cognate Jelso, a village near the northern end of the group, and Dalam, a village at the extreme southern edge of the group. I could not discern any clear pattern that might reveal likely dialect groupings from these figures. However, from the word lists I was able to note some phonological differences such as an [l] <—> [r] and a [d] <—> [r] correspondence in some forms. On the basis of the distribution of these forms I speculated that there were three dialect groupings, one in the north covering the villages along the Mawan road, one in the east covering the villages along the Jagaum and Bilbil roads and the remaining villages in the west that may or may not form one group. As some confirmation of this hypothesis I later discovered that the Amele people had terms for these three groupings, viz. the Haija in the north, the Huar in the east and the Jagahala in the west. For various reasons we decided to allocate in Danben village in the Haija dialect.

During further studies of the Amele language I became aware that there were probably grammatical as well as phonological differences between the dialects and in 1988 I again organized a survey of some Amele villages by SIL-POC teams. This time they gathered data on an extensive word list of 343 items as well as information on the complete set of Amele verb paradigms.

4. Reassessment of the Data

The aim in this section is to present my findings regarding the dialect situation in the Amele language based on the 1988 data and a reassessment of the 1978 data.

When I came back to the word lists gathered in 1978 it immediately became clear to me why I had had such difficulty before in calculating credible cognate counts. Now that I knew the language much better I could see that for a number of items on the word list there were several different responses that an informant could give, all of which would be equally valid. For example, in response to 'neck' an informant could give either *be* 'the front of the neck' or *du* 'the back of the neck' or *dodol* 'the throat'. The item 'tail' has two valid responses in *hohug* or *bitiʔ* as does the item 'fish' in *ʔul* or *do:l* and the item 'black' in *ʔas* and *udu*. *ʔas* would be applicable to describe an inanimate nominal, whereas *udu* would only be used with an animate nominal. For some items informants had responded with either a generic term or a specific term, e.g., for 'wind' the response is either *fufu* 'wind' or *babau* 'the wind from the mountains'. Previously I had counted such different responses as noncognates and consequently arrived at a set of erroneous cognate counts. In my reassessment of the data I counted genuine synonyms, generic-specific and animate-inanimate items as cognate.

In Table (3) I have given a summary of the word list data obtained in 1978. The raw data is based on 100 items and is recorded on some 50 word lists so for the sake of brevity I have presented the data in the form of a comparison. Under each item in the word list the form recorded in a majority of the villages of Danben, Ajon, Sinan, Jelso and Hilu, i.e., the villages recognized locally as belonging to the Haija clan, is selected as the standard for comparison. These forms, with both a phonetic and phonemic transcription, are listed under 'Haija Standard'. Variations against this standard form are then listed under 'Significant Variations'. The villages where both the 'Haija 'Standard' and the 'Significant Variations' occur is listed under 'Villages of Occurrence'. It should be noted that setting the data off in a comparison arrangement such as this does not bias or misrepresent the data in any way. All the responses recorded on the word lists are itemized together with their places of occurrence. Sometimes the 'Haija Standard' occurs in more than the Haija villages listed above, as under '2. head' and '3. mouth' for example, and sometimes a 'Significant Variation' occurs in one of these Haija villages, as under '22. ashes' where *ʔæbæ/æʔ* occurs in Jelso. The comparison is merely a convenient way of listing the data.

Using the revised method outlined above of assessing cognates I arrived at a different set of cognate counts than before. There were now noncognate forms, i.e., forms which could not be derived by rules of diachronic morpho-phonological change from the

same source as the other cognate forms, for fourteen of the items. These noncognate forms are marked by * in Table (3) and occur under items 22, 29, 37, 38, 39, 40, 43, 52, 54, 62, 68, 69, 72, and 78. There were thirteen villages that had these noncognate forms; Aijab, Bahor, Banub, Dalam, Hobai, Hudini, Jelso, Moilsehu, Ohu, Ohuru, So, Umuin and Umun. The revised set of cognate counts are presented in Table (4). There were now many instances of 100% cognacy between villages as one might expect if they all belonged to the same language. Ohu was still the least cognate village with the lowest rate of 91% against most other villages but this figure still defines Ohu as well within the Amele language group rather than being borderline as the previous cognate counts indicated. Table (4) also gives the average cognacy of each village with all other villages. For all villages without noncognate forms this works out at 98.86%. The thirteen villages with noncognate forms have a progressively less cognate average down to Ohu which averages 91.48%. Map (4) displays the geographical location of the noncognate villages and these are italicized. Geographically these villages form two groupings; Jelso, Hudini, So, Aijab, Banub, Bahor, Ohuru and Umuin in the east and Hobai, Moilsehu, Ohu, Dalam and Umun in the west. These groupings form the basis of two of the Amele dialects as will be demonstrated in the forthcoming sections. In fact, the cognate counts begin to show the pattern that will become clear later that Amele has two dialect groups in the east and the west that are related to each other, but that are both somewhat distinct from the dialect group in the north.

In Table (5) the closest cognate villages for the thirteen villages with noncognate forms is given. A count is also given of the number of times each village occurs as a closest cognate of another village. Again some groupings can be discerned. Banub, Hudini and Umuin each occur six times as closest cognate of other villages and are 100% cognate with each other. Later I will show that they are part of a core grouping of noncognate villages in the east. Another 100% grouping that occurs is that of Jelso and Bahor and they each occur four times as closest cognate of other villages. However, phonological evidence presented later will show that these villages, in fact, belong to separate dialect groups. Another grouping that is perhaps less strong on the basis of cognate counts but will be shown to be more significant when phonological evidence is taken into account is that of Moilsehu and Dalam. They are 98% cognate with each other and occur twice as closest cognates of other villages.

5. Phonological Differences

The word lists summarized in Table (3) also provide data on various phonological differences between the Amele villages. Indeed it is the phonetic differences which are more significant in determining the dialect boundaries than the cognate counts. There are four significant variations displayed in the data, all involving consonants. These are:

(i) an [l] in the Haija dialect often has a corresponding [r] in nonHaija villages,
(ii) a [d] in the Haija dialect often has a corresponding [t] in nonHaija villages,
(iii) a [g] in the Haija dialect often has a corresponding [k] in nonHaija villages, and
(iv) an [f] in the Haija dialect often has a corresponding [p] in the nonHaija villages.

The Haija dialect has a phoneme /l/, which has no significant allophonic variation, the phonemes /d/ and /t/, which are contrastive, the phoneme /g/, which has a voiceless allophone, [k], in word final position and a voiced allophone, [g], in other word positions, and the phoneme /f/, which has no significant allophonic variation. See Roberts (1987) for a further description of the Haija phonology.

The correspondences described above are itemized in Tables (6-9). In each of these tables a list of all the villages is given together with the occurrence of a particular correspondence matched to the item in the word list and the village where it occurs. So Table (6) lists the items by number across the top which have an [r] that corresponds to an [l] in the Haija standard and the 'r' in the columns match the village where such an item occurs. Tables (7), (8) and (9) do the same for [t], [k] and [p] respectively.

The rows indicate the number of times a particular correspondence occurs in a particular village. So in Table (6) Aguru has ten different items with a correspondent [r]. Aijab has nine and so forth. These figures can then be transfered to maps to locate the counts of occurrence geographically. Maps (5-8) display each of the correspondences.

In Map (5) there are high counts for occurrence of [r] in Wagug, Hudini, So, Aijab, Banub, Bahor, Aguru, Omuru, Sein, Ohuru and Umuin. These villages then form a group based on the [r] correspondence. It is also the case that some of these villages are grouped together by noncognate forms. For example, the noncognate *ʔabalaʔ* 'ashes' groups together Bahor, Banub, Hudini, Ohuru, So and Umuin. The noncognate *sɛl* 'moon' groups together Aijab, Banub, Hudini, Ohuru, So and Umuin. It is also the case

that a metathetic form groups together some of these villages. The Haija standard for 'sand' is *ɛsil*, which is *ɛsik* in some of the +[r] villages and the metathetic *ɛgis* in Aguru, Bahor, Banub, Ohuru, So and Umuin. I will give evidence below that it is, in fact, the Haija form that is deviant or metathetic but the data here is sufficient to substantiate the +[r] grouping.

The same procedure is followed for the other correspondences. The incidences where a [t] occurs as correspondent to a [d] in the Haija standard are displayed in Table (7). This time the high counts are Moilsehu, with ten, Dalam with seven and Amele with six. The incidences where a [k] occurs as correspondent to a [g] in the Haija standard are displayed in Table (8). Here the high counts are Dalam, with seven, Omuru, with five, and Moilsehu and Amele, both with four. Lastly the incidences where a [p] occurs as correspondent to an [f] in the Haija standard are displayed in Table (9). Here the high counts are in the three adjacent villages Baitabu, Sah and Omuru, with a count of three each.

As already mentioned these counts are also displayed geographically by the maps (5-8). Map (5) indicates the villages where an [r] occurs in correspondence to an [l] in the Haija dialect and the number of such incidences from the word list (Table 3). If we take two or more incidences of [r] as diagnostic then this would group together the villages of Wagug, Hudini, So, Aijab, Banub, Bahor, Aguru, Omuru, Sein, Ohuru and Umuin. Villages with two or more incidences of +[r] are italicized in Map (5). Map (6) indicates the villages where a [t] occurs in correspondence to a [d] in the Haija dialect and the number of such incidences from the word list (Table 3). If we take three or more incidences of [t] as diagnostic then this would group together the villages of Hobai, Medo, Moilsehu, Ohu, Sua, Amele, Dalam, Umun and Sah. Villages with three or more incidences of +[t] are *italicized* in Map (6). Map (7) indicates the villages where a [k] occurs in correspondence to a [g] in the Haija dialect and the number of such incidences from the word list (Table 3). If we take two or more incidences of [k] as diagnostic then this would group together the villages of Moilsehu, Amele, Dalam, Umun, Baitabu and Omuru. Villages with two or more incidences of +[k] are italicized in Map (7). Map (8) indicates the villages (italicized) where a [p] occurs in correspondence to an [f] in the Haija dialect and the number of such incidences from the word list (Table 3).

The incidences of [t] and [k] overlap and occur in basically the same villages. For example, Moilsehu has ten incidences of [t] and four incidences of [k], Amele has six incidences of [t] and four incidences of [k], Dalam has seven incidences of both [t] and [k] and Umun has five incidences of [t] and three incidences of [k]. The villages which have a count of three or more incidences of either [t] or [k] can be grouped together. This grouping can be substantiated by some of the noncognate forms. For example, the noncognate form *musaʔ* 'egg' groups together Ohu, Moilsehu, Dalam and Umun and the noncognate form *ʔalus* 'black' groups together Hobai and Moilsehu. Also there is a vocalic variation in some forms for /a/ which groups these villages together. So *jai*, a variant of /ja/ 'fire', groups together Hobai, Ohu, Umun and (on some word lists) Amele. Also *g͡bai*, a variant of /*g͡ba*/ 'dog', groups these villages together.

The incidence of [p] displays a different pattern to that of [r] and [t] and [k] in that, whereas the incidence of [r] groups villages in the east and the incidence of [t] and [k] groups villages in the west, the incidence of [p] occurs right across these two groups, primarily across the villages in the south, viz. Dalam, Baitabu, Sah, Omuru, Scin, Ohuru and Umuin, but also in villages in the centre, viz. Aiha, Aijab, So and Hudini. In fact the incidence of [p] serves to separate the villages in the north, primarily Ajon, Sihan, Jelso, Hilu, Ord and Danben, off as a distinctive grouping. The incidence of [p] thus functions in the same way as the metathetic forms.

A sample set of Haija metathetic forms and their other dialect correspondents are given in Table (10). These items are taken from the word lists and from Roberts (1981). In these examples there would appear to be two metathetic processes both revolving around the +[high] vowels /i/ and /u/. One rule applies to the forms *ʔaigel*, *gugulus*, *jugu g͡boʔ*, *sigin* and *esiʔ*. This rule might be termed '/g/ displacement'. A /g/ occurring contiguous to a high vowel is shifted either towards the front or the back of the word. The other rule applies to the forms *jelefan*, *buiʔ*, *beilah*, *folosi*, *fimesi*, and *fefesi* and might be termed 'continuant and high vowel shift'. In this rule a continuant, i.e., a /f/, /w/, /l/ or /s/, simply changes places with a +[high] vowel. In this analysis I have assumed that the metathesis is working from the nonHaija forms to the Haija forms, i.e., that the Haija forms are innovative. This seems more likely in the case of *esiʔ*, for example, where the the /g/ must have become a glottal after switching places. I will present further comparative evidence below from the other languages in the Gum language family to substantiate this hypothesis.

Before leaving this section on phonological differences we need to decide what kind of dialectal distinctions they are. Chambers and Trudgill (1980: 115) maintain that there are two types of phonological isogloss, phonetic and phonemic. A phonetic isogloss involves contrasts in the phonetic output of two regions as the result of a more general or an additional phonological rule in one of them. Chambers and Trudgill give the rule of 'Canadian Raising' as an example of this where in Canadian English /ay/ and /aw/ have a noticeably high and centralized onset in words like *wife*, *mice*, *south* and *mouse*. A phonemic isogloss, on the other hand, requires a difference in phonemic inventories between dialect areas. Chambers and Trudgill give the example from England where Southern British English has a /ʊ/ in words like *put*, *butcher*, and *cushion* and a /ʌ/ in *putt*, *butter* and *blushing*. Whereas northern English dialects have /ʊ/ in all of these words and /ʌ/ does not exist.

The Amele isoglosses are both phonetic and phonemic. The /ɾ/ in the Huar dialect is an extra phoneme in that dialect. In word lists of the Huar dialect /l/ and /ɾ/ can occur in identical environments. The following examples were taken from the Umuin extended word list: *golaʔ* 'blood' and *ora* 'face', *meɾ* 'child' and *der* 'day', *faleʔ* 'to topple' and *gararеʔ* 'to dry', *ʔuɾ* 'crayfish' and *ʔur* 'heart'. So the /ɾ/ can be analyzed as an extra phoneme in the Huar dialect.

With respect to the /d/ <—> /t/ isogloss in Haija /d/ and /t/ contrast in identical environments, e.g., *deʔ* 'from' and *teʔ* 'to go up', *madu* 'an eel' and *matu* 'firstborn', *ud* 'a load' and *ʔut* 'spine of a sago leaf,' so they are analyzed as separate phonemes. This phonemic distinction tends to be neutralized in the Jagahala dialect, however. In one of the 1977 word lists taken from a Dalam man every item that has a /d/ in Haija is pronounced with a /t/. So, presumably, this speaker has no /d/ phoneme in his language. This isogloss is also phonemic but here it is the Haija dialect that is innovative and has the extra phoneme.

With respect to the /g/ <—> /k/ isogloss, [g] and [k] are allophones of the phoneme /g/ in Haija. The allophone [k] occurs in word final position and [g] elsewhere. As with the /d/ <—> /t/ isogloss it is the voiced phone /g/ that is neutralized in the Jagahala dialect. In the same 1977 word list as above the speaker had also neutralized all Haija [g]'s to [k]. In this case, however, there is no difference in phoneme inventories be-

tween the two dialects. It is just the case that the Jagahala speaker does not have a [g] allophonic variant in his language. So this isogloss is phonetic.

The /f/ <—> /p/ isogloss is also phonemic. In Haija /f/ has no significant allophones. The switch to /p/ in the Jagahala and Huar dialects therefore requires an extra phoneme in those dialects. Again the switch appears to be random. In the word lists all incidences of /p/ occur contiguous to /u/, e.g., *pululeʔ* 'to flap', *tepul* 'bone' and *pupu* 'wind', but there are other examples given in Roberts (1981) where this is not the case, e.g., *sapol* 'axe' and *gapat* 'raft'. So for this isogloss the Huar and Jagahala dialects have an extra /p/ phoneme to the Haija dialect.

6. Grammatical Differences

As mentioned above I also had a group of SIL-POC teams survey some of the Amele villages to obtain complete sets of verb paradigms. These data are reproduced in tables (11) and (12).

The verbs *feʔ* 'to see' and *hoʔ* 'to come' were chosen to illustrate the two basic types of verb paradigm in Amele. The SIL-POC teams obtained data from the five Amele villages Amele, Sah, So, Ohuru and Umuin. The data show that there is a basic division between the villages of Amele and Sah, on the one hand, which have paradigms and paradigmatic forms very similar to the Haija standard, and So, Ohuru and Umuin, on the other hand, which have paradigms and paradigmatic forms different from the Haija standard. These Huar dialect villages were reported to not have a distinction between today's past tense and yesterday's past tense which exists in the Haija and Jagahala dialects. In the Huar dialect the equivalent of the yesterday's past tense forms in Haija indicate both today's and yesterday's past tense in Huar. Comrie (1985: 87-88) makes the observation that a tense distinction between 'yesterday' and 'before yesterday', i.e., hesternal and pre-hesternal, occurs cross-linguisticically only in conjunction with the 'today' and 'before today', i.e., hodiernal and pre-hodiernal, distinction. The Huar dialect of Amele would therefore be an exception to this apparent universal. It was also reported that the relative future tense meaning 'about to ..' was not observed in the dialects spoken in Sah, Ohuru and Umuin. However, comparing the forms given for So with the optional future tense forms reported for Umuin with optional suffix *-nu* it may well be the case that relative future tense does exist in all dialects.

There are also morphological differences within most of the paradigms for the So, Ohuru and Umuin villages, most notably in the habitual past tense, sequential same subject, conditional same subject and simultaneous same subject paradigms, where metathetic forms occur, and also in the future tense paradigm, where more substantial morphological differences occur. I also know independently that speakers in Omuru follow the paradigm patterns in Ohuru since a person from Omuru village translated part of the Amele New Testament first draft in 1984-85.

7. Defining the Dialect Boundaries

The dialects of Amele therefore exhibit various structural types of isogloss, viz. phonetic, phonemic, morphological and lexical isoglosses. It is now possible to draw things together and chart the dialect boundaries. There are now a range of features we can use to distinguish the three dialects. Specifically these features are:

(i) the phonetic and phonemic isoglosses involving [l] <—> [r], [d] <—> [t], [g] <—> [k] and [f] <—> [p],

(ii) the metathetic forms,

(iii) the presence or absence of the today's past tense and

(iv) the presence or absence of the relative future tense.

The incidence of [r] forms distinguishes the villages belonging to the Huar dialect from the other dialects. Also these villages exhibit an absence of today's past tense forms and possibly also an absence of relative future tense forms. The villages belonging to the Huar dialect are displayed in Map (9). Omuru is included in the Huar dialect because of its high incidence of [r] forms and because its verb paradigms pattern with those of the other Huar villages. This is despite the fact that Omuru also exhibits a high incidence of [k] forms.

A high incidence of [t] and [k] forms distinguishes the villages belonging to the Jagahala dialect from the other dialects. These villages have today's past tense and relative future tense forms the same as the Haija dialect. The villages belonging to the Jagahala dialect are displayed in Map (10).

The Haija dialect villages are distinguished by a zero or low incidence of [r], [t] and [k] forms. Also a minimal incidence of [p] forms and a high incidence of metathetic forms separates these villages from those of the other dialects. The Haija dialect also has today's past tense and relative future tense forms. Map (11) displays all the dialect boundaries with their accompanying distinctive features.

8. The Source of the Dialect Differences

In this section I will offer an explanation for the different phonological features exhibited by the three Amele dialects. Once the features of the dialects have been established one might ask questions like, 'Where does the /r/ come from in the Huar dialect?' or 'Where does the devoicing in Jagahala dialect come from?' or 'Where do the metathetic forms in the Haija dialect come from?' For example, the neighbouring Austronesian language of Bilbil apparently has a /r/ phoneme. Does the Huar /r/ come from this source? I would say this is possible but unlikely. A better explanation is to found in the other languages of the Gum language family.

Table (13)[7] displays a set of [l] <—> [r] correspondences across the Haija and Huar dialects of Amele and the other five Gum languages. From these data it can be seen that the Huar /r/ comes from the other Gum languages, most notably the three languages to the west, Bau, Gumalu and Sihan (see Map (2)). Although there are /r/ forms in Isebe note that the Isebe pronouns are not /r/ forms as are the Huar, Bau, Gumalu and Sihan forms. Since pronouns are the type of items that will be the last to change I would judge the /r/ influence comes from Bau, Gumalu and Sihan. Notice too that Panim, the language immediately to the north of Amele, has no /r/ forms. It would seem then that the Haija dialect follows Panim in this respect.

Table (14) displays a set of [d] <—> [t] correspondences across the Haija and Jagahala dialects of Amele and the other five Gum languages. The [t] influence in the Jagahala dialect obviously comes from Bau and Gumalu. A set of comparative forms is also given in this Table to illustrate the fact that the /t/ phoneme does occur across all the Gum languages and Amele dialect groups, but Haija, Isebe, Panim and Sihan have an extra /d/ phoneme.

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[7] The examples in Tables (13-17) from the Isebe, Panim, Bau, Gumalu and Sihan languages are taken from Z'graggen (1980).

Table (15) displays a set of [g] <—> [k] correspondences across the same language groups. From these data it is clear that the devoicing influence in the Jagahala dialect comes from the two languages to the west, most notably Bau and Sihan, and that the voicing influence in Haija comes from the northern languages of Isebe and Panim.

It is more difficult to assess where the /p/ comes from in the Huar and Jagahala dialects but it is most likely also from Bau. The problem with trying to reconstruct [f] <—> [p] correspondences across the Gum languages is that what is an /f/ in Amele is often an /h/ in the other languages and vice versa. The evidence from the three forms compared in Table (16) is that /p/ most likely comes from Gumalu or Bau and that /f/ comes from Panim or Sihan.

A comparison of some metathetic forms is given in Table (17). This comparison indicates that the source of the Haija metathetic forms is probably from the Panim language. The clearest example would be for 'tongue' where only *beila-* (Panim) corresponds to *beilah* (Haija) and the nonHaija form *beliah* corresponds to the forms in Isebe, Bau, Gumalu and Sihan. For 'ripe' the Haija form *buiʔ* corresponds to the Isebe and Panim forms and the nonHaija form *biw* corresponds to the Bau form. For 'sand' the Haija form *esiʔ* corresponds to the Isebe, Panim and Sihan forms. Surprisingly the Sihan form for 'sand' appears to be phonetically identical to the Haija form. For some nonHaija speakers the form *egis* corresponds to the forms for Bau and Gumalu. For the other items, 'blood', 'bone' and 'two', the indications are that the Amele language as a whole is innovative in allowing metathesis for these forms. If we assume for 'bone' that the labial consonants in the items for Isebe, Bau and Gumalu correspond to /f/ in Amele, then the Amele language as a whole is following the form in the Panim language in this case.

9. Conclusion

This research shows that the factors that have influenced the phonological differences between the Amele dialects come from the nearest neighbours in the same language family. So for the Haija dialect voiced [d] and [g] and the metathetic forms come from the neighbouring Panim language. Whereas for the Huar and Jagahala dialects the influences come from the neighbouring Bau language, the presence of [r] and [p] with respect to Huar and the presence of voiceless [t] and [k] and also [p] with respect to Ja-

gahala. This is an interesting linguistic situation. Two features, i.e., the addition of an /r/ phoneme and voiceless /t/ and /k/ phonemes, from the same source, the Bau language in the west, have been split between the two Amele dialects of Huar and Jagahala respectively.

No data are available on the types of tense systems that exist in the Gum languages other than Amele so it is difficult to say if the lack of a today's past tense is an innovation in the Huar dialect or not. From the evidence of the metathetic forms it would seem that the Haija dialect is more innovative than the Huar dialect but in view of the language universal mentioned above one would expect the loss of a today's past tense distinction to be the innovation when there is an existing yesterday's past tense distinction. So on this basis one would expect the Huar dialect to be more innovative than the other Amele dialects. Further research into the morphosyntax of the other Gum languages would be required to determine the answer to this question.

One last point to note in conclusion is that as mentioned above a much more accurate picture of the dialect situation of a given language can be obtained when a speaker of that language, or at least someone with a good knowledge of that language, conducts the research.

References

Anderson, T.D. and J.R. Roberts. forthcoming. An exception to the hodiernal: Non-hodiernal distinction. **Studies in Language.**

Chambers, J.K. and P. Trudgill 1980. **Dialectology.** Cambridge: Cambridge University Press.

Comrie, B. 1985. **Tense.** Cambridge: Cambridge University Press.

Elliot, G. 1979. 'Dami grammar essentials'. ms. Ukarumpa, Papua New Guinea: Summer Institute of Linguistics.

Roberts, J.R. 1981. 'Amele-English Dictionary'. ms. Ukarumpa, Papua New Guinea: Summer Institute of Linguistics.

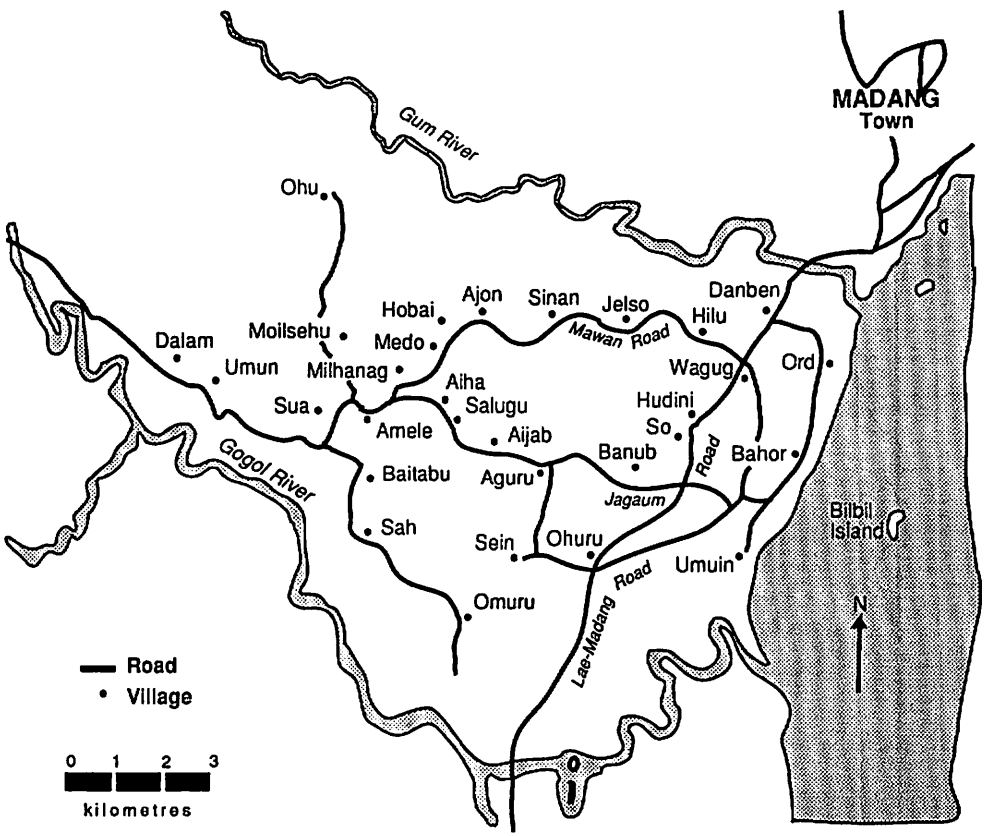
----- 1987. **Amele.** London: Croom Helm.

Z'graggen, J.A. 1975. The Languages of the Madang District, Papua New Guinea. Pacific Linguistics B-41. Canberra: Australian National University.

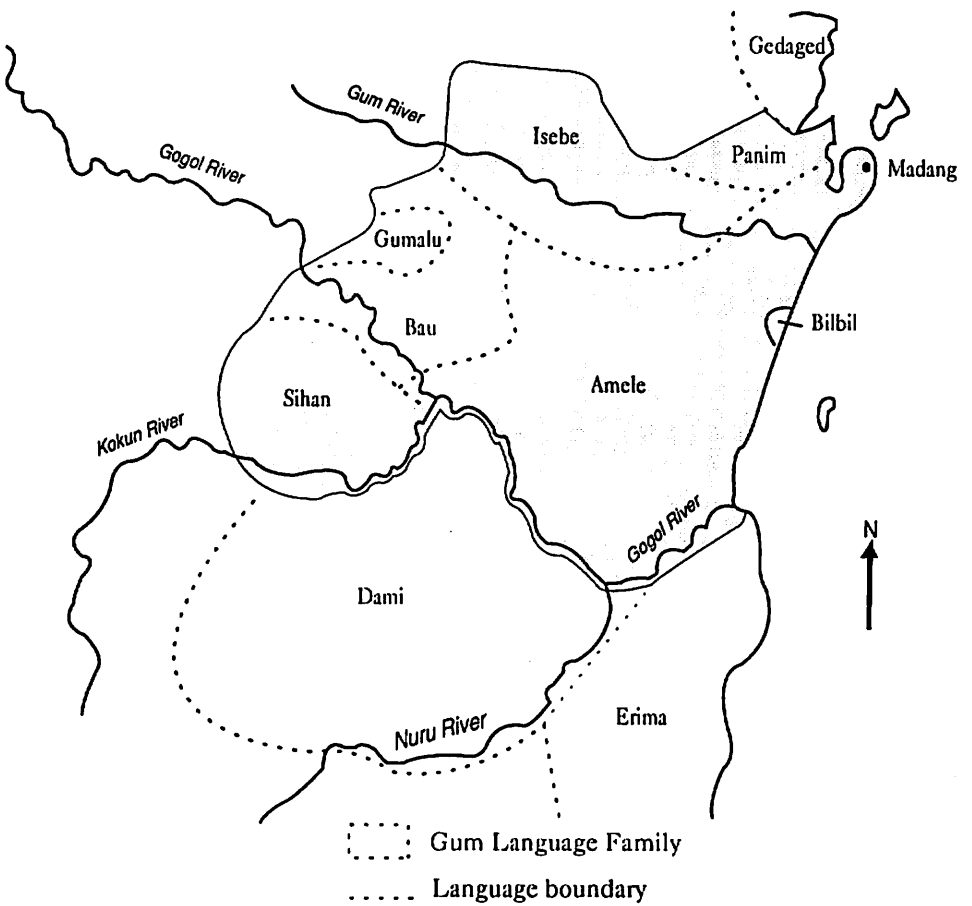
----- 1980. A comparative word list of the Mabuso languages, Madang Province, Papua New Guinea. Pacific Linguistics D-32. Canberra: Australian National University.

Appendix 1: Maps

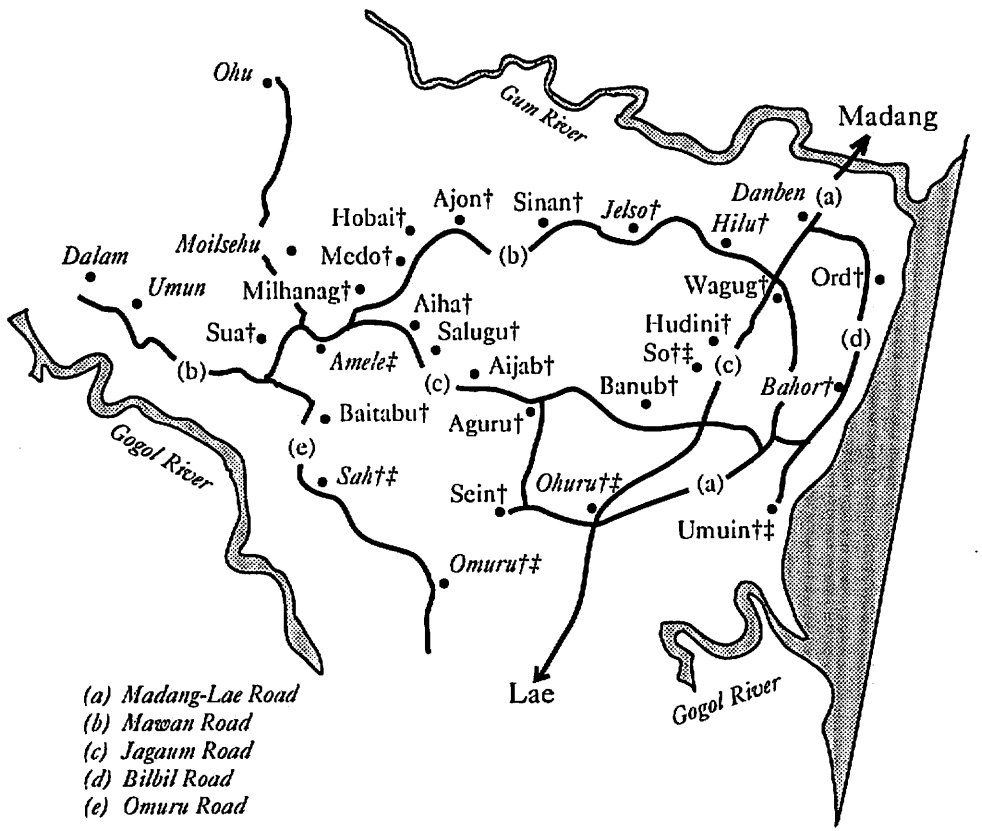
Map 1: Amele Language Area and Main Villages



Map 2: Gum Language Family

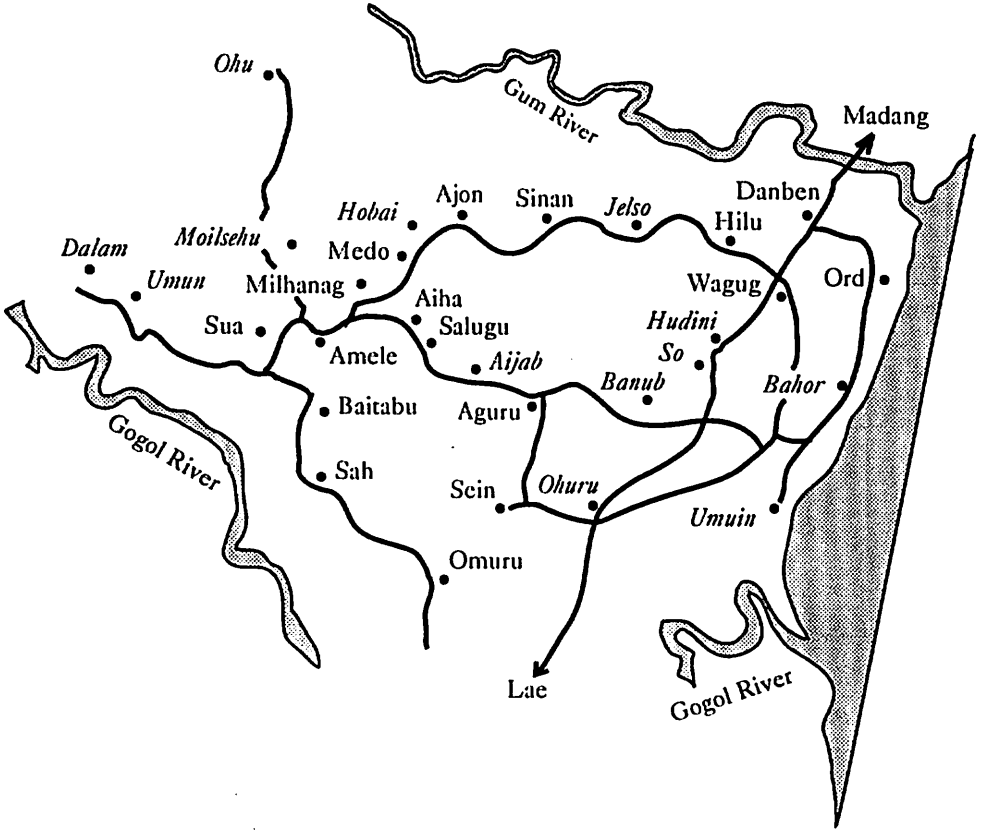


Map 3: Geographical Location of the Amele Villages Surveyed



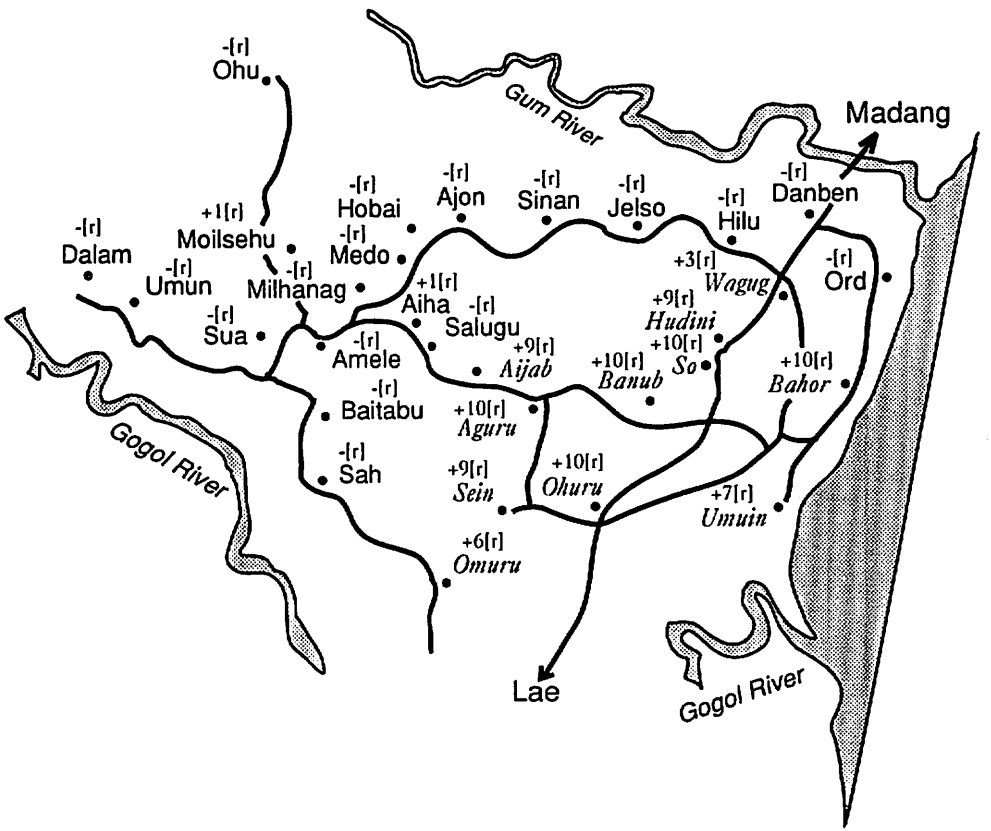
Villages surveyed in Jan. 1978 are italicized. Those surveyed in April 1978 are marked † and those surveyed in 1988 are marked ‡.

Map 4: Noncognate Amele Villages



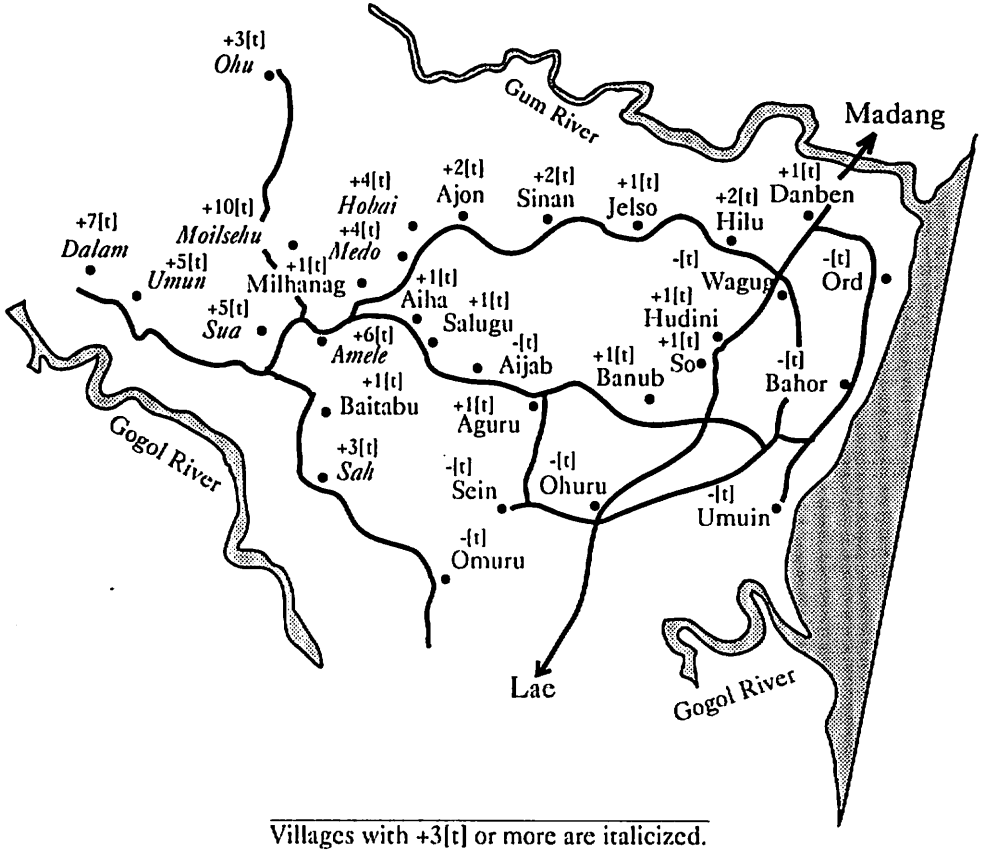
Noncognate villages are italicized.

Map 5: [l] <-> [r] Correspondences in Amele Villages



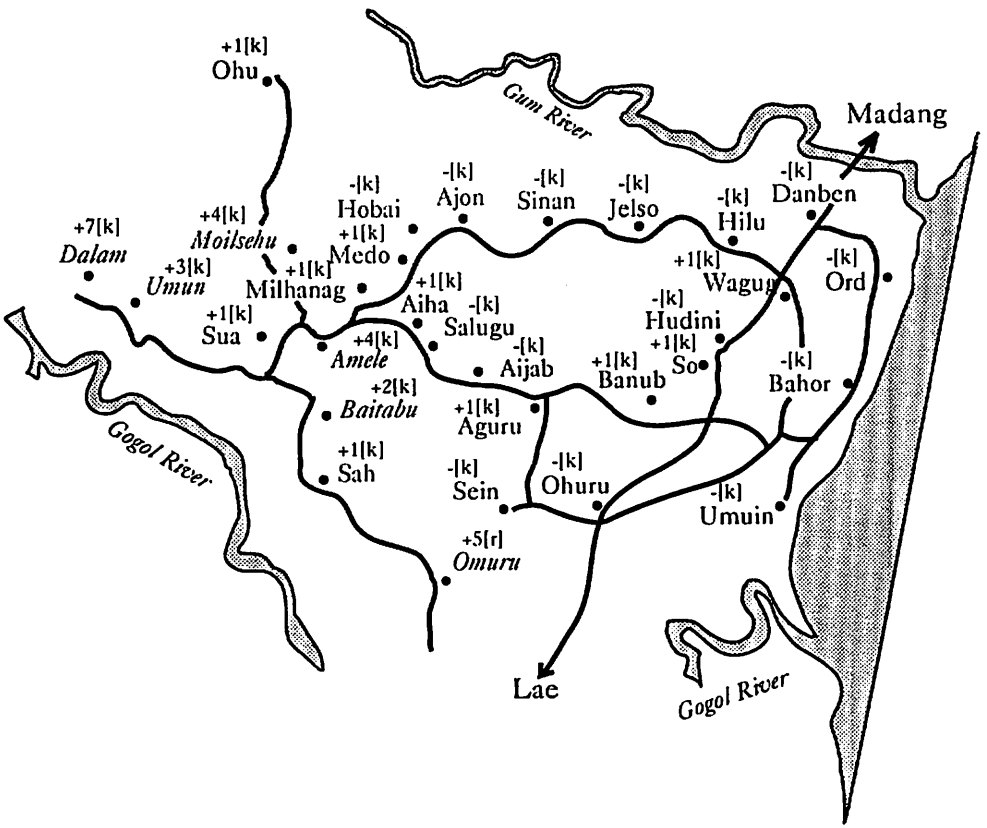
Villages with +2[r] or more are italicized.

Map 6: [d] <-> [t] Correspondences in Amele Villages



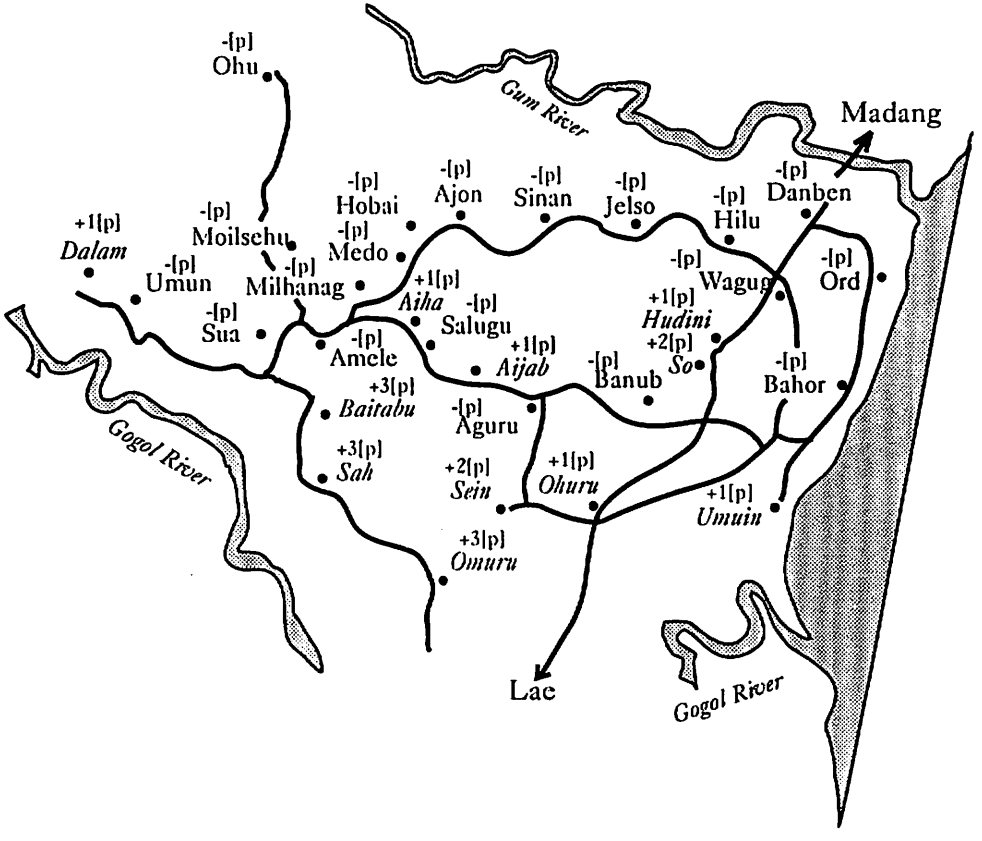
Villages with +3[t] or more are italicized.

Map 7: [g] <–> [k] Correspondences in Amele Villages



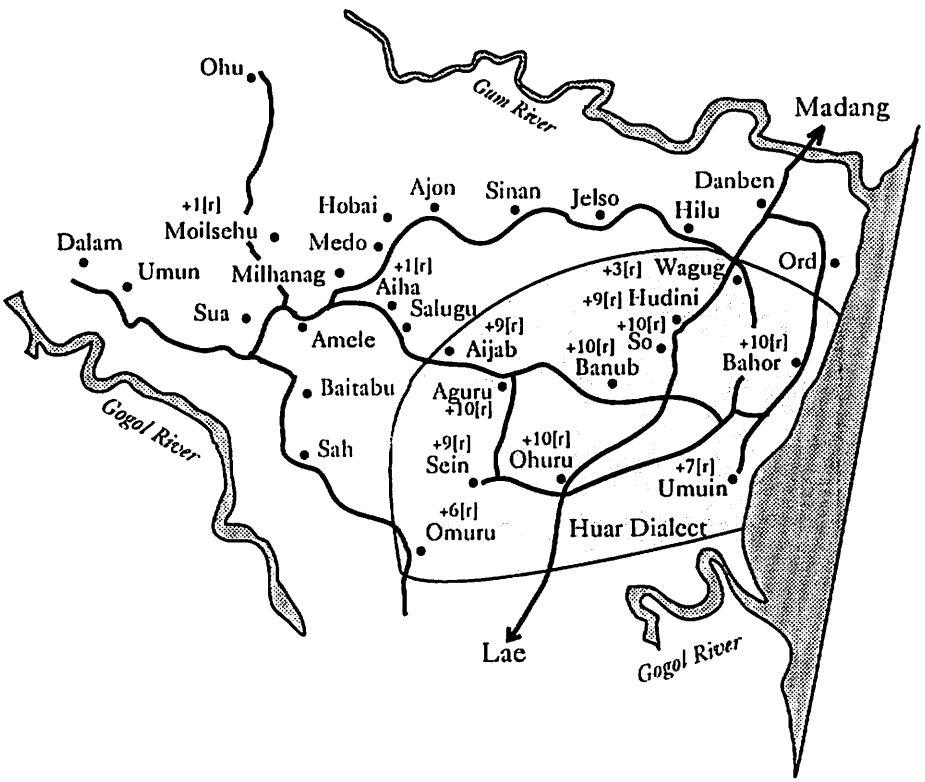
Villages with +2[k] or more are italicized.

Map 8: [f] <–> [p] Correspondences in Amele Villages

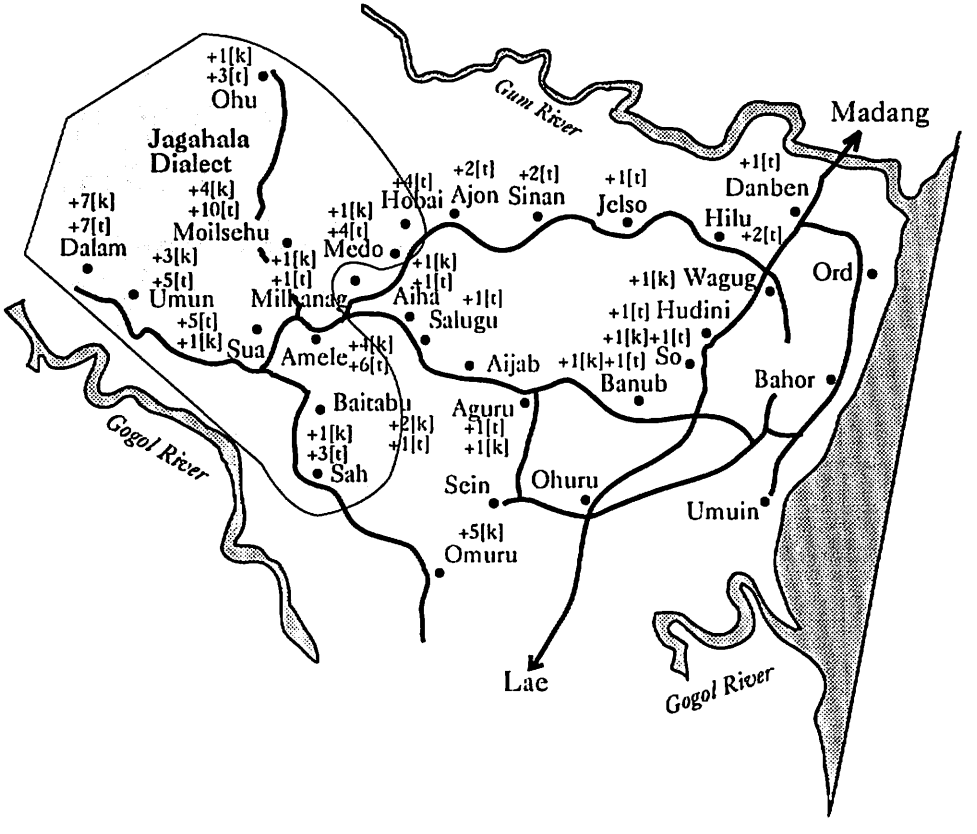


Villages with +1[p] or more are .

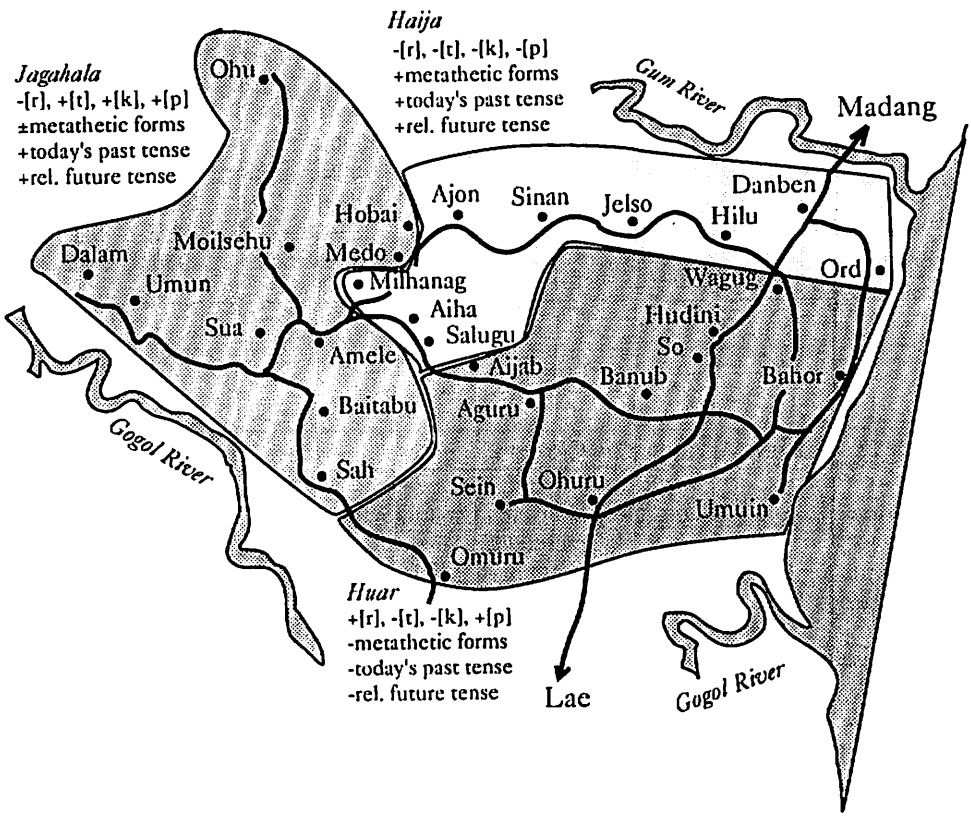
Map 9: Huar Dialect Area



Map 10:Jagahala Dialect Area



Map 11: Amele Dialects with Principle Phonological and Grammatical Distinguishing Features



Appendix 2: Tables

Table 1: Original Cognate Counts for the Amele Villages Surveyed in 1978

Amele										
90%	Bahor									
94%	88%	Dalam								
83%	92%	89%	Danben							
94%	88%	90%	96%	Jelso						
94%	87%	93%	91%	94%	Moilsehu					
86%	81%	86%	83%	82%	87%	Ohu				
90%	93%	88%	89%	89%	89%	80%	Ohuru			
94%	92%	93%	93%	96%	95%	83%	95%	Omuru		
94%	89%	94%	91%	94%	95%	83%	93%	98%	Sah	
89%	87%	92%	86%	89%	92%	84%	90%	92%	94%	Umun

Table 2: Villages Arranged by Closest Cognates

Amele	94% Dalam, Jelso, Moilsehu, Omuru, Sah
Bahor	93% Ohuru, 92% Omuru, 90% Amele
Dalam	94% Amele, Sah, 93% Omuru, Moilsehu, 92% Umun,
Danben	96% Jelso, 93% Omuru, 92% Amele, 91% Moilsehu, Sah
Jelso	96% Danben, Omuru, 94% Amele, Moilsehu, Sah
Moilsehu	95% Omuru, Sah, 94% Amele, Jelso
Ohu	87% Moilsehu, 86% Amele, 84% Umun, 83% Danben, Omuru, Sah
Ohuru	95% Omuru, 93% Bahor, Sah, 91% Jelso
Omuru	98% Sah, 96% Jelso, 95% Moilsehu, Ohuru, 94% Amele,
Sah	98% Omuru, 95% Moilsehu, 94% Amele, Dalam, Jelso, Umun
Umun	94% Sah, 92% Dalam, Moilsehu, Omuru

Table 3: A Summary of the Data from the Word Lists Taken in the Dialect Surveys Conducted in the Amele Language in 1978

		Haija Standard		Significant Variations	
		Phonetic Repr.	Phonemic Repr.		Villages of Occurrence
1.	hair	[gɔsi?]	/gosi?/		(the rest)
				[kɔsi?]	Aiha, Amele, Baitabu, Dalam, Moilsehu
				[kɔsik]	Aguru, Banub, So, Wagug
2.	head	[ilɔ]	/ilo/		(all)
3.	mouth (lips)	[?o]	/?o/		(all)
4.	nose	[mɛde]	/mede/		(the rest)
				[mɛte]	Amele Baitabu, Dalam, Milhanag, Moilsehu, Sah, Sua
				[mɛdɛh]	Ohu
				[mɛto]	Umun
5.	eye	[æmɛk]	/ameg/		(all)
6.	neck (front)	[be]	/be/		Aguru, Bahor, Dalam, Hilu, Hudini, Umuin, Wagug
				[bo]	Ohu
	(back)	[du]	/du/		Aiha, Ajab, Ajon, Amele, Hilu, Jelso, Ohuru, Omuru, Ord, Sah, So,
				[dul]	Ohu
				[dur]	Banub
				[tu]	Hobai, Medo, Moilsehu, Salugu, Sua
	(throat)	[dɔdɔl]	/dodol/		Baitabu, Jelso, Ohuru, Omuru, Sein
				[tɔdɔl]	Sah
7.	stomach	[waɷg]	/waug/		(the rest)
	(intestines)	[big]	/big/		Hilu

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
8.	skin	[gænæʔ]	/ganaʔ/		Banub, Ohu
				[kænæʔ]	Amele, Dalam
	(body)	[dɛʋɛk]	/deweg/		(the rest)
				[dɛʋɛʔ]	Bahor
				[tɛʋɛk]	Hobai, Moilsehu
9.	man	[dænə]	/dana/		(the rest)
				[tænə]	Amele, Dalam, Hobai, Moilsehu
10.	woman	[ʔaɪə]			Amele, Aguru, Aiha, Aijab, Banub, Hudini, Ohuru, Sah, Salugu, So, Sua
		≈ [ʔæjə]	/ʔaja/		(the rest)
				[æjo]	Ohu
11.	bird	[mæn fɷlulɛʔ]	/man fulule?/		(the rest)
				[fɷrurɛʔ]	Bahor
				[fɷrurɛt]	Aguru
				[fɷtutɛʔ]	Aijab
				[pɷlulɛʔ]	Aiha, Baitabu, Omuru, Sah, Sein
12.	dog	[g͡bæ]	/g͡ba/		(the rest)
				[g͡baɪ]	Hobai, Ohu, Umun
13.	dog bites	[g͡bæ g͡bu jɛnə]	/g͡ba g͡bu jena/		(the rest)
	(bite off)	[gældɔnə]	/galdona/		Hobai, Hudini, Ohu
14.	he sits	[bɪlɪnə]	/bilina/		(the rest)
				[bɪrɪnə]	Aijab, Bahor, Banub, Ohuru Omuru, Sein, So, Umuin
				[pɪlɪnə]	Moilsehu
15.	he stands	[tæʋɛnə]	/tawena/		(the rest)
				[taɪə]	Aguru, Aijab Baitabu, Banub, Hudini, Ohuru, Omuru, Sah, Salugu, Sein, So, Wagug

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
16.	road	[ɟi?]	/ji?/		(the rest)
				[ɟih]	Dalam
				[hi?]	Umun
				[?i?]	Ohu, Hobai
17.	stone	[mɛ:n]	/meen/		(the rest)
				[mæn]	Ajon, Amele, Hilu, Hobai, Medo, Milhanag
18.	big	[bɛn]	/ben/		(all)
19.	small	[næg]	/nag/		(the rest)
				[næ?æk]	Ohu
20.	fire	[ɟæ]	/ja/		(the rest)
				[ɟaɪ]	Hobai, Ohu, Umun
21.	smoke	[?æsu?]	/?asu?/		Omuru, Umun
	(tobacco)	[ɟæ?æs]	/ja?as/		Aguru, Aijab, Bahor, Baitabu, Banub, Hudini, Ohuru, Omuru, Sah, Salugu, Sein, So, Wagug
				[ɟæ ?æsu?]	Aiha, Dalam, Moilsehu, Sua
				[ɟæ ?æsut]	Medo, Moilsehu
				[ɟaɪ ?æsu?]	Ohu
				[ɟaɪ ?æsut]	Ajon, Hilu, Sinan
22.	ashes	[?ɔmis]	/?omis/		(the rest)
				[?æbælæ?][1]	Bahor, Banub, Hobai, Hudini, Jelso, Ohu, Ohuru, So, Umuin
				[?ɑɷ][1]	Umun
23.	ear	[dæhik]	/dahig/		(the rest)
				[dæhaɪk]	Aiha, Banub, Ohuru, So
				[tæhik]	Dalam, Hobai, Medo, Moilsehu Ohu, Umun
				[tæhaɪk]	Sua

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
24.	tongue	[beɪlæh]	/beilah/		(the rest)
				[bɛliæh]	Aguru, Aiha, Aijab, Amele, Baitabu, Dalam, Hobai, Medo, Milhanag, Moilsehu, Ohu, Omuru, Sah, Salugu, Sein, Sua, Omuru, Umun
25.	tooth	[aɪg]	/aig/		(the rest)
		≈ [maɪh]	/maih/		Jelso
				[aɪh]	Aguru, Aijab, Bahor, Banub, Hilu, Hudini, Ohuru, Ord, Omuru, So, Wagug
26.	breast	[sug]	/sug/		(all)
27.	hand	[ɛbɛn]	/eben/		(the rest)
				[ɛbɛʔ]	Aguru, Aijab,Banub, Bahor, Hudini, Ohuru, Omuru, Sein, So, Umuin, Wagug
				[ɛbɛk]	Ohu
28.	sun	[ʔæm]	/ʔam/		(the rest)
				[ʔæh]	Bahor, Banub, Hudini, Ohuru, Ord, So, Umuin, Wagug,
29.	moon	[jægɛl]	/jagel/		(the rest)
				[sɛl][1]	Aijab, Banub, Hudini, Ohuru, So, Umuin
30.	star(s)	[mælæg͡bə]	/malag͡ba/		(all)
31.	cloud	[taɪn]	/tain/		Jelso, Moilsehu, Sinan, Sua, Umun
				[taen]	Amele, Bahor, Hilu, Ohuru, Omuru, Sah, Sein
	(sky)	[sɑo]	/sao/		(the rest)
				[sɑɷ]	Baitabu, Hobai, Hudini, Medo, Ohu, Wagug
				[sɑɷʊ]	Dalam
32.	rain	[wæ]	/wa/		(all)
33.	water	[wæ]	/wa/		(all)
34.	tree	[næ]	/na/		(all)

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
35.	root(s)	[bɛbeɪk]	/bebeig/		(the rest)
				[bɛbɛdi?]	Bahor, Banub, Ohuru, Ord, Salugu, So
	(vine)	[hælu]	/halu/		Hilu, Jelso, Milhanag, Sinan,
36.	leaf	[bægæ?]	/baga?/		(all)
37.	meat	[?ɷhun]	/?uhun/		Amele, Bahor, Dalam, Ord
	(animal)	[dɔ:l]	/dool/		(the rest)
				[dɔ:r]	Aguru, Aijab, Banub, Hudini, Ohuru, Sein, So, Umuin, Wagug
				[tɔ:r]	Moilsehu
				[ɛg͡bə][1]	Ohu
38.	fat	[lælo]	/lalo/		(the rest)
				[lælu]	Ajon, Aiha, Baitabu, Medo, Milhanag, Moilsehu, Omuru, Sah, Salugu, Sua, Umun
				[munə][1]	Ohu
39.	egg	[wæg͡bə]	/wag͡bu/		(the rest)
	(small)	[næg]	/nag/		Aijab, Hilu, Medo, Milhanag
				[musæ?][1]	Dalam, Moilsehu, Ohu, Umun
40.	he eats	[jɛnə]	/jena/		(the rest)
				[jɪnə]	Banub, Hudini, So, Wagug
				[leɪo][1]	Umun
41.	he gives (me)[2]	[ɪtɛnə]	/itena/		(the rest)
				[ɪtɪnə]	Banub, Dalam, Hudini, Jelso, Omuru, So, Wagug
42.	he sees	[fɛnə]	/fena/		(the rest(?))[3]
	(watches)	[mɛ?idɔnə]	/me?idona/		Ohu

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
43.	he comes	[hɔnə]	/hona/		(the rest)
				[hɷnə]	Bahor, Banub, Hudini, So, Wagug
	(comes down)	[nɔnə]	/nona/		Baitabu
				[ɔbɔhæʋi][1]	Ohu
44.	louse	[mi]	/mi/		(all)
45.	one	[ɔsæhi?]	/osahi?/		(the rest)
		≈ [ɔsaɪ?]	/osai?/		
		≈ [ɔsɔl]	/osol/		Aiha, Amele, Baitabu, Dalam, Moilsehu, Ohuru, Omuru, Sah, Salugu, Sua
				[ɔsɔr]	Aguru, Aijab, Banub, Hudini, Sein, So, Umuin, Wagug
46.	two	[lɛ?is]	/le?is/		(all)
		≈ [leɪs]	/leis/		
47.	back (backbone)	[gɔgɔdɔh]	/gogodoh/		Ajon, Bahor, Baitabu, Hilu, Ohuru, Sah, Sein, Sinan, Umuin
				[kɔkɔdɔh]	Amele, Dalam, Moilsehu, Ohu, Omuru, Sah, Sua, Umun
	(behind)	[hɪbɪlɔh]	/hibiloh/		Medo, Milhana, Salugu
				[hɪbɪrɛ?]	Aguru, Aijab, Bahor, Banub, Hudini, Omuru, So
48.	leg	[ɟaɪh]	/jaih/		(the rest)
				[ɟɷh]	Dalam, Umun
49.	heart	[?ul]	/ʔul/		(the rest)
				[?ur]	Aguru, Aijab, Bahor, Banub, Hudini, Ohuru, Omuru, Sein, So, Umuin

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
50.	bone	[tɛful]	/teful/		(the rest)
				[tɛfur]	Aguru, Aijab, Bahor, Banub, Sein
				[tɛpul]	Baitabu, Dalam, Ohuru, Omuru, Sah, Wagug
				[tɛpur]	Aijab, Hudini, Ohuru, So, Umuin
				[tɛhul]	Ord
				[tɛhur]	Bahor
51.	blood	[gɔlæʔ]	/golaʔ/		(the rest)
				[kɔlæʔ]	Dalam, Medo, Milhanag, Moilsehu, Omuru, Umun
52.	wing	[hɔɪɔn]			(all)
		≈ [hɔɟɔn]	/hojon/		
				[sæluk][1]	Ohu
53.	fingernail	[hɪlɔʔ]	/hiloʔ/		(the rest)
				[hɪluk]	Ohu
54.	tail	[hɔhuk]	/hohug/		(the rest)
				[hɔhɔk]	Aguru, Aijab, Baitabu, Banub, Omuru, Sah, Salugu, Sein
		[bitiʔ]	/bitiʔ]		Bahor, Dalam
				[silimæn][1]	Ohuru
55.	father	[mɛmɛk]	/memeg/		(all)
56.	mother	[ænæk]	/anag/		(all)
57.	sister (of man)	[ʔɛbɪnæk]	/ʔebinag/		(the rest)
				[ʔæbinak]	Dalam
58.	name	[ijæn]	/ijan/		(the rest)
				[æjæn]	Aguru, Bahor, Banub, Hudini, Ohuru, Sein, So, Umuin, Wagug
				[jæn]	Ohu, Umun
59.	pig	[ho]	/ho/		(all)

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
60.	cassowary	[ʔɛsil]	/ʔesil/		(the rest)
				[ʔɛsir]	Aguru, Aijab, Bahor, Banub, Hudini, Ohuru, Omuru, Sein, So, Umuin, Wagug
61.	rat	[gɔʔi]	/goʔi/		(the rest)
				[kɔʔi]	Dalam, Omuru,
62.	snake	[mæn sɔnɔnɛʔ]	/man sononeʔ/		(the rest)
				[mæn sælælɛʔ][1]	So
63.	fish (crayfish)	[ʔul]	/ʔul/		(the rest)
				[ʔur]	Ohuru
	(animal)	[dɔ:l]	/dool/		Ajon, Sinan
				[dɔ:r]	Ohuru
				[tɔ:l]	Ohu
64.	banana	[mun]	/mun/		(all)
65.	house	[ɟo]	/jo/		(all)
66.	earth	[mæhə]	/maha/		(the rest)
				[mæho]	Ohu
67.	sand	[ɛsiʔ]	/esiʔ/		(the rest)
				[ɛsik]	Aijab, Hudini, Ord, Wagug
				[ɛgis]	Aguru, Bahor, Banub, Ohuru, So, Umuin
68.	mountain	[æluh]	/aluh/		(the rest)
				[æruh]	Aguru, Aijab, Bahor, Banub, Hudini, Ohuru, Omuru, Sein, So, Umuin
				[tutu][1]	Ohu
69.	wind	[fufu]	/fufu/		(the rest)
				[pupu]	Baitabu, Omuru, Sah, Sein, So
	(wind name)	[bæbæn]	/baban/		Hobai, Moilsehu, Ohu
				[ufe][1]	Umun

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
70.	night	[ʊtti?]	/witi?/		(the rest)
	(darkness)	[tu]	/tu/		Hobai, Sinan
71.	white (inanimate)	[sɛnɛnɛ?]	/senene?/		(the rest)
	white (animate)	[?ɑɷb]	/ʔaub/		Aguru, Bahor, Banub, Hobai, Hudini, Ohuru, Ord, So, Umuin
72.	black (inanimate)	[?æs]	/ʔas/		(the rest)
	black (animate)	[udu]	/udu/		
				[utuu]	Dalam, Umun
				[?ælus][1]	Hobai, Moilsehu
				[gægætu][1]	Ohu
73.	red	[gɔl]	/gol/		(the rest)
				[kɔl]	Amele, Baitabu, Dalam, Moilsehu, Omuru, Umun
74.	good	[ɪme]	/ɪme/		(all)
75.	long	[?ɛ?ɛlæ?]	/ʔe?ela?/		(the rest)
				[?ɛlæ?]	Amele, Aijab, Bahor, Dalam, Hudini, Medo, Moilsehu, Sah, Salugu, Sua
				[?ɛlɑɷ?]	Baitabu, Bahor, Ohuru, Omuru, Sein, Umuin
76.	short	[gɔhi?]	/gohi?/		(the rest)
				[kɔhi?]	Dalam, Omuru,
77.	heavy	[?ulumɛn]	/ʔulumen/		(the rest)
				[?urumɛn]	Aguru, Aijab, Bahor, Ohuru, Omuru, Sein, So
				[?ulbɛn]	Ord, Wagug
				[?urbɛn]	Banub, Hudini, Ohuru

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
78.	cold	[dæɛʔ]	/daeʔ/		(the rest)
				[tæɛʔ]	Amele, Moilsehu,
		[duæn]	/duan/		Medo
		[aɪbɛʔ]	/aibeʔ/		Aguru, Aijab, Ohuru, So, Umun
		[æbudɛʔ]	/abudeʔ]		Baitabu, Milhanag, Omuru, Sah, Sein, Salugu
				[katupɔʔ][1]	Dalam
79.	hot	[daɪn]	/dain/		(the rest)
				[taɪn]	Amele, Dalam, Medo, Moilsehu, Sinan, Umun
80.	old (inanimate)	[hɪlæh]	/hilah/		all Haija
				[hɪræh]	Aguru, Aijab, Bahor, Banub, Hudini, Ohuru, Sein, So, Umuin, Wagug
81.	new	[hɑɷn]	/haun/		(all)
82.	many	[mæti]	/mati/		Aguru, Ajon, Amele, Banub, Dalam, Hilu, Hudini, Jelso, Medo, Moilsehu, Ohu, So, Umun
				[mædi]	(the rest)
83.	what	[ɛːtə]	/eeta/		(all either or)
	(which)	[ʔɛl]	/ʔel/		
84.	who (sg)	[ɪn]	/in/		(all)
85.	wet	[wæʔæ]	/waʔa/		Probably all. Many informants appear to have understood Pidgin 'wet' to mean English 'wait' and have supplied the Amele word [g͡bɪlə] 'now'. Some have supplied the Amele word [su] 'breast' or 'breast milk'.
86.	full	[æm bɛʔ]	/am beʔ/		(the rest)
	(come up)	[ʔæli bɛʔ]	/ʔali beʔ/		Moilsehu, Ohu, Ord, Sinan, Sua
	(enough)	[ihɔʔ]	/ihoʔ/		Baitabu, Ohuru, Omuru, Sah, Sein

		Haija Phonetic	Standard Phonemic	Significant Variations	Villages of Occurrence
87.	three	[iɟɛd]	/ijed/		(the rest)
				[iɟɛt]	Aiha, Ajon, Amele, Dalam, Hilu, Moilsehu, Sinan, Sua
88.	four	[wæl ɔso]	/wal oso/		(all)
89.	no	[g͡bɛ:]	/g͡bee/		(all)
90.	he drinks	[wæ ɟɛnə]	/wa jena/		(all)
91.	he sleeps	[us nɪɟɛnə]	/us nijena/		(all)
92.	he dies	[ʔæl mɛnə]	/ʔal mena/		(the rest)
				[ʔær mɛnə]	Aguru, Aiha, Bahor, Banub, Hudini, Ohuru, Omuru, Sein, So
93.	he hits	[g͡bɔnə]	/g͡bona/		(all)
94.	he laughs	[æsælɛnə]	/asalena/		(all)
95.	I	[iɟə]	/ija/		(all)
96.	you (sg)	[hɪnə]	/hina/		Aiha, Aijab, Salugu, So, Wagug
				[ɪnə]	(the rest)
97.	he/she	[ug͡bə]	/ug͡ba/		(all)
98.	we (pl)	[ɛge]	/ege/		(all)
99.	you (pl)	[æge]	/age/		(all)
100	feathers	[dɔdo]	/dodo/		(the rest)
				[tɔto]	Sah, Sua,

Notes to table 4:

[1] Indicates a noncognate form.

[2] The verb to give has no verb stem but consists solely of indirect object, direct object and other verb morphology. There could therefore be 1470 possible forms of the verb 'to give' depending on who is giving what to whom.

[3] On some wordlists this item was left blank.

Table 4: Revised Cognate Counts for Amele Villages

Averages
98.86
98.86
98.24
Aguru 98.86
100 Aiha 98.86
99 99 Aijab* 98.48
100 100 99 Ajon 98.86
100 100 99 100 Amele 97.90
99 99 98 99 99 Bahor* 97.17
100 100 99 100 100 99 Baitabu 98.86
98 98 99 98 98 99 98 Banub* 98.86
98 98 97 98 98 97 98 96 Dalam* 97.59
100 100 99 100 100 99 100 98 98 Danben 97.90
100 100 99 100 100 99 100 98 98 100 Hilu 98.48
98 98 97 98 98 99 98 99 96 98 98 Hobai* 98.86
98 98 99 98 98 99 98 100 96 98 98 99 Hudini* 98.86
99 99 98 99 99 100 99 99 97 99 99 99 99 Jelso* 97.10
100 100 99 100 100 99 100 98 98 100 100 98 98 99 Medo 91.48
100 100 99 100 100 99 100 98 98 100 100 98 98 99 100 Milhanag 97.51
98 98 97 98 98 97 98 96 98 98 98 94 96 97 98 98 Moilschu* 98.86
91 91 92 91 91 92 91 93 92 91 91 92 93 92 91 91 92 Ohu* 98.86
98 98 97 98 98 99 98 98 96 98 98 98 98 99 98 98 96 91 Ohuru* 98.86
100 100 99 100 100 99 100 98 98 100 100 98 98 99 100 100 98 91 98 Omuru 98.86
100 100 99 100 100 99 100 98 98 100 100 98 98 99 100 100 98 91 98 100 Ord 98.86
100 100 99 100 100 99 100 98 98 100 100 98 98 99 100 100 98 91 98 100 100 Sah 98.86
100 100 99 100 100 99 100 98 98 100 100 98 98 99 100 100 98 91 98 100 100 100 Salagu 96.93
100 100 99 100 100 99 100 98 98 100 100 98 98 99 100 100 98 91 98 100 100 100 100 Sein 98.86
100 100 99 100 100 99 100 98 98 100 100 98 98 99 100 100 98 91 98 100 100 100 100 100 Sinan 97.90
97 97 98 97 97 98 97 99 95 97 97 97 99 98 97 97 95 93 97 97 97 97 97 97 97 So* 95.83
100 100 99 100 100 99 100 98 98 100 100 98 98 99 100 100 98 91 98 100 100 100 100 100 100 97 Sua 98.86
98 98 99 98 98 99 98 100 96 98 98 99 100 99 98 98 96 93 98 98 98 98 98 98 98 99 98 Umuin*
96 96 95 96 96 96 96 95 96 96 96 95 95 96 96 96 96 91 95 96 96 96 96 96 96 94 100 95 Umun*
100 100 99 100 100 99 100 98 98 100 100 98 98 99 100 100 98 91 98 100 100 100 100 100 100 97 100 100 100 Wagug

* Noncognate villages

Table 4: Revised Cognate Counts for Amele Villages (continued)

Order of average cognate counts:	98.86	All villages except below
	---	
	98.48	Bahor, Jelso
	98.24	Aijab
	97.90	Banub, Hudini, Umuin
	97.59	Hobai
	97.51	Ohuru
	97.17	Dalam
	97.10	Moilsehu
	96.93	So
	95.83	Umun
	91.48	Ohu

Table 5: Closest Cognate Villages for Villages with Noncognate Forms

Number of occurrences in closest cognate list	Villages with noncognate forms	Closest cognate villages	
0	Aijab	99%	Banub, Hudini, Umuin
4	Bahor	100%	Jelso
6	Banub	100%	Hudini, Umuin
2	Dalam	98%	Moilsehu
0	Hobai	99%	Bahor, Banub, Hudini, Jelso, Umuin
6	Hudini	100%	Banub, Umuin
4	Jelso	100%	Bahor
2	Moilsehu	98%	Dalam
0	Ohu	94%	Banub, Hudini, Umuin
0	Ohuru	99%	Bahor, Jelso
0	So	99%	Banub, Hudini, Umuin
6	Umuin	100%	Banub, Hudini
0	Umun	96%	Bahor, Dalam, Jelso, Moilsehu

Table 6: [l] <—> [r] Correspondences between the Haija and nonHaija Dialects

	11.	14.	37.	47.	49.	50.	60.	63.	68.	77.	80.	92.	Totals
Aguru	r		r	r	r	r	r		r	r	r	r	+10[r]
Aiha												r	+1[r]
Aijab		r	r	r	r	r	r		r	r	r		+9[r]
Ajon													-[r]
Amele													-[r]
Bahor	r	r		r	r	r	r		r	r	r	r	+10[r]
Baitabu													-[r]
Banub		r	r	r	r	r	r		r	r	r	r	+10[r]
Dalam													-[r]
Danben													-[r]
Hilu													-[r]
Hobai													-[r]
Hudini			r	r	r	r	r		r	r	r	r	+9[r]
Jelso													-[r]
Medo													-[r]
Milhanag													-[r]
Moilsehu		r											+1[r]
Ohu													-[r]
Ohuru		r	r		r	r	r	r	r	r	r	r	+10[r]
Omuru		r		r	r		r		r			r	+6[r]
Ord													-[r]
Sah													-[r]
Salugu													-[r]
Sein		r	r		r	r	r		r	r	r	r	+9[r]
Sinan													-[r]
So		r	r	r	r	r	r		r	r	r	r	+10[r]
Sua													-[r]
Umuin		r	r		r	r	r		r		r		+7[r]
Umun													-[r]
Wagug			r				r				r		+3[r]

Table 7: [d] <—> [t] Correspondences between the Haija and nonHaija Dialects

	4.	6.	8.	9.	23.	37.	63.	72.	78.	79.	82.	87.	100	Totals
Aguru											t			+1[t]
Aiha												t		+1[t]
Aijab											t	t		-[t]
Ajon		t												+2[t]
Amele	t			t					t	t	t	t		+6[t]
Bahor														-[t]
Baitabu	t													+1[t]
Banub											t			+1[t]
Dalam	t			t	t			t		t	t	t		+7[t]
Danben											t			+1[t]
Hilu											t	t		+2[t]
Hobai		t	t	t	t									+4[t]
Hudini											t			+1[t]
Jelso											t			+1[t]
Medo		t			t					t	t			+4[t]
Milhanag	t													+1[t]
Moilsehu	t	t	t	t	t	t			t	t	t	t		+10[t]
Ohu					t		t				t			+3[t]
Ohuru														-[t]
Omuru														-[t]
Ord														-[t]
Sah	t	t											t	+3[t]
Salugu		t												+1[t]
Sein														-[t]
Sinan										t		t		+2[t]
So											t			+1[t]
Sua	t	t			t							t	t	+5[t]
Umuin														-[t]
Umun	t				t			t		t	t			+5[t]
Wagug														-[t]

Table 8: [g] <—> [k] Correspondences between the Haija and nonHaija Dialects

	1.	8.	47.	51.	61.	73.	76.	Totals
Aguru	k							+1[k]
Aiha	k							+1[k]
Aijab								-[k]
Ajon								-[k]
Amele	k	k	k			k		+4[k]
Bahor								-[k]
Baitabu	k					k		+2[k]
Banub	k							+1[k]
Dalam	k	k	k	k	k	k	k	+7[k]
Danben								-[k]
Hilu								-[k]
Hobai								-[k]
Hudini								-[k]
Jelso								-[k]
Medo				k				+1[k]
Milhanag				k				+1[k]
Moilsehu	k		k	k		k		+4[k]
Ohu			k					+1[k]
Ohuru								-[k]
Omuru			k	k	k	k	k	+5[k]
Ord								-[k]
Sah			k					+1[k]
Salugu								-[k]
Sein								-[k]
Sinan								-[k]
So	k							+1[k]
Sua			k					+1[k]
Umuin								-[k]
Umun			k	k		k		+3[k]
Wagug	k							+1[k]

Table 9: [f] <—> [p] Correspondences between the Haija and nonHaija Dialects

	11.	50.	69.	Totals
Aguru				-[p]
Aiha	p			+1[p]
Aijab		p		+1[p]
Ajon				-[p]
Amele				-[p]
Bahor				-[p]
Baitabu	p	p	p	+3[p]
Banub				-[p]
Dalam		p		+1[p]
Danben				-[p]
Hilu				-[p]
Hobai				-[p]
Hudini		p		+1[p]
Jelso				-[p]
Medo				-[p]
Milhanag				-[p]
Moilsehu				-[p]
Ohu				-[p]
Ohuru		p		+1[p]
Omuru	p	p	p	+3[p]
Ord				-[p]
Sah	p	p	p	+3[p]
Salugu				-[p]
Sein	p		p	+2[p]
Sinan				-[p]
So		p	p	+2[p]
Sua				-[p]
Umuin		p		+1[p]
Umun				-[p]
Wagug		p		+1[p]

Table 10: A Contrast of Metathetic Forms in the Haija Dialect with Corresponding Forms in the Other Dialects

	Haija Metathetic Forms	Other Dialect Correspondents
afterbirth	je?efan	?efi?an
bamboo	?aileg	?aigel
corn	gugulus	galugus
half-closed	jugu g͡bo?	guju g͡bo?
knife	sigin	sinig
ripe	bui?	biw
sand	esi? (esig)	egis
tongue	beilah	beliah
they(2) used to see	folosi	forois
they(2) saw-SS*	fimesi	fimeis
as they(2) saw-SS	fefesi	fefeis

* S(ame) S(ubject following)

Table 11: Verb Paradigms Based on the Verb *fe?* 'to see'

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
1. Final verb forms.						
Present tense:						
1s	figina	figina	figina	figina	figina	figina
2s	fagana	fagana	fagana	fagana	fagana	fagana/fegena
3s	fena	fena	fena	fina	fena	fina
1d	fowona	fewona	fowona	fona	fowona	fowona
2/3d	fesina	fesina	fesina	fesina	fesina	fesina
1p	fogbona	fegbona	fogbona	fogbona	fogbona	fogbona
2/3p	fegina	fegina	fegina	fegina	fegina	fegina
Today's past tense[1]						
1s	figa	figa	figa	figen	figan	figen
2s	faga	faga	faga	fagan	fagan	fagan
3s	feia	feia	feia	fien	feian	fien
1d	fowa	fawa	fowa	fowan	fowan	fowan
2/3d	fesia	fesia	fesia	fesian	fesian	fesien
1p	fogba	fagba	fogba	fogban	fogban	fogban
2/3p	feiga	fegia	feiga	feigen	feigan	feigen
Yesterday's past tense:						
1s	figan	figan	figan	figen	figan	figen
2s	fagan	fagan	fagan	fagan	fagan	fagan
3s	feian	feian	feian	fien	feian	fien
1d	fowan	fawan	fowan	fowan	fowan	fowan
2/3d	fesian	fesian	fesian	fesian	fesian	fesien
1p	fogban	fagban	fogban	fogban	fogban	fogban
2/3p	feigan	feigan	feigan	feigen	feigan	feigen

1 The dialects spoken in So, Ohuru and Umuin do not distinguish today's past tense from yesterday's past tense. The form equivalent to Haija yesterday's past tense is used for both today and yesterday. See Anderson and Robert's (forthcoming) for further discussion of this phenomenon.

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
Remote past tense:						
1s	fem	fem	fem	fem	fem	fem
2s	fem	fem	fem	fem	fem	fem
3s	fen	fen	fen	fen	fen	fen
1d	foh	foh	foh	foh	foh	foh
2/3d	fesin	fesin	fesin	fesin	fesin	fesin
1p	fom	fom	fom	fom	fom	fom
2/3p	fein	fein	fein	fein	fein	fein
Habitual past tense:						
1s	folig	folig	folig	forig	forig	forig(inu)
2s	folog	folog	folog	forog	forog	forog(enu)
3s	foloi	foloi	foloi	foroi	foroi	fori(nu)
1d	folou	folou	folou	forou	forou	foro(nu)
2/3d	folosi	folosi	folois	forosi	forosi	forois(inu)
1p	folob	folob	folob	forob	forob	forob(nu)
2/3p	foloig	foloig	foloig	foroig	foroig	foroig(inu)
Future tense:						
1s	figen	figen	figen	figen	figon	figig(inu)
2s	fegan	fegan	fegen	fagan	fegon	fegeg(enu)
3s	figian	figian	figien	figanu	figion	figan(nu)
1d	fewan	fewan	fowen	founu	fowon	foon(nu)
2/3d	fowasan	fowasan	fowaisen	fowaisnu	fowason	fowais(nu)
1p	fegb͡an	fegb͡an	fegb͡en	feenu	fegnu	fe?(enu)
2/3p	fogb͡agan	fagb͡agan	fogb͡aigen	fogb͡aignu	fogb͡agon	fogb͡aig(inu)
Negative past tense:						
1s	felem	felem	felem	ferem	ferem	feremi
2s	felem	felem	felem	ferem	ferem	ferem
3s	fel	fel	fel	ferer	fer	fer
1d	foloh	foloh	foloh	foroh	foroh	foroh
2/3d	felesin	felesin	felesin	feresin	feresin	feresin
1p	folom	folom	folom	foum	forom	foromu
2/3p	felein	felein	felein	ferein	ferein	ferein

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
Negative future tense:						
1s	figaun	figaun	figin	figin	figin	figin
2s	fagaun	fagaun	fegen	fegen	fegen	fegen
3s	feiaun/finun	feiaun	fini/finun	fini/finun	fini	fini
1d	fowaun	fowaun	fowon	fowon	fowon	fowon
2/3d	fowasin	fowasin	fowasin	fowasin	fowasin	fowasin
1p	fo͡gbaun	fo͡gbaun	fo͡gbon	fo͡gbon	fo͡gbon	fo͡gbon
2/3p	fowain	fowain	fowain	fowain	fowain	fowain
Imperative mood:[2]						
1s	figa	figa	figa	figa	figa	figa
2s	faga	faga	faga	faga	faga	faga
3s	feia	feia	feia	feia	feia	fia
1d	fowa	fowa	fowa	fowa	fowa	fowa
2/3d	fesia	fesia	fesia	fesia	fesia	fesia
1p	fo͡gba	fo͡gba	fo͡gba	fo͡gba	fo͡gba	fo͡gba
2/3p	feiga	feiga	feiga	feiga	feiga	feiga
Contrafactual mood:						
1s	foum	foum	foum	foum	foum	foum
2s	foum	foum	foum	foum	foum	foum
3s	foub	foub	foub	foub	foub	foub
1d	fouh	fouh	fouh	fouh	fouh	fouh
2/3d	foub	foub	foub	foub	foub	foub
1p	foum	foum	foum	foum	foum	foum
2/3p	foub	foub	foub	foub	foub	foub

2 It is possible to have imperative mood in first and third person as well as second person in Amele as in the following examples:

(1) *ʔuli-te-ʔe-m h-ug-a.*
let-1S.O-DS-2S come-1S-IMP 'Let me come!'

(2) *ʔul-ade-ʔe-m h-oig-a.*
let-3.O-DS-2S come-3P-IMP 'Let them come!'

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
2. Medial verb forms.						
Relative future tense:[3]						
1s	fige	fige	-	figiginu	-	-
2s	fega	fega	-	faga	-	-
3s	figia	figia	-	figanu	-	-
1d	fewa	fewa	-	fowan	-	-
2/3d	fowasa	fowasa	-	fowaisinu	-	-
1p	fegba	fegba	-	fe?enu	-	-
2/3p	fogbaga	fogbaga	-	fogbaiginu	-	-
Sequential same subject following:						
1s	fimig	fimig	fimig	fimig	fimig	fimig
2s	fimeg	fimeg	fimeg	fimeg	fimeg	fimeg
3s	fimei	fimei	fimei	fimi	fimi	fimi
1d	fimeu	fimeu	fimou	fimou	fimeu	fimou
2/3d	fimesi	fimesi	fimeis	fimesi	fimeis	fimeis
1p	fimeb	fimeb	fimob	fimob	fimeb	fimob
2/3p	fimeig	fimeig	fimeig	fimeig	fimeig	fimeig
Sequential-conditional same subject following:						
1s	fifig	fifig	fifig	fifig	fifig	fifig
2s	fifeg	fifeg	fifeg	fifeg	fifeg	fifeg
3s	fifei	fifei	fifei	fifi	fifi	fifi
1d	fifeu	fifeu	fifou	fifou	fifeu	fifou
2/3d	fifesi	fifesi	fifeis	fifesi	fifeis	fifeis
1p	fifeb	fifeb	fifob	fifob	fifeb	fifob
2/3p	fifeig	fifeig	fifeig	fifeig	fifeig	fifeig

3 It was reported that the relative future tense was not observed in the dialects spoken in Sah, Ohuru and Umuin. However, comparing the forms given for So with the optional future tense forms reported for Umuin with optional suffix *-nu* it may well be the case that relative future tense exists in all dialects.

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
Sequential different subject following:						
1s	fe?emin	fe?emin	fe?im	fe?emin	fe?emin	fe?emin
2s	fe?em	fe?em	fe?em	fe?em	fe?em	fe?em
3s	fe?eb	fe?eb	fe?eb	fe?eb	fe?eb	fe?eb
1d	fe?ohul	fo?ohul	fo?ohul	fe?ohur	fe?ohur	fo?u
2/3d	fe?ebil	fe?ebil	fe?ib	fe?ebir	fe?ebir	fe?ebi
1p	fe?omun	fo?omun	fo?omun	fe?omun	fe?omun	fe?omu(n)
2/3p	fe?ebil	fe?ebil	fe?ib	fe?ebir	fe?ebir	fe?eb
Simultaneous same subject following:						
1s	fifig	fifig	-	fifig	fifig	fifibirig
2s	fefeg	fefeg	-	fefeg	fefeg	fifibireg
3s	fefei	fefei	-	fifi	fefei	fifibiri
1d	fifi	fifi	-	fifi	fofou	fifibirou
2/3d	fefesi	fefesi	-	fefesi	fefeis	fifibireis
1p	fefeb	fefeb	-	fefeb	fofob	fifibirob
2/3p	fefeig	fefeig	-	fefeig	fefeig	fifibireig
Simultaneous-realis different subject following:						
1s	fifigin	fifigin	fifigin	fifigin	fifigin	fifigin
2s	fefegen	fefegen	fefegen	fefegen	fefegen	fefegen
3s	fefen	fefen	fefen	fifin	fifin	fifin
1d	fofowon	fofowon	fofowon	fofowon	fofowon	fofowon
2/3d	fefesin	fefesin	fefesin	fefesin	fefesin	fefesin
1p	fofog͡bon	fofog͡bon	fofog͡bon	fofog͡bon	fofog͡bon	fofog͡bon
2/3p	fefegin	fefegin	fefegin	fefegin	fefegin	fefegin
Simultaneous-irrealis different subject following:						
1s	fefemin	fefemin	fefemin	fefemin	fefemin	fefemi(n)
2s	fefem	fefem	fefem	fefem	fefem	fefem
3s	fefeb	fefeb	fefeb	fefeb	fefeb	fefeb
1d	fofohul	fofohul	fofohul	fofohur	fofohur	fofohu(r)
2/3d	fefebil	fefebil	fefebil	fefebir	fefebir	fefebi(r)
1p	fofomun	fofomun	fofomun	fofomun	fofomun	fofomu(n)
2/3p	fefebil	fefebil	fefebil	fefebir	fefebir	fefebi(r)

Table 12: Verb Paradigms Based on the Verb *ho?* 'to see'

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
1. Final verb forms.						
Present tense:						
1s	hugina	hugina	hugina	hugina	hugina	hugina
2s	hogona	hogona	hogona	hogona	hogona	hogona
3s	hona	hona	hona	huna	hona	huna
1d	howona	howona	howona	hona	howona	howona
2/3d	hosina	hosina	hosina	hosina	hosina	hosina
1p	hog͡bona	hog͡bona	hog͡bona	hog͡bona	hog͡bona	hog͡bona
2/3p	hogina	hogina	hogina	hogina	hogina	hogina
Today's past tense:[1]						
1s	huga	huga	huga	hugen	hugan	hugen
2s	hoga	hoga	hoga	hogan	hogan	hogan
3s	hoia	hoia	hoia	huen	hoian	huen
1d	howa	howa	howa	howan	howan	howan
2/3d	hosia	hosia	hosia	hosian	hosian	hosien
1p	hog͡ba	hog͡ba	hog͡ba	hog͡ban	hog͡ban	hog͡ban
2/3p	hoiga	hogia	hoiga	hoigen	hoigan	hoigen
Yesterday's past tense:						
1s	hugan	hugan	hugan	hugen	hugan	hugen
2s	hogan	hogan	hogan	hogan	hogan	hogan
3s	hoian	hoian	hoian	huen	hoian	huen
1d	howan	howan	howan	howan	howan	howan
2/3d	hosian	hosian	hosian	hosian	hosian	hosien
1p	hog͡ban	hog͡ban	hog͡ban	hog͡ban	hog͡ban	hog͡ban
2/3p	hoigan	hoigan	hoigan	hoigen	hoigan	hoigen
Remote past tense:						
1s	hom	hom	hom	hom	hom	hom
2s	hom	hom	hom	hom	hom	hom
3s	hon	hon	hon	hon	hon	hon
1d	hoh	hoh	hoh	hoh	hoh	hoh
2/3d	hosin	hosin	hosin	hosin	hosin	hosin
1p	hom	hom	hom	hom	hom	hom
2/3p	hoin	hoin	hoin	hoin	hoin	hoin

[1] See footnote 1 in Table 11.

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
Habitual past tense:						
1s	holig	holig	holig	horig	horig	horig(inu)
2s	holog	holog	holog	horog	horog	horog(enu)
3s	holoi	holoi	holoi	horoi	horoi	hori(nu)
1d	holou	holou	holou	horou	horou	horo(nu)
2/3d	holosi	holosi	holois	horosi	horosi	horois(inu)
1p	holob	holob	holob	horob	horob	horob(nu)
2/3p	holoig	holoig	holoig	horoig	horoig	horoig(inu)
Future tense:						
1s	hugen	hugen	hugen	hugen	hugon	hugig(inu)
2s	hogan	hogan	hogen	hogan	hogon	hogog(enu)
3s	hugian	hugian	hugien	huganu	hugion	hugan(nu)
1d	howan	howan	howen	hounu	howon	hoon(nu)
2/3d	howasan	howasan	howaisen	howaisnu	howason	howais(nu)
1p	hog͡ban	hog͡ban	hog͡ben	hoonu	hognu	ho?(enu)
2/3p	hog͡bagan	hog͡bagan	hog͡baigen	hog͡baignu	hog͡bagon	hog͡baig(inu)
Negative past tense:						
1s	holom	holom	holom	horom	horom	horomi
2s	holom	holom	holom	horom	horom	horom
3s	hol	hol	hol	horor	hor	hor
1d	holoh	holoh	holoh	horoh	horoh	horoh
2/3d	holosin	holosin	holosin	horosin	horosin	horosin
1p	holom	holom	holom	houm	horom	horomu
2/3p	holoin	holoin	holoin	horoin	horoin	horoin
Negative future tense:						
1s	hugaun	hugaun	hugin	hugin	hugin	hugin
2s	hogaun	hogaun	hogon	hogon	hogon	hogon
3s	hoiaun/ hunun	hoiaun	huni/ hunun	huni/ hunun	huni	huni
1d	howaun	howaun	howon	howon	howon	howon
2/3d	howasin	howasin	howasin	howasin	howasin	howasin
1p	hog͡baun	hog͡baun	hog͡bon	hog͡bon	hog͡bon	hog͡bon
2/3p	howain	howain	howain	howain	howain	howain

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
Imperative mood:[2]						
1s	huga	huga	huga	huga	huga	huga
2s	hoga	hoga	hoga	hoga	hoga	hoga
3s	hoia	hoia	hoia	hoia	hoia	hua
1d	howa	howa	howa	howa	howa	howa
2/3d	hosia	hosia	hosia	hosia	hosia	hosia
1p	hog͡ba	hog͡ba	hog͡ba	hog͡ba	hog͡ba	hog͡ba
2/3p	hoiga	hoiga	hoiga	hoiga	hoiga	hoiga
Contrafactual mood:						
1s	houm	houm	houm	houm	houm	houm
2s	houm	houm	houm	houm	houm	houm
3s	houb	houb	houb	houb	houb	houb
1d	houh	houh	houh	houh	houh	houh
2/3d	houb	houb	houb	houb	houb	houb
1p	houm	houm	houm	houm	houm	houm
2/3p	houb	houb	houb	houb	houb	houb

2. Medial verb forms.

Relative future tense:[3]						
1s	huge	huge	-	hugiginu	-	-
2s	hoga	hoga	-	hoga	-	-
3s	hugia	hugia	-	huganu	-	-
1d	howa	howa	-	howan	-	-
2/3d	howasa	howasa	-	howaisinu	-	-
1p	hog͡ba	hog͡ba	-	ho?onu	-	-
2/3p	hog͡baga	hog͡baga	-	hog͡baiginu	-	-
Sequential same subject following:						
1s	humig	humig	humig	humig	humig	humig
2s	humeg	humeg	humeg	humeg	humeg	humeg
3s	humei	humei	humei	humi	humi	humi
1d	humeu	humeu	humou	humou	humeu	humou
2/3d	humesi	humesi	humeis	humesi	humeis	humeis
1p	humeb	humeb	humob	humob	humeb	humob
2/3p	humeig	humeig	humeig	humeig	humeig	humeig

2 See footnote 2 in Table 11.

3 See footnote 3 in Table 12.

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
Sequential-conditional same subject following:						
1s	hufig	hufig	hufig	hufig	hufig	hufig
2s	hufeg	hufeg	hufeg	hufeg	hufeg	hufeg
3s	hufei	hufei	hufei	hufi	hufi	hufi
1d	hufeu	hufeu	hufou	hufou	hufeu	hufou
2/3d	hufesi	hufesi	hufeis	hufesi	hufeis	hufeis
1p	hufeb	hufeb	hufob	hufob	hufeb	hufob
2/3p	hufeig	hufeig	hufeig	hufeig	hufeig	hufeig
Sequential different subject following:						
1s	ho?omin	ho?omin	ho?im	ho?omin	ho?omin	ho?omin
2s	ho?om	ho?om	ho?om	ho?om	ho?om	ho?om
3s	ho?ob	ho?ob	ho?ob	ho?ob	ho?ob	ho?ob
1d	ho?ohul	ho?ohul	ho?ohul	ho?ohur	ho?ohur	ho?u
2/3d	ho?obil	ho?obil	ho?ib	ho?obir	ho?obir	ho?obi
1p	ho?omun	ho?omun	ho?omun	ho?omun	ho?omun	ho?omu(n)
2/3p	ho?obil	ho?obil	ho?ob	ho?obir	ho?obir	ho?ob
Simultaneous same subject following:						
1s	huhug	huhug	-	huhug	huhug	huhubirig
2s	hohog	hohog	-	hohog	hohog	huhubireg
3s	hohoi	hohoi	-	huhu	hohoi	huhubiri
1d	huhu	huhu	-	huhu	hohou	huhubirou
2/3d	hohosi	hohosi	-	hohosi	hohois	huhubireis
1p	hohob	hohob	-	hohob	hohob	huhubirob
2/3p	hohoig	hohoig	-	hohoig	hohoig	huhubireig
Simultaneous-realis different subject following:						
1s	huhugin	huhugin	huhugin	huhugin	huhugin	huhugin
2s	hohogon	hohogon	hohogon	hohogon	hohogon	hohogon
3s	hohon	hohon	hohon	huhun	huhun	huhun
1d	hohowon	hohowon	hohowon	hohowon	hohowon	hohowon
2/3d	hohosin	hohosin	hohosin	hohosin	hohosin	hohosin
1p	hohog͡bon	hohog͡bon	hohog͡bon	hohog͡bon	hohog͡bon	hohog͡bon
2/3p	hohogin	hohogin	hohogin	hohogin	hohogin	hohogin

	Haija standard	Amele village	Sah village	So village	Ohuru village	Umuin village
Simultaneous-irrealis different subject following:						
1s	hohomin	hohomin	hohomin	hohomin	hohomin	hohomi(n)
2s	hohom	hohom	hohom	hohom	hohom	hohom
3s	hohob	hohob	hohob	hohob	hohob	hohob
1d	hohohul	hohohul	hohohul	hohohur	hohohur	hohohu(r)
2/3d	hohobil	hohobil	hohobil	hohobir	hohobir	hohobi(r)
1p	hohomun	hohomun	hohomun	hohomun	hohomun	hohomu(n)
2/3p	hohobil	hohobil	hohobil	hohobir	hohobir	hohobi(r)

Table 13: [l] <—> [r] Correspondences Across the Haija and Huar Dialects of Amele and the other Gum Languages

	Haija dial.	Huar dial.	Isebe lang.	Panim lang.	Bau lang.	Gumalu lang.	Sihan lang.
animal	do:l	do:r	do:r	dɔl	tɔ:l	-	-
cassowary	esil	esir	ɛhir	ɛhil	ɛhir	ɛhir	eir
child	mel	mel	mɛl	-	mɛr	mɛl	-
face	ola	ora	-	-	ora	ora	orʌ-
head	ilo	ilo	-	-	hirou	irou	irʌrʌ-
heart	ʔul	ʔur	uru-	uli-	uru-	uru-	uru-
heavy	ʔulumen	ʔurumen	urumɛn	ulumɛn	ulumen	urumɛn	urumɛn
throat	dodol	dodor	dodɔr	dodol	totɔr	totɔr	dodori
tongue	beilah	beliah	bɛlɛa-	beila-	pɛria-	beria-	bɛlia-
die	ʔal meʔ	ʔar meʔ	armi-	almɛ-	armɛ-	armɛ-	armɛ-
fly	fulule?	fulule?	harurui-	fululɛ-	haruruɛ-	-	fururɛ-
sit	bileʔ	bireʔ	bil-	bil-	pir-	bir-	bidɛ-
we(2)	ele	ere	ilɛ	ilɛ	irɛ	irɛ	irɛ
they(2)	ale	are	ʌlɛ	ʌlɛ	arɛ	arɛ	uʔparɛ

Table 14: [d] <—> [t] Correspondences Across the Haija and Jagahala Dialects of Amele and the other Gum Languages

	Haija dial.	Jagahala dial.	Isebe lang.	Panim lang.	Bau lang.	Gumalu lang.	Sihan lang.
animal	do:l	to:l	do:r	dɔl	tɔ:l	-	-
black	udu	utu	-	-	-	-	-
body	deweg	teweg	-	-	-	-	-
ear	dahig	tahig	dahi-	dahi-	tahi-	tahi-	dai-
feathers	dodo	toto	-	-	-	-	-
ghost	dolog	tolog	-	-	-	-	-
girl	aid	ait	aid	-	ait	-	-
hot	dain	tain	daini	dainai	tain?a	-	dain
man	dana	tana	dʌna	dana	dana	dana	dana
many	madi	mati	-	-	mati?a	-	-
nape	du	tu	du	du	tu	du	du
nose	mede	mete	mɛdɛ	mɛdɛ	mɛtɛ	mɛtɛ	mɛdɛ
three	ijed	ijet	-	-	-	-	-
throat	dodol	totol	dodɔr	dodol	totɔr	totɔr	dodori
know	do?	do?	do-	-	to-	-	-
cf.							
brother	?otig	?otig	oti-	-	oti-	-	-
butterfly	babalit	babalit	babʌrit	babalit	paparit	papʌrit	papʌrit
old	toia	toia	-	-	toya	-	-
straight	tutu?	tutu?	t^hut^huadi	tutuadi	tutuh	tutu	tutu
thigh	tu?uh	tu?uh	-	$t^hu?u$-	tu?ulu-	tu?uli-	tu?uru-

Table 15: [g] <—> [k] Correspondences Across the Haija and Jagahala Dialects of Amele and the other Gum Languages

	Haija dial.	Jagahala dial.	Isebe lang.	Panim lang.	Bau lang.	Gumalu lang.	Sihan lang.
back	gogodoh	kokodoh	gogodo-	gogodo-	kokoto-	-	kokodo-
blood*	gola?	kola?	yoga-	zogʌ-	roka-	roga-	-
hair	gosi?	kosi?	-	-	-	-	-
rat	go?i	ko?i	go?i	go?i	ko?i	ko?i	ko?i
short	gohi?	kohi?	-	gohi	kofi	kofiu	kotin
skin	gana?	kana?	gʌna	gana	kanan	ganan	kana

Table 16: [f] <—> [p] Correspondences Across the Amele Dialects and the other Gum Languages

	Haija dial.	Jagahala dial.	Huar dial.	Isebe lang.	Panim lang.	Bau lang.	Gumalu lang.	Sihan lang.
axe	safol	sapol	sapor	-	-	sapol	sapɔr	safora
bone	teful	tepul	tepur	bɛhili	tɛfulu	fɛhul	pɛhiri	ɛfai
glide	fulule?	pulule?	purure?	-	-	-	piriratɛ	fururɛ

* The Amele form for 'blood' is metathetic compared to other forms in the Gum languages but the [g] <—> [k] correspondence still applies.

Table 17: Metathetic Correspondences Between the Amele Dialects and the other Gum Languages

	Haija dial.	nonHaija dial.	Isebe lang.	Panim lang.	Bau lang.	Gumalu lang.	Sihan lang.
blood	gola?	gola? kola?	yoga-	zogʌ-	roka-	roga-	-
bone	teful	tefur tepul	bɛhili-	tɛfulu-	fɛhili-	pɛhiri-	ɛfai-
ripe*	bui?	biw	bu	bu:	biu	-	bi:wa
sand*	esi?	esig egis	ɛsig	ɛsi	i:kis	igis	ɛsi?
tongue*	beilah	beliah	bɛlɛa-	beila-	pɛria-	bɛria-	bɛlia-
two	le?is	leis	ɛris	ɛlis	ɛris	ɛrit	ɛrit

* These items are also given in table (10).