CHAPTER 2

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THE ANGAN LANGUAGE FAMILY

Richard G. Lloyd

2.1. The Anga People and their Languages

This comparison presents the twelve Angan Languages as a Family, though one language is diverse from the rest. Angan languages were formerly called Kukukuku (see Appendix A for a discussion of these names). Angan languages are unrelated to the Austronesian and Eleman languages which border them. They show a very distant relationship to the East New Guinea Highlands languages (5%), the Kunimaipan languages (4%) and the Pawaian language (3%).

The relationships between the languages were established by the comparison of lexical lists ranging from 161 to 179 words. Cognates were recognised by inspection, any doubtful instance having at least half the phonemes the same and in the same order or regular sound shifts accounting for the difference. The lexical comparison is supplemented by outlines of the phonology of each language. Finally available grammatical outlines are presented. Very extensive materials are available in **Kapau, Ampale, Baruya** and **Angaataha.** Some material is available in **Menya** and a little in **Yagwoia** and **Simbari.** Dr Hans Fischer worked with one dialect of **Yagwoia** and the **Kawacha** language. He also has some information on the **Kamasa** language (see Appendix G). Only word lists were available in **Ankave, Ivori, Lohiki, Kawacha** and **Kamasa.**

Some Angan languages appeared in early word lists published in the Annual Reports (AR) of Papua (or British New Guinea). Most lists are of the **Kapau** language, but there are two **Lohiki** lists. **Lohiki** is called **Kukukuku** on page 173 of AR 1912-1913. It is called **Mai-hea-ri**, an **Haura** (Eleman) name for **Kukukuku**, on page 95 of AR 1917-1918. This last list is not a very accurate one but is definitely **Lohiki.**

In the 1930s Dr Capell took a wordlist and some grammatical notes of a language he called **Obi**, which is also the **Lohiki** language.

Capell (1962) talks of the 'congeries of tribes known collectively as 'Kukukuku'.' He says his **Obi** language is different from **Kaviropi (Kapau)**. He mentions three groups of 'Kukukuku', the **Upper Tauri (Menya)**, **Eastern Vailala (Lohiki)** and **Lakekamu (Kapau)**. He says 'Nothing more can be said at present about these inland peoples: they remain a subject for future study', page 141. This present study is a partial answer to his statements and supports the above claims.

Wurm (1960) mentions the Anga as a possible linguistic grouping. In Capell (1962) Wurm also notes the **Wantakia (Baruya)**, **Simbari** and **Menyamya (Yagwoia)**.

Drs. Voegelin (1965:40) present a Kukukuku Family, which included non-Angan languages. They over emphasized Capell's reference to **Samberigi** which is better known as **Sau** of the West Central Family of the East New Guinea Highlands Stock. The languages they mention around Mumeng are Austronesian and languages (5) and (6) of their list are the two dialects of **Baruya**. The alternate name **Menyamya** (7) had been used for **Yagwoia** speakers, but it is more appropriate for the **Menya** language. Language (8) **Banir** covers Dr Fischer's work and probably refers to **Ampale (Sesere)**.

Franklin (1968:40n) reports on Voegelins' work and includes some comments by this author.

In the **Ampale**, **Angaataha** and **Baruya** languages Text Concordances have been made on the IBM 1410 computer at the University of Oklahoma by the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma Research Institute and sponsored by grants from the National Science Foundation.

The main field work and resultant analysis were carried out in the latter half of 1971. The author's interest however extends back as far as 1961 when he and his wife began working in the **Baruya** language and collected short word lists from Anga men who came to work in the area.

The author acknowledges the very real help of personnel from the Lutheran Mission, Menyamya, the New Tribes Mission, Slate Creek and Marawaka, and the United Church at Moru. Without also the extensive unpublished manuscripts made available from SIL colleagues (see Bibliography) the comparative aspects noted in this paper would have been impossible.

Administration officers at Kerema, Ihu, Kaintiba and Menyamya freely offered the use of their interpreters and made maps and census figures available. The interpreters John, from Ihu, and Gunga Din, from Kerema, gave many hours help.

The Angan languages are spoken in an area of approximately 4,500 square miles straddling the Papuan New Guinea border between 145°30' and 146°40' East longitude and between 6°45' and 8° South Latitude. The area is roughly 70 miles down by 65 miles across. (See Map 2). The latest population figures show 65,500 Anga people.

The Anga people basically belong to the mountains. They are usually short, wiry, virile and noted for their warlike tendencies. They are forceful in manner and speech.

Dress throughout the area is fairly uniform. Traditionally men wear a bushy reed sporran-like skirt, a small bark cape over the buttocks and in most tribes tied loosely around the neck with home made string. An additional bark cape is often suspended from the crown of the head. Cassowary bones are worn across the top of the sporran skirts. Stomach bands, chest bands and arm bands above the elbow are commonly worn. Women wear several bark capes and many necklaces, particularly when younger. All ages and both sexes have shaven heads except for a tuft at the crown.

The Anga practise shifting agriculture within a defined area. They raise pigs and dogs. In the past it seems that hunting played a greater role in food gathering techniques. Most Angan people make salt and this process has been perfected by the **Baruya** or **Batiya** (cf. Sinclair 1966). Irrigation is practised in some areas.

The Anga are animists who give special importance to the sun and moon. They are patrilineal and usually have patrilocal residence. They live in family houses and in most areas used to live in hamlets of about four houses. They practise sympathetic garden magic, and shamans who control healing spirits 'exorcise' sickness. Sorcery is practised to a lesser degree than in other highland areas. There are no chiefs as such, but in time of war they look to fight-leaders, in time of sickness to shamans in time of ceremonies to qualified men. The younger boys undergo a complex series of initiations before they marry and establish a family house of their own. The Commonwealth Film Unit of Australia has produced a series of anthropological films about the **Baruya** entitled 'Towards Baruya Manhood'. Smoking of the dead as reported by Simpson (1953) is quite widespread. Simpson's book is a popular account of the Anga. Dr Maurice Godelier of the University of Paris has done extensive anthropological field work among the **Baruya**.

In this paper all citation forms, except in the phonology, are usually written in a modified phonemic orthography. However in **Simbari**, **Kawacha**,

Kamasa, Ankave, Ivori and **Lohiki**, where only word lists are available, the words remain in a narrower transcription.

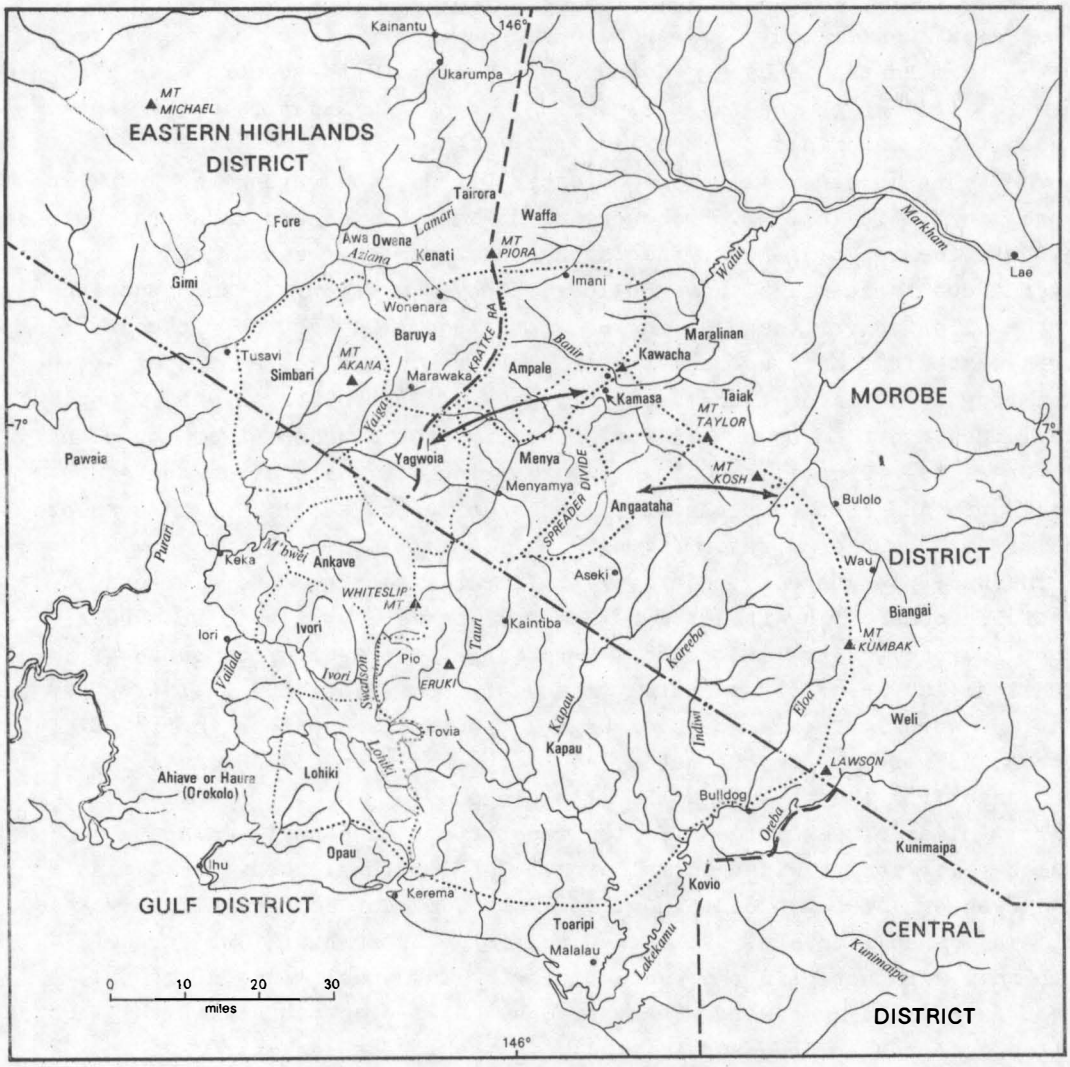
To maintain consistency various orthographies have been modified. The letter **s** represents [š] in **Kapau**, [tš] in **Menya, Yagwoia, Baruya, Ampale** and **Angaataha**, while **z** represents a fricative **y** in **Menya**, [ž] in **Baruya** and [s] and [z] in **Ampale**. The symbol **q** is used for a backed velar. The letters **f** and **v** represent voiceless and voiced bilabial fricatives. Glottal stop is represented by ' (apostrophe). The velar nasal is represented by **ng**, the mid low vowel by **aa**, and the neutral vowel [ə] by **+**.

2.2. Lexicostatistical Overview

Table of Cognate Percentages of Angan Languages

	Kap	Men	Yag	Bar	Sim	Amp	Kaw	Kam	Ank	Ivo	Loh	Ang
Kap		75	56	42	39	54	50	46	50	38	39	28
Men	69		58	40	36	54	45	48	43	32	32	24
Yag	47	50		44	37	51	43	39	36	33	31	24
Bar	41	38	42		67	49	38	31	33	28	27	23
Sim	35	33	34	60		44	37	30	32	26	24	23
Amp	49	47	46	45	38		54	44	40	32	33	22
Kaw	43	41	36	34	32	51		47	41	31	31	19
Kam	40	41	32	29	27	40	45		37	26	27	21
Ank	46	41	33	30	29	36	38	33		56	54	22
Ivo	35	32	28	25	24	29	28	24	54		75	22
Loh	38	32	27	26	25	30	29	24	50	68		21
Ang	29	24	21	23	21	22	21	20	20	19	21	

Upper figures are Swadesh 100 word list.
Lower figures are 170 S.I.L. word list.



MAP 2: THE ANGAN LANGUAGE FAMILY

2.3. Kapau

Kapau, the largest Angan language, covers about 2,000 square miles, and has a population of 32,190. Of these, 11,700 people have been censused in the Gulf District and another 150 people are estimated. Another 20,340 **Kapau** speakers are administered by the Morobe District. In the Gulf District **Kapua** is known as **Kamia**, a term of unknown origin. Some **Kapau** speakers have objected to the name of a river for themselves so the term **Hamtai** is being introduced. **Hamtai** is the centre near Kaintiba from which the **Kapau** expansion began. As **Kapau** is better known in published materials it is used here.

The **Kapau** border follows the Spreader Divide, then along the Kukukuku Ranges to Mt. Taylor, Mt. Kosh across the Watut River and along the Bulolo Watut Divide to Mt. Kumbak, then along the Kodama Range and down to the river about three miles above Bulldog, along the Tiveri to the junction of the Olipai River thence swinging west along 8°00' south. It goes north west after Karova Creek to the jetty at the top of Matupe River, then roughly north past the **Kapau** villages of Mamuro, Yawangeni, Paingoba and Tamdekengo then down the Ivori River, up the Swanson River and along Wia Creek near Pio village and along the ridge to White Slip Mountain then north and east to include villages Kwaiyu and Kwoi'imnga to complete the circuit at the Spreader Divide.

The **Kapau** language is relatively uniform, with regard to dialects, specially considering its extent. Word lists were available from **Upper Watut (Morobe)**, **Hepe** (mid south), **Hauwabanga** (the **Hawi** group north of Kaintiba; 100 words), **Kotombaiwa** (mid west from Kaintiba), **Wagi** (further west; 50 words), **Famba** (north of **Wagi**; 50 words) and **Mamuro** (north of Kerema; 50 words). Unfortunately no list other then old AR lists, were available from the south west Pmasa'a group.

Tom Palmer of New Tribes Mission reports that the Hawi replace a backed velar stop q with glottal stop. The list collected from Lamaani of Hauwabanga does not contain glottal stop, except before initial vowels. This may be an idiolect. No backed velars occur in **Hawi**, but further west they were noted in the **Wenta** dialect. The vowel i was noticeably lower in **Hawi** in some words such as *nose*. **Hawi** also had a k in the last syllable of **auka** *cloud*, and initially in the word **kaaoa** *fat*.

Most lists had **hingo wiqa** *neck* but **Kotombaiwa** had **hi'o** (note glottal) and **Morobe heqo**. **Morobe** was **na'a** *big* but all others were **haava**. **Hauwabanga** and **Wagi** had **yota** *smoke* but the others were **tivaaka**. **Hepe**, **Kotombaiwa**, **Famba** and **Mamuro** had **sunka** or **suqa** *foot* and the others **yanga**. **Morobe** h normally remained h in the other dialects but **Morobe hewa** *skin*

was fewa in all the others.

The Pmasa'a group are reported to replace Morobe glottal stop with backed velar q, as the Menya language does. The AR list from Madinava village lists *water* as eqa, (Morobe is e'a) and *dog* as hiveqa (Morobe is hive'a). The AR list has two forms for several words which alternate g and ng, as in aga and anga *house* (compare Ivori and Lohiki). *Skin* is listed as heva, initial h as in the Morobe dialect. The v in this word may represent w, but *woman* also has v, as it does in other dialects. The AR list for Ashavi village is very much like the Morobe dialect, but has hiuga *foot*, which may have changed to suga, as in some dialects.

2.31. Phonology

The analysis of Kapau phonology follows that of Healey (1958).

The 12 consonant phonemes are p, t, k, q, ' (glottal), m, n, ng, v, y, w, h. The seven vowel phonemes are i, ɨ, u, e, a, o and aa. The Kapau Pedagogical Grammar (Oates 1968) uses a practical orthography in which ɨ is unmarked and glottal following stops is also unmarked. The phonemic combinations vh and yh are written f and s.

Word initially or preceding glottal the voiceless unaspirated stops remain voiceless, but become voiced between vowels or following nasals. Aspirated stops have been interpreted as two phonemes, stop plus h.

The nasals have voiceless counterparts when followed by h. Before velars there is no contrast between n and ng. The phoneme ng only occurs word medially.

The bilabial v only occurs word medially. Unlike the stops combinations of v and glottal do not produce a voiceless counterpart. However the sequence vh is phonetically f (voiceless bilabial fricative).

The phoneme y is often a fricative (z) as in azure, when occurring word initially. The sequence yh is phonetically [š], as in *ship*.

The sequence wh is phonetically [W] (voiceless).

Syllabic nasals are common. All the nasals in the word mtmtma *picking and dropping nuts* are considered by Tom Palmer to be syllabic.

The vowel i becomes [ɩ] before nasals.

The close vowel e has an open variety, as in deck, occurring before q. The sequence eaa is pnonetically [æ].

The low vowel aa is usually slightly longer than a.

The central vowel ɨ is not common. All vowels occur word initially, medially and all but ɨ are word final. Clusters of two vowels are iu; ui, uo, ua; ei, ea, eaa; ai, au; oi, ou, oe, oa, oaa; and aai, aau. Clusters of three vowels are uai, uea; oea, oeaa, oaai, oaau.

Except for ' (glottal), ng and v all consonants occur word initially. All consonants occur word medially. Only m and n occur word finally. These two also occur syllable finally, word medially, but here glottal also occurs, preceding y and w. Glottal also precedes nasals but these are syllabic and perhaps ɨm, ɨn etc. Tom Palmer interprets v'v and n'n as 'v and 'n, which this author has written as v' and n'. Glottal has also been observed following stops. As ɨ has not been written in the extensive materials it is hard to sort out the evidence here, but other syllable final consonants may also occur.

Word initially all consonants but glottal, h, ng and v occur preceding h. Word medially, but syllable initially all but glottal and h occur preceding h. Until consonant-glottal-consonant and stop-glottal sequences are resolved distribution of phonemes cannot be concluded.

Phonemic stress occurs, but has not been completely analysed.

2.32. Grammar

The Kapau Pedagogical Grammar (Oates 1968) is a good survey of Kapau grammar and is the major published work on any Angan language. The brief outline here is based on their research plus discussions with Mr Tom Palmer. Any departures are intentional and this author's responsibility. References to Oates (given in parenthesis) allow a comparison.

Equational Clauses in Kapau consist of Subject and Predicate functions. Occurring in Subject function are Modified Noun Phrases (section 1.) with many variants, including only an adjective or demonstrative as its manifestation, or Possessor Noun Phrases (2.1.), or Appositional Noun Phrases (12.5.1.) or Co-ordinate Noun Phrases (14.1.) or Pronouns (section 1.) or Included Clauses as discussed in section 19. Also in Subject function are location words and, rarely, time words. Occurring in Predicate function are verb particles with the following moods ti (indicative) (1.1.), maa (contradictive) (11.3.), taa (interrogative) (10.1.), pi'ya etc. + ti what + is (question) (10.5.1,2,3.) and manga + ti perhaps + is, (dubitative). yaaqoe'a manga ti pig perhaps is *It might be a pig.* Instead of a negative equational mood, a negative stative of the verb he *be* occurs. The question mood here may prove to be a variant of indicative with the question word occurring within the noun phrase in Subject function. The dubitative may work similarly.

The elements occurring in noun phrases are nouns (1.2.) including attributive nouns (1.2.2.) ime'aa aapaka child (female) *a girl* and yaaqoe'a aanga (pig) house *a pig house,* adjectives (1.3.), demonstratives (1.3.4.), possessor words of phrases (section 2.) The status of numerals

(14.6.) is not clear. By changing position of items in the phrase different emphases are given (section 1. especially the note in 1.3.4. and 2.1.) Clitics also occur with noun phrases; they occur following the final item of the phrase (section 12). The personalizing clitics in their basic or Subject form are given in masculine and feminine (12.5.)

Masculine personalizing clitics

	first person	second person	third person
singular	-on	-oi	-qo
dual	-qoaal	-qoaangul	-qoaa'u
plural	-onai	-ohen	-'oaa

Feminine personalizing clitics

singular	-n	-i	-i
dual	-saai	-saangul	-saa'u
plural	-iyonal	-iyohen	-iy'oaa

Other clitics are -'i (indirect object marker) (20.3.2.), -'ma (concerning a thing), -'na (concerning a person), -nga (emphatic), -ma (only a thing), -na (only a person) and locative clitics. Locative clitics are -u *on, at, at the time;* -'i *at, on, in sight;* -m *in, out of sight;* and following other morphemes -'na *to,* -ntaa *from.* The possessor clitic is -'iya. The clitic -'i *at, on* may be the indirect object marker functioning as a locative marker. Multiple clitics may occur (12.6.). Besides the bound clitics function words are discussed in 14.1. accompaniment, co-ordination, alternation, and 14.4. which seems to be a kind of locative. Instrument function is not discussed, but may be included with fa, ha (with a thing) (14.1.).

Subject Personal Pronouns are

	first person	second person	third person
singular	ni	nti	qal
dual	yaai	qi	qi
plural	nai	hal	qui

The common forms occurring in 1.4. for third person are demonstrative pronouns, aqo *he* consists of a *that* and -qo (masculine third person singular subject). This is true also of Group Pronouns (1.4.4.). Prossessor Pronouns (2.1.1.) consist of Personal Pronouns plus possessor

allomorphs -qa, -'a, -'aa, -'ya.

Non equational clauses are not discussed as such by Oates though their Simple Sentences are manifested by single clauses. The various verbs that manifest Predicate function though have been discussed in detail. Other optional functions that occur with the Predicate are Subject ni *I*, Location tiya *here*, Time aankina *yesterday* and Manner quyv'a *badly*. As certain stems in the Predicate occur with other optional functions such as Object, Indirect Object, Instrument, and other stems never do, different clauses are established. Thus there are Intransitive clauses with p *come*, pmaa *live*, Transitive clauses with 'an *see*, 'i *hit*, n *eat*, and Ditransitive with taap *give*. See object person prefixes for structural reasons also.

Kapau verb stems are simple (single morpheme) or complex (usually two morphemes, but sometimes three) (3.1.1.a). Some stems are always active (express the action of doing) and some stems are always stative (express the state of being) while others appear to be either. Compare maa *get* (active) and maa *have* (Stative), hai or he *put* (active) and hai or he *be* or *become* (Stative) (3.1.1.b). It may be that the word is stative rather than the stem. Verb stems of primary rank are i *do* and its stative counterpart hai or he *be* or *become* because of their wide useage. Other verbs are of secondary rank (3.1.1.c). Note that i *do* also occurs in a stative verb.

Independent verbs (Primary 3.2.) nearly always occur sentence finally and express mood, tense aspect, subject and object persons.

Object person prefixes obligatorily occur with Ditransitive verb stems such as taap *give*. They optionally occur with transitive stems and never occur with intransitive stems. The object person prefixes (7.2.) are

	first person	second person	third person
singular	n-	qaa-	u- , w-
dual	eaa-	qaa'-	u- , w-
plural	naa-	he-	u- , w-

The semantic Noun-Verb expressions of section 5 are a feature of Kapau grammar, aapa qi'ya dance I-do *I dance*. The Kapau Dictionary (no date) lists 116 items which occur with i *do*.

In the following discussion of the Kapau verb the term stem will cover verb roots and any affixes peculiar to that root, such as object person prefixes. Voice categories follow the stem and need more analysis (16.6.). These will not be included in the verb discussion here. Voice suffixes

are -n (reflexive), -ati (repetitive), -hai (completive). The reflexive suffix also occurs with the other voice suffixes.

Various ways of expressing mood divide Independent verbs into three groups.

The Present Tense verbs form one group of Present Active (3.4.2.) Present Complete (3.4.3.1.), Present Durative (3.4.3.5.) and Present Stative (3.4.3.3.). For indicative mood these non-ti tenses all occur with qa- perhaps meaning (indicative), the stem, the appropriate tense aspect suffix and (n) series subject person suffixes. Tense-aspect suffixes are -' (glottal stop) (present active), -mang (present complete), -atong (present durative) and -ng (present stative). Subject person suffixes are listed in Appendix B. When the indicative verb is preceded by a question word (10.5.1.) question mood occurs. Interrogative mood consists of interrogative prefix ta- occurring instead of qa- (10.3.). Contradictive mood similarly occurs with maa- instead of qa- (11.5.). Negative mood is formed by a negative auxiliary verb (11.1.1.) preceding an indicative verb *do* in the appropriate tense aspect. The negative auxiliary consists of maa- prefix, stem and -'a which could be the descriptivizer morpheme (16.2.). m- oeaapa -a not -come down -(descriptivizer) plus qi'i he is doing means *He is not coming down.* Negative interrogative is the preceding construction with ta- replacing qa-, moeaapa ti'i *Is he not coming down?*

The other non-ti tense, Immediate Future (3.4.1.), is the only member of a second group. Indicative mood consists of an optional na- prefix perhaps meaning immediacy, stem, subject person (m) l series suffixes and immediate future tense suffix -na. Interrogative mood consists of the indicative verb followed by an interrogative form of the verb *do* in Present Active (10.4.) n-oeaap-m-na t-i-'-a (immediacy) -come down-I-(immediate future) (interrogative) -do-(present active)-I *Shall I come down soon?* The first word alone means *I will come down.* Question mood consists of preposing the interrogative form with a question word (10.5.). Negative mood consists of the negative auxiliary verb preceding the indicative form of the verb *do* (11.1.1,2.). moeaapa i-m-na not coming down do-I-(immediate future) *I will not come down.* The negative interrogative consists of the negative auxiliary preceding the interrogative (11.1.6.). Evidently no contradictive mood occurs.

The ti tenses are the simplest mood group. The basic verbs, described below, are followed by ti for indicative (section 4), taa for interrogative (10.2.), maa for contradictive (11.4.), preceded by question word and followed by ti for question mood (10.6.), the negative auxiliary

preceding a basic form of the verb *do* and followed by ti for negative mood (11.1.4.). Negative interrogative mood consists of the negative auxiliary preceding the basic form of *do* plus the interrogative particle taa (11.1.6.). Future tense verbs are very close to the structure of Immediate Future verbs. The future tense suffix -ta occurs in place of -na immediate future suffix (4.2.1.).

Immediate Past consists of the obligatory prefix na-, stem, -at (durative), (m) 1 series subject person suffixes and -nga alternating with -aa'aa (immediate past) (4.2.2.).

The remaining ti tenses all have the structure qa- (indicative), stem, tense-aspect suffixes and subject person suffixes. The distinctive suffixes with each tense are

-' (regular past) and (a) 2 series subject suffixes (4.3.1.)
-ang (distant past and (a) 3 series subject suffixes (4.3.2.)
-mang (habituative and (a) 3 series subject suffixes (4.3.2.)
-aa'n/-aang (past habituative) and (a) 1 series suffixes (4.3.3.).

The Past Habituative Durative occurs with -at (durative) preceding the past habituative morpheme (4.3.3.).

Imperative mood only occurs with second person. It consists of imperative mood prefix ha-, stem, and subject person suffix -i for dual and plural, singular is unmarked (section 8.). Future Imperatives are vastly different from Imperatives and show some features of subjunctive forms. Tom Palmer reports (personal communication) that they are formed by adding a morpheme -' (obligative) after the stem in Immediate Future verbs.

Obvitative mood in group one tenses consists in replacing (n) series suffixes with (a) 3 series for all but Present Active which occurs with (a) 2 series (13.1.). The conjugations in section 20.1.1. and 2. are the same as obvitative mood. With Immediate Future there is no contrast between indicative and obvitative (13.2.). The ti tense verbs occur with heaanqa instead of ti to form the obvitative (13.3.). The verb heaanqa is present stative of verb he *be* in third person singular of (a) 3 series suffixes.

In Section 6. 'intention' and 'purpose' are discussed. These appear to be in the general category of mood. For 'intention' an Immediate Future verb is followed by the verb *do* in Present Active to give 'present intention', and followed by *do* in Immediate Past to give 'past intention' and followed by Present Stative of *be* to give 'definite intention' (6.1.). For 'purpose' an Immediate Future verb is followed by any tense of a motion verb, or the verb t *speak*, or a verb with a stative stem (6.2.).

Subjunctive mood in group one tenses consists of stem, tense-aspect suffixes, (mao) series subject suffixes and suffix -nhe (subjunctive) (15.2.). Immediate Future Subjunctive appears to consist of an indicative verb followed by Present Active Subjunctive of the verb *do*. weaapmna y'mnhe, I will come down plus I would do, means *I would be going to come down* (15.2.2.). The ti tense verbs have the following changes from indicative verbs. Instead of ti they occur with hengohne Present Stative of *be*, third person singular subject in subjunctive mood. Regular Past Subjunctive consists of a Future form with qa- prefix, also called Future Perfect. Future and Immediate Past remain the same and the other ti tense verbs occur with (mao) series suffixes, followed by -ta future suffix (15.3.).

Avolitional mood consists of the avolitional particle iwa preceding an Immediate Future verb compounded with a Present Active verb *do* without qa- prefix ta iwa qaa-n-a-na-i-'-i fire lest you-eat-it-(immediate future) -do-(present active)-it *It is not good that the fire burn (eat) you.*

The Dubitative (21.3.) appears to be an auxiliary form. Dubitative mood (section 22.) is unsatisfactory, especially the false restriction to future time. There are Dubitative forms in Present Active (21.3.) qi'imti *I might do*, Present Complete qimangmti *I might have done*, Present Durative qiyatongmti *I might be doing*, and Present Stative (Appendix A. 3.4.) qiyangmti *I might be in state of doing.* Immediate Future Dubitative consists of Immediate Future indicative verb followed by a Present Active Dubitative verb *do* (22.1.). These are all dependent forms, or inter-dependent, and perhaps are a kind of conditional verb.

Late information reveals that Dubitative mood with independent verbs consists of the dubitative particle manga *perhaps* preceding indicative verbs. amaa'aa hango manga qapmeaa man a (certain) perhaps he stays (stative) *Perhaps a certain man is there. A certain man might be staying.*

Secondary verbs (section 20.) in Kapau appear to be Included verbs. Type 1. Secondary verbs occur in noun clauses, which with clitics, where necessary, may function as Subject (20.3.1.), Object (20.3.2.), Indirect Object (20.3.2.) and Location (20.3.3.). In Section 20.4. a retranslation of the last example will show the possible included sense.

aankina namaa qapa anuwa aata namaa qu'wa
yesterday getting I come (included) now again getting I go (active)

That which I brought yesterday, now I am taking away again. Group one secondary verbs have the same form as the obvitative verbs (Present Active, Complete, Durative, Stative 20.1.). There are no Immediate Future

secondary verbs. The ti tense verbs are the same as indicative verbs without the particle ti (20.1.2.). The following forms also are the same as the obvitative mood less heaanqa. Future secondary verb weaapmqa *I who will come down.* Immediate Past secondary noeaapatmnga *I, who came down.*

The status of Secondary verbs type 2 is not as clear as type 1. The description and examples given in Oates' Section 21. suggest that these are a kind of tertiary verb, see below.

Tertiary verbs (dependent, but not included) followed by another clause which has the same subject, distinguish four kinds of action. Successive Action has two varieties, (a), occurring with a motion primary verb it has no person distinctions, na- (tertiary), stem and -'ma *after* (17.3.1.); and (b), occurring with non-motion primary verbs, except Stative, na- (tertiary), stem and (m) 2 series subject suffixes (17.3.3.). n-oeaap-m (tertiary)-come down-I *After I come down I ....* Simultaneous Action also has (a) occurring with motion primary verbs, na- (tertiary), stem and -'a *while* (17.4.1.), and (b) occurring with non motion primary verbs where either tertiary or primary verbs are stative. This form is exactly the same as Successive Action (b). Processive Action, a kind of simultaneous action consists of na- (tertiary), stem, -at (processive or durative) and (m) 2 series subject suffixes. pane'a na-t-at-aa qapmeaango talk (tertiary)-speak-(processive)-we we are sitting *We are sitting talking.* All of these three kinds of action assume the tense-aspect of the primary verb. The fourth kind Continuous Action Having Terminated (17.6.) distinguishes future and non-future tenses in either active or stative aspects. Active aspect occurs with morpheme -'i (active) following the stem and stative aspect with morpheme -ang (stative). Future tenses occur with -tiyaa (future) and (mao) series subject suffixes and non-future tenses occur with -'naa (non-future) and (n) series subject suffixes. The general structure of these verbs is na- (tertiary), stem, aspect suffixes, subject-person suffixes and tense suffixes.

First person singular forms are

	Future	Non-future
Active	n-i-'i-m-tiyaa	n-i-'y-a-'aa
Stative	n-iy-ang-m-tiyaa	n-iy-ang-a-'naa

Repetitive Consecutive Action (17.7.) is more appropriate as a verb phrase, perhaps Repetitive Aspect.

Different Subject Tertiary verbs (Section 18.) distinguish three aspects, active, stative and durative. They distinguish basically future

and non-future, though non-future conditional forms do not appear to pattern regularly (called Present Tense by Oates).

Future forms have the structure optional na- (immediacy), stem, aspect suffixes, tense suffix, mao subject person suffixes and dependent suffixes. Aspect suffixes are -aa' (active), -at (stative) and -ato (durative). The future suffix is -aang, and dependent suffixes are -ta *after* (general), -tnaa *when* (time) and -ti *if* (conditional). The time dependent morpheme also occurs with -inaa *when*. The first person singular Different Subject Successive forms are:

Active	y-aa'-aang-m-ta	*after I do*
Stative	y-at-aang-m-ta	*after I am doing*
Durative	y-ato-aang-m-ta	*after I continually do*

Present forms consist of an optional na- (immediacy), stem, present aspect suffixes, (mao) subject person suffixes and conditional-successive suffix. Present aspect suffixes are -' (active), -ang (stative) and -atong (durative). Resemblances to primary present tenses are obvious. The three tertiary present forms in first person singular are:

Active	y-'-m-ti	*if I do*
Stative	y-ang-m-ti	*if I am doing*
Durative	y-atong-m-ti	*if I continually do*

The Past forms fill in the non-future chart, (18.1.2.), i.e. Successive and Time-successive. They consist of an optional na- immediacy prefix, stem, aspect suffixes as for future, past dependency suffixes and (n) 2 series suffixes with Successive and (a) 1 series with Time-successive. Past dependency suffixes are -aan (past successive) and -aa'n (past time-successive).

First person singular forms are

Successive

Active	y-aa'-aan-a	*after I did*
Stative	y-at-aan-a	*after I was doing*
Durative	y-ato-aan-a	*after I continually did*

Time Successive

Active	y-aa'-aa'n-a	*when I did*
Stative	y-at-aa'n-a	*when I was doing*
Durative	y-ato-aa'n-a	*when I continually did*

In summar the author must re-iterate Oates' and say that more work needs to be done. In particular after more work on morphophonemics the analysis will be clearer.

2.4. Menya

The second largest number of people in the Angan Family speak the **Menya** language, 12,300 speakers. They live in many of the valleys of the Tauri River and its tributaries surrounding the Sub-district Centre of Menyamya. One group has crossed the Spreader Divide and settled at Akwangi on a tributary of the Langimar River. When the Administration came the **Menya** were expanding and probably would have won more ground.

Mr and Mrs Len Chipping of the Summer Institute of Linguistics are just beginning field work in the language. The information here is gleaned from the Lutheran Mission Menyamya (apparently the work of M.V. Jordan). It is unfortunate that other notes from Rev. Jordan are not available, as he has done extensive work.

Little is known of the dialect situation. Jordan recognised three dialects corresponding to the major 'clans', **Nkwatiqa**, mainly East of Menyamya, **Tipatiqa** probably west and north-west as the name agrees with a **Baruya** name for this area and **Tineiviqa** probably in the south.

2.41. Phonology

This presentation begins with M.V. Jordan (1958, unpublished), but is modified by later word lists which show extensive changes. The 13 consonants are p, t, k, q, m, n, ng, v, z, s, h, w, y. The seven vowels are i, ɨ, u, e, a, o and aa.

The stops are voiceless word initially, but tend to be voiced following nasals. The backed velar stop tends to become a voiced velar fricative between vowels. Jordan says the stops can be produced with either egressive pharynx or lung air. A complex of voiceless velar stop releasing to schwa (ɨ) and returning to a glottal stop is an interesting sub-member of q. Glottal stop is not phonemic in **Menya**.

The nasals are voiceless when contiguous to h.

The phoneme v is bilabial with inverted lower lip.

The phoneme z has a fricative y allophone which fluctuates word initially with non fricative y, except before u when a voiceless grooved alveopalatal fricative [š] occurs. Word medially y and fricative y contrast.

The phoneme h almost always occurs word initially. It is always voiceless, but takes the quality of a following v, w, or a nasal.

The phoneme w when followed by y fluctuates freely with a medial voiced or initial voiceless bilabial fricative. The most recent analysis of w is unknown.

Syllabic nasals and syllabic v occur both word initially and medially. They have been interpreted as schwa plus nasal or v.

The vowel i is in free fluctuation with [ɪ] especially when unstressed or before nasals. The vowel ɨ has a higher sub-member in free fluctuation between stops. The vowel u fluctuates freely with an open variant. The vowel e tends to be long, and fluctuates with a low variant. The vowel a occurs in free fluctuation with a low back rounded vocoid between w and nasals.

All vowels occur word medially and finally. The vowel ɨ does not occur word initially, except as interpreted before syllabics. Except for ɨ all vowels occur in clusters preceding i. Only the following clusters occur with u, uu, eu, au, ou and aau. Other clusters are ea, eo, eaa, ae, oe, oa.

All consonants, though h rarely, occur medially. The status of v is in doubt, but it appears that all consonants except v and ng occur word initially. Only m and n occur word finally. Combinations where h is initial or w is the second consonant occur word initially, although no instances of nw have been recorded. The combinations written h consonant could be re-interpreted as consonant h. Medially many combinations occur. Syllable finally only m, n, ng and v occur, these may be followed by any consonant or consonant plus w.

There appear to be three phonetic levels of pitch and two phonemic levels.

2.42. Grammar

This author suggests that the -i clitic (called a Particularizing Clitic by Jordan) is a bound indicative equative morpheme and equivalent to Kapau ti. Jordan identifies -i as *it is* (Grammar Notes, unpublished). Menya Equational Clauses would then consist of a Subject and Predicate function. Occurring in Subject function are modified noun phrases, appositional noun phrases and pronouns. Presumably other phrases also occur. The only equative verb form given in bound -i (indicative). This and other mood clitics or words occur in Predicate function in Equational Clauses. It appears that -nsi is the indicative variant that occurs with pronouns. nyi-nsi I-be *It is I.*

The Subject Personal Pronouns are

	first person	second person	third person
singular	nyi	si	ki
dual	ye	qai	qai (?)
plural	ne	he	qui

Possessor Pronouns are

	first person	second person	third person
singular	nqɨ	tɨqa	kiqa
dual	yeqɨ	qayɨqa	qayɨqa (?)
plural	neqɨ	heqɨ	quwɨqa

The pronouns marked (?) are suggested forms from other sets, or languages.

As in Kapau some nouns may be attributive to other nouns. Jordan recognises two kinds, where the second noun modified the first and vice versa. zɨ kaawoka tree species name *a Kawoka tree.* Note also zɨ kaawoka yangɨ tree kawoka trunk *a trunk of a Kawoka tree.* The other kind is exemplified by yaqweqɨ aanga pig house *a pig house.*

A collective Noun phrase has two nouns which occur together to indicate a category of items similar to but beyond the items themselves. zi yuqwaakɨ arrow bow, probably meaning *weapons.* It is not a co-ordinate idea *arrows and bows.* Adjectives can modify all of these noun phrases or single nouns. Demonstratives usually occur following any adjective. Demonstrative roots are ta *this* and i *that.* amaaqa naqa ankwunanqi ta man big good this *this good big man.* Another demonstrative root is fɨ *some one, another* (indefinite). A possessor phrase consists of an initial Possessor function with various possessive pronouns followed by a Possessed function with noun phrases.

Personalizing Clitics are

Masculine

-wu-n-si	-wu-k-i	-w-e
-wu-ye-yi	-wu-qwaanqw-i	-wu-qwaaqw-i
-wu-ne-yi	-w-en-si	-w-aa-i

Feminine

-i-n-si	-i-k-i	-i
-ava-ye-yi	-av-aanqw-i	-av-aaqw-i
-ava-ne-yi	-av-en-si	-av-aa-i

The suggested morphemes in the above are -wu or w masculine, -i singular and -ava non-singular feminine, -yi or -si or -i indicative equative clitic and the remainder of the complex are person-number morphemes.

Relationship nouns (referential) consist of a possessive prefix, tɨ- *your* is the only one given, the stem and finally appropriate clitics; tɨ-ni-qwo your-father-he *your father.* Third person singular morphemes are -qwo or -o (masculine) and -ai or -i (feminine). Compare with the personalizing clitics.

Jordan reports that the verb stem is either active or stative depending on the affixes that occur with it. Some stems do not occur with stative affixes and perhaps also some stems do not occur with active affixes.

The only mood given is Indicative which is marked by prefix a- preceding a consonant or is unmarked before a vowel. However, Jordan also mentions Indicative mood suffixes. Jordan does not give the indirect object prefixes but it should be safe to assume they immediately precede the root.

Near future verbs consist of indicative prefix a-, stem, near future subject suffixes and near future tense suffix -ɨn. It covers time up to twelve hours ahead. a-t-ɨm (indicative)-speak-I (near future) *I will talk soon.* This basic form is also Factual or Punctiliar aspect.

Future verbs cover time beyond twelve hours ahead and consist of a- prefix, stem, near future subject suffixes, near future suffix -ɨn, the verb stem i *do*, and near past subject suffixes (Compare Kapau Intention verbs).

a-t-ɨm-ɨn-i-qe (indicative)-speak-I-(near future)-do-I(near past) *I will speak.* The indicative prefix a- is optional with the future tenses.

Present verbs, factual aspect, consist of prefix a-, stem, active suffix -ɨq, and present subject suffixes a-t-ɨq-a (indicative)-speak-(active)-I *I speak.* Second person singular is irregular a-t-ɨn (indicative)-speak-you (present) *you speak.*

Near Past verbs, factual aspect, refer to time as far back as yesterday morning and consist of a- indicative prefix, stem, active suffix -ɨq and near past subject suffixes a-t-ɨq-aqe (indicative)-speak-(active)-I(near past) *I spoke.* Second person singular does not occur with morpheme -ɨq. The final vowel in this tense could be the (equative) indicative clitic -e or -i.

Past verbs, factual aspect, cover any time before yesterday and are used for narrative past. They consist of indicative prefix a- stem, past suffix -ik, active suffix -ɨq, and near past subject suffixes. a-t-ik-ɨq-age (indicative)-speak-(past)-(active)-I *I spoke.*

Remote Past tense emphasises the remoteness of an action. In factual aspect these verbs consist of a- prefix, stem, -aang (remote past) and near past subject suffixes. Following ng the vowels ɨ, a and o are lost. Active aspect is unmarked with this tense unless -ng should prove to be a variant of it. a-t-aan-qe (indicative)-speak-(remote past)-I *I spoke long ago.*

Present Repetitive describes the duration or repetition of an action. Jordan describes Repetitive as a 'state of doing', while stative is a

'state of being'. This verb consists of a- prefix, stem, -at (durative), -ɨq (active), -ang (repetitive) and present subject suffixes where -va *he* replaces -i *he*.

a-t-at-ɨq-ang-a (indicative)-speak-(durative)-(active)-(repetitive)-I *I am speaking.* a-t-at-ɨq-a-va (indicative)-speak-(durative)-(active)-(repetitive)-he *He is speaking.* (Note that the present author has reversed meanings of -at and -ang.)

Near Future Repetitive consists of a- prefix, stem, repetitive suffix -ɨqa, near future subject suffixes and near future tense suffix -ɨn. The subject suffixes with vowels other than ɨ occur with -ɨqw (repetitive).

a-t-ɨqa-m (indicative)-speak-(repetitive)-I(near future) *I will keep on talking.* a-t-ɨqw-a-n (indicative)-speak-(repetitive)-he-(near future) *He will keep on talking.*

Future Repetitive parallels the Future Factual but occurs with -ɨqa or -ɨqw (repetitive). a-t-ɨqa-m-ɨn-i-qe (indicative)-speak-(repetitive)-I-(near future)-do-I (past) *I will keep on talking.*

These are the only verbs that Jordan illustrates, although he mentions other aspects. The Active aspect is well illustrated; the Repetitive is discussed for 2 or 3 verbs, where Jordan reports that in the past tenses Repetitive may correspond to Habituative (i.e. for recurrent actions). Stative aspect refers to a state of being. Jordan mentions other aspects, but these may be really voice categories. Reflexive voice may occur as Factual, Repetitive and Stative. Benefactive, in Factual or Repetitive forms occur with 'object prefixes' showing the person benefitted. Causative occurs as a suffix and Causative voice has Factual and Repetitive forms. Causative Stative has not yet been observed. Jordan calls one form Passive, describing it occurring with 'object prefixes' which refer to the person of the subject, rather than the object, and the subject suffixes are only third person singular. It occurs in Factual, Repetitive and Stative aspects and Reflexive voice. From this description, it is the form of English expressions such as 'I am hungry' which in Menya and other Angan languages is actually 'Hunger does to me', or similarly 'Pain pains me'. Completive is also a suffix which appears to occur in all tenses and with most aspects and voices.

Counting is a simple one, two, two plus one, two plus two, two plus two plus one, and 'two hands' for ten. One and two, by themselves consist of hɨ *some* plus gender and number morphemes. The phrases are based on the demonstrative root ta *this*. Menya 'a hand' may also be used for five.

2.5. Yagwoia

The 6,600 speakers of **Yagwoia** are administered from Menyamya, Morobe District. Some of them live west of the Kratke Range on a tributary of the Yaiga which flows into the Vailala River. The main population lives in the valley immediately west of Menyamya. Further south is another group over a divide and north of the main **Menya** area live another 1,180 people. Capell (1962) calls the northern group **Yeghuye**, evidently after Fischer (1968) who calls them **Jeghuje (=Yequya)**. The **Baruya** call them **Yovya** and this author recorded **Yaguya**. The name **Yagwoia** is apparently derived from the river (Yagwoi or Iakwoi) west of Menyamya, but is similar to **Yaguya**.

2.51. Phonology

The only paper available on Yagwoia phonology is by R. Weier and M. Grieger (1960, unpublished). The analysis has been revised since, but the latest findings were not available.

The phonemes consist of the 13 consonants, p, t, k, q, glottal stop, m, n, ng, l, s, w, y, h, and seven vowels i, ɨ, u, e, a, o, and aa.

The stops are voiceless fluctuating to voiceless aspirated word initially and fluctuating to voiced stops after nasals.

The velar nasal is rarer in this language than in other Angan languages.

A single phoneme h word initially fluctuates with hy. A voiceless velar fricative variant occurs word medially. Word initially before nasals it becomes a voiceless nasal.

The affricate phoneme s [tš] is voiceless word initially where it fluctuates with [ts], fluctuates with a voiced affricate following nasals, and fluctuates with [s] between vowels.

The phoneme w seems to be close phonetically to a bilabial v, preceding y, otherwise word initially and word medially after vowels or consonants it is rounded.

Syllabic nasals and laterals occur word initially and medially. They have been interpreted as schwa ɨ plus nasal or lateral.

The vowel i has a high variant word finally and between stops and vowels, and a low variant between stops, elsewhere the two variants fluctuate freely. Between stops so e speakers centralise the phoneme to [ɨ].

The vowel ɨ has a basic low variant after w and a high variant before double nasals and word finally after y, elsewhere they fluctuate freely.

The vowel a has a back rounded variant contiguous to w or a cluster containing w. There may also be a front variant (short [ɛ]) contiguous

to y; from final notes in the phoneme paper.

The vowel e which may be basically long could have a variant [æ]. The vowels ɨ and a do not occur word initially, except ɨ by interpretation. The vowels e and aa do not occur word finally. All the vowels occur elsewhere. Clusters of two vowels occur, the ones gleaned were ea, eaa, ai and au and perhaps aau, ei, iaa, ua. Vowel clusters appear to occur in all positions in the word.

Word medially all consonants occur. Word finally only glottal stop occurs. Word initially glottal stop is the only consonant that does not occur. Clusters of two consonants occur word initially and clusters of three medially. The examples gleaned were nkw, lkw and mny for three consonants. For consonant clusters of two the following were noted, glottal stop followed by m, n, l or w, consonant m followed by p, n, l or s, consonant n followed by k or s, the consonant l followed by t, k, m, n, s, w or y. Other combinations are h followed by m, n, w or y, the consonant p followed by l or y; the consonant k followed by m, l, w or y, and the consonant q followed by w. Initial clusters are kw, hw, qw, hy, hm, hn and perhaps others not occurring in the small sample of data.

2.52. Grammar

No grammatical details are available, but some verb stems appear to occur with qa- prefix see the words *sit, give, come* and *do* and the verb *die* appears to occur with na- (compare Kapau). The imperative prefix seems to be hu- in hutawa *cut it*. Third person singular for the present tense varies from -ana to -aatana and perhaps -lana.

The verb stem taq (or taqo) *stand* occurs in a partial paradigm:

taqo-na	stand-he	*he stands*
taqo-ngla	stand-they 2	*they two stand*
taqo-ngawa	stand-they	*they stand*

In past tense a phrase occurred, nɨ-w-yɨ i-sa-qa (prefix)-go-(descriptivizer) do-(past)-he *he went*. Future was nɨ-w-yɨ i-a-te-qa (prefix)-go-(descriptivizer) do-he-(future)-is *he will go*.

Counting parallels the Menya forms for *one* and *two*, which appear to be based on hɨ *some*. *Three* is two plus one with the same words. Four is two plus two and occurs with another root, probably demonstrative *this*. *Five* is *a hand* and *ten* appear to be *two hands*, using two words.

The Personal Pronouns are

	first person	second person	third person
singular	nka	sika	(heqwa)
dual	nankwali	qailqali	(heqwalaaqwu)
plural	nenkwa	helka	(heqwalo)

The third person forms are based on the demonstrative he *that* and are demonstrative pronouns. The other dual forms are probably the personal pronouns with gender or other morphemes.

2.6. Baruya

The **Baruya** live completely within the Eastern Highlands District on the ridges and in the valleys surrounding Wonenara and Marawaka, and in the Wugamwa Census Division. Within the **Baruya** language the largest group which calls itself **Baruya** is the result of intermarriage of **Yagwoia** refugees with the **Aanja** group. The **Baruya** group live south of Wonenara and around Marawaka. The same dialect is also spoken by the **Aanja** group and with some changes by the **Usirampia** group south of Marawaka; a total of 3,100 for this dialect. The **Wantakia, Dembulia** and **Wenavi** live in the Wugamwa Valley and are a diverse dialect of 1,340 speakers. Two smaller groups **Gulisa** and **Yuwarinaasa** live to the north of Wonenara and form another dialect linguistically midway between the **Baruya** and **Wantakia.** There are 333 speakers in this dialect. Total speakers of the language are 4,770.

2.61. Phonology

The following material is from J. Lloyd and A. Healey (1970).

The 14 consonants are p, t, k, ' (glottal stop), b, d, g, m, n, ng, r, l, w and y and the seven vowels are i, ɨ, u, e, a, o and aa.

The voiceless stops are voiceless and fortis word initially or medially following glottal stop and they are often fricative elsewhere. The t is a dental stop and k is usually a backed velar.

Glottal stop becomes an unreleased stop at the same point of articulation as a following consonant. It remains glottal word finally or before the semi-vowels y and w. The only instance of glottal occuring between vowels is in one man's name.

The voiced stops are always prenasalized. The d is dental and g is usually a backed velar.

The alveolar flap is [ɾ̆] before i or y and [ɾ̆] elsewhere.

The phoneme y is [š] following initial t or medial 't and is [ž] following d. Between vowels ty becomes [ž] and dy becomes [ndž] or [nž]. In this paper dy has been symbolized j, initial ty as s and medial ty as z. Medial p has been symbolized as v, 'p as p; medial k as q and 'k as k; medial t does not occur in the paper.

The phoneme n is interdental following i, elsewhere it is dental.

The vowel phonemes i and u are slightly long. Between two semi-vowels w, the vowel i is rounded and between two semi-vowels y, the vowel u is unrounded.

The most common vowels ɨ and a are short and have many allophones. The general environment and resulting variants are: ɨ is fronted to [ɪ] contiguous to y and backed to [u] contiguous to w; a is fronted to [ɛ] contiguous to y and backed to [ɔ] contiguous to w. For a proper treatment please see Lloyd and Healey 1970.

The inherently long vowels o and aa do not vary greatly. The long vowel e before velars is phonetically [ɛʌ]. The vowels ɨ and o do not occur word initially. All vowels, except u, occur word finally. All vowels occur word medially. The clusters are aai, ai, ei, oi, ui and following w the additional clusters iaa and ia. These are complex syllable nuclei, i being non-syllabic. Since the phoneme paper was written, one cluster of three vowels, following w has been found iai. Baruya speakers insist this is one syllable, only a being syllabic so that the word nɨgwiai *a coin, a cowrie shell* has only two syllables.

The consonants glottal stop, r and ng do not occur word initially. Glottal stop is the only consonant to occur word finally. All consonants occur word medially. All consonants occur word medially before y, all except glottal stop, r and ng occur word initially before y. Except for dental consonants t, d, n, r and l all consonants occur word initially and medially before w, except consonants which never occur word initially. Word medially glottal stop occurs before p, t, k, b, d, g and m, n singly or these consonants plus allowable semi-vowels. Word medially m and n occur before prenasalized homorganic stops and nasals, and ng occurs before g. Word medial glottal stop, m, n and ng before other consonants are syllable final.

Pitch accent, incorporating high pitch and stress, is phonemic, but only occurs on one of the last two syllables of the stem of a word. The long vowels e, o and aa occur with pitch glides. When accented the pitch glides down from high, when unaccented the low pitch glides lower. Perturbation is progressive.

The Wantakia dialect has no voiced stops b, d, g. Medially clusters

of mp, nt and ngk occur, paralleling Baruya mb, nd and ngg.

Computerized text gave a phoneme count of 20% of text for a, 12% for ɨ and 7% for n and y.

2.62. Grammar

Baruya Equational Clauses consist of a Subject and a Predicate function. If the Subject function is not manifested by locatives or temporals then a Location function and a Time function optionally occur. Occurring in Subject function are also Modified Phrases of several kinds, Possessive Phrases, Appositional Phrases, Co-ordinate Phrases, Pronouns and Included Clauses. For further information see Lloyd (1969). Occurring with the phrases, pronouns and included clauses are various clitics which are function markers (case) but except for pronouns also show gender, person and number sometimes in portmanteau form. This makes analysis difficult and resulted in the poor choice of name for Clitic slot in my earlier paper. The use of clitics with phrases is an economical step from a probable older stage case system. (See notes on the Angaataha grammar, §2.92, for a possible intermediate stage.) The Baruya case morphemes are Subject/Actor (basic clitic forms), Object/Indirect Object -yɨno, Accompaniment/Instrument -zɨno, Location in Space and Logic -ya -bano, Location in Space (direction) -ya-wɨno, Time -ya-gaako, Possession yɨ-re, Reference (-yɨ)-nano. Benefaction, (Lloyd 1969), has proved to be a nominalized form of the Reference.

The Subject forms of gender clitics for masculine and feminine are

Masculine

-i-nyo	-i-gɨno	-lo
-i-naalo	-raai-qɨlo	-raalo
-i-naawo	-iqɨlo/-raaviqɨlo	-raawo

Feminine

-'-nyo	-'-gɨno	-wo
-'-naalo	-waai-qɨlo	-waalo
-n-naawo	-ng-iqɨlo	-ngo

Occurring in Predicate function in Equational clauses are the following equative verbs. Indicative is a bound form (clitic) -yɨro, Negative is miko, Interrogative is daako, Question is an equative form of question words which end in -ko, Dubitative is dɨngako or dɨqako with some speakers. Negative Interrogative is midaako and Negative Dubitative is midɨngako. Question mood is illustrated by a'mwe be-wa-la-ko person what-(masculine)-

he-be *What man is that?* Interrogative mood is illustrated by a'mwe-i daako person-he (interrogative) *Is it a man?*

The Subject Personal Pronouns are

	first person	second person	third person
singular	nɨmɨno	gɨmɨno	gamɨno
dual	naarɨmɨno	kɨrɨmɨno	kɨrɨmɨno
plural	nemɨno	sarɨmɨno	kumɨno

Non-equational clauses are very similar to Kapau. A Nature clause occurs with a special class of verbs which only occur in third person singular, whatever the number of the special class of nouns in Subject function. yɨta-waai waay-ɨko tree-two (feminine) stand-he (stative) *Two trees are standing.*

Stems in Baruya are simple or complex. Complex stems occur frequently and may consist of four or five roots. There is a general division of verb roots into active and stative, but this is not rigid. Indirect Object prefixes occur with certain roots or roots plus y (benefactive). These are:

nyɨ-	gɨ-	wɨ-
neqɨ-	yɨqɨ-	wɨ-
ne-	yɨqɨ-	wɨ-

Voice suffixes follow verb roots and consist of -n (reflexive) -q (causative) and -y (benefactive). The last occurs in the form dɨ-nyɨ-ram-y-ɨ(imperative)-me-hit-(benefactive)-you. *Kill (the possum) for me!*

There are independent, dependent, subjunctive and included verbs. The independent verbs usually occur sentence finally. The Independent verbs show mood, tense and subject. Sometimes instead of tense aspect occurs. The formation of mood divides all the independent verbs into future and non-future. The non-future group will be discussed first.

The Complete Verb consists of stem, tense suffixes and complete subject person suffixes. The tense Suffix is -ɨw or -mw (complete) depending on the final consonant of the stem. The subject suffixes are listed in Appendix D.

y-ɨw-ano do-(complete)-I *I have finished work.*

The Incomplete verb consists of stem, tense suffix, and incomplete subject-person suffixes. The tense suffix is ɨvan-ɨg or -man-ɨg and follows the same rules as for the complete suffix.

y-ɨvan-ɨg-eno do-(incomplete)-(incomplete)-I *I am working.* The final part of the tense, which may be the stative morpheme, does not occur with

he. y-ɨvan-ɨko do-(incomplete)-he *He is working.*

The Stative verb usually occurs with stative roots like warɨ *lie* and mwaalɨ *stay or sit.* It consists of stem, tense suffix ɨg and incomplete subject person suffixes. y-ɨg-eno do-(stative)-I. *I am doing/I am in state of doing.* y-ɨko do-he *He is doing.*

Nocturnal Past verb is a true tense and refers to the previous late afternoon and night. It consists of stem, tense suffix -yawaaiq and incomplete subject-person suffixs.

y-awaaiq-eno do-(noctural)-I *I did it last night.*

y-awaal-ɨko do-(noctural)-he *He did it last night.*

Near Past verb covers the time from yesterday to two or three days ago. It occurs with the tense suffix -ɨwa'd or -mwa'd (near past) and the incomplete subject person suffixes except -aawo occurs instead of -awo *you all, they.* y-ɨwa'd-eno do-(near past)-I *I did it recently.* yɨwa'dɨko *He did it recently.*

Regular Past verb covers the time from three days to a month or more. It occurs with tense suffix -ag (past) and past subject-person suffixes. Some persons have an alternate form without -ag, but *he* never occurs with -ag (past) y-ag-eno do-(past)-I *I did it.* y-eno do-I(past) *I did it.* y-ako do-he(past) *He did it.*

Far Past verb refers to time earlier than the time of the regular past. It is not considered profitable to divide tense from subject suffixes so the structure is stem and far past-subject-person suffixes.

y-aano do-I(far past) *I did it long ago.*

A rarer tense may be called a Previous Tense verb. This occurs when an action is forgotten until the next action is spoken, and so the speaker uses this verb to refer to the time before the last action spoken. It consists of stem, previous tense suffix -yawalyaad and near past subject person suffixes.

y-awalyaad-eno do-(previous)-I *I had done it already.* This verb usually occurs as an included form.

The indicative mood for all the preceding verbs is as given, y-ɨw-ano do-(complete)-I *I have finished working.* The negative consists of initial prefix ma- and suffix -y preceding tense suffixes m-y-ɨw-ano (negative)-do-(complete)-I *I have not finished working.* ma-n-y-ɨw-ano (negative)-eat-(negative)-(complete)-I *I have not finished eating.* Question mood consists of a question word preceding the indicative form baarɨ yɨwano *What have I done?* The Interrogative occurs with prefix da- and the Dubitative with prefix daqa-. da-n-ɨw-ano (interrogative)-eat-(complete)-I *Have I finished eating?* daqa-n-ɨw-ano (dubitative)-eat-(complete)-I *I might have*

finished eating. Negative Interrogative consists of a compound verb with negative prefix ma-, verb stem, suffix -yɨ, interrogative affix d- plus the appropriate tense of the verb *do.*

ma-n-yɨ-d-y-ɨw-ako (negative)-eat-(negative)-(interrogative)-do-(complete)-he *Has he not finished eating?* The Negative Dubitative is the same except that jɨq- (dubitative) occurs instead of d- (interrogative). ma-n-yɨ-jɨq-y-ɨw-ako *He might have not finished eating.*

Future tenses are Desiderative Tense and Future Tense. The Desiderative means either *I want (desire) to do* or *I will soon do.* It consists of stem and desiderative subject person suffixes, see Appendix D. Note that the usual seven contrasts in subject have increased to eight here. The second person desiderative forms occur with dɨ- (imperative).

n-ɨmo eat-I(desiderative) *Let me eat, I want to eat.*

dɨ-na-no (imperative)-eat-you *You eat.*

The Future Tense consists of the Desiderative form plus the future suffix -de and a variant of the equative indicative clitic, -ro. Morphophonemics makes the connection hard to see.

n-ɨpɨ'-de-ro eat-they (desiderative)-(future)-be *They will eat.*

The negative consists of a negative auxiliary ma-stem-yɨ(na) preceding the positive forms of *do.*

ma-n-yɨ y-ɨma (negative)-eat-(negative) do-I(desiderative) *I do not want to eat.* manyɨ yɨpɨ'dero not eating they will do *They will not eat.* Interrogative consists of a desiderative verb, the interrogative morpheme d and the same subject form of the verb *do* in Complete Tense.

n-ɨpɨ'-j-ɨw-aawo eat-they (desiderative)-(question) do-complete-they. *Will they eat?* Question mood consists of a question word before a future interrogative form. baarɨ nɨpɨ'jɨwaawo *What will they eat?* Dubitative is much the same as the Interrogative, but with jɨq (dubitative) n-ɨpɨ'-jɨq-y-ɨw-aawo eat-they (desiderative)-(dubitative)-do-(complete)-they *They might eat.* The negative auxiliary occurs with Interrogative and Dubitative form of verb *do* to give Negative Interrogative and Negative Dubitative. ma-n-yɨ yɨpɨ'jɨwaawo not-eat-not will they do *Won't they eat?*

The Habitual Verb describes a customary action still being practised. A customary action no longer done uses the appropriate past tense. The Habitual Verb usually occurs in an Equational clause, but also occurs with a dependent sense in an Explanatory Discourse, describing house-building, etc. It consists of stem, duration suffix -ad and habitual subject person suffixes.

n-ad-ɨvɨko eat-(duration)-they(habitual) *They always eat (bananas).* The Habitual Verb occurs in positive and negative forms with question

words. ma-n-y-ad-ɨvɨko not-eat-not-(duration)-they *They do not usually eat (bananas).* baarɨ nadɨvɨko *What do they usually eat?* baarɨ manyad-ɨvɨko *What don't they eat?* The Habitual usually occurs with the substantive marker and clitics but may occur with only equative verbs. n-ad-ɨvɨk-ɨro eat-(duration)-they-be *They always eat.*

All Subjunctive verbs occur with the subjunctive subject person suffixes (see Appendix D.) The Positive Subjunctive almost always occurs as an Included clause. It consists of stem, subjunctive subject suffixes, concerning suffix -na and an optional indicative equative verb clitic. n-ɨpɨ-n-ero eat-they(subjunctive)-about-be *They should eat.* The Negative Subjunctive consists of negative prefix ma- occurring before the positive form. ma-n-ɨpɨ-n-ero not-eat-they(subjunctive)-about-be *They should not eat!* The Undesirable Subjunctive consists of na- (undesirable), stem, subjunctive subject suffixes and -dɨko *unreal* suffix. na-n-ɨpɨ-dɨko (undesirable)-eat-they-(unreal) *It is not good that they eat (that).* A negative auxiliary occurs also ma-n-yɨ nyɨpɨdɨko not-eat-not lest they do. *It is not good that they not eat.* The Complete Subjunctive occurs with ka- (complete) prefix instead of na- (undesirable). ka-n-ɨpɨ-dɨko (complete)-eat-they-(unreal) *They would have eaten.* A negative also occurs manyɨ kyɨpɨdɨko not eating, they would have done *They would not have eaten.*

The Subjunctive has a dependent form which may occur in positive or negative, as an included clause. Its normal use is in a verb phrase which functions as the Predicate of a Contrary to Fact Condition Clause. The Dependent Subjunctive consists of optional negative ma-, stem, subjunctive subject suffixes and the dependent marker -jɨ(no). n-ɨpɨ-jɨ eat-they (subjunctive)-(dependent) *They should eat.* The Conditional auxiliary is kwajɨ and it follows the Subjunctive Dependent nɨpɨjɨ kwajɨ they should eat, if (subjunctive) *If they had eaten.*

A Dependent Desiderative also occurs. It consists of stem, dependent desiderative subject person suffixes and the dependent marker -jɨ. n-ɨpɨ'-jɨ eat-they-(dependent) *As they want to eat (I am staying cooking).*

Regular Dependent verbs almost always occur with Independent verbs. They distinguish between future and non-future tenses, whether the relationship with a following clause is successive or simultaneous action and they usually indicate whether the subject of a following clause is the same or different.

There are three Successive Action verbs. Non-future Different Subject Successive verbs consist of ka- prefix (change of subject) preceding non-future Independent verbs. ka-n-ɨw-aawo (change of subject)-eat-(complete)-

they *They have eaten and...* ka-n-yaawo (change of subject)-eat-they(far past). *Long ago they ate and...*

Non-future Same Subject Successive verbs consist of stem, the shorter forms of the past tense suffix (i.e. unmarked or -ag), past tense subject suffixes, and the successive action same subject suffix -a(no). n-ev-a eat-they-(same subject successive), *They ate and they...*

The future Successive verb consists of optional change of subject prefix ka-, stem, successive future suffix -aw, dependent future subject suffixes and dependent morpheme -jɨ. ka-n-a-pɨ-jɨ (change of subject)-eat-(dependent future)-they-(dependent) *They will eat and...*

The Simultaneous Action verbs distinguish stative and active. They must have a different subject in the following clause, though they never occur with ka- prefix. Same subject simultaneous actions in English are often rendered in Baruya as compound stems, e.g. *talk-go.* The general structure of Simultaneous verbs is stem, duration suffix -ad, aspect suffixes -aaw(active) or -aw(stative), subject suffixes and dependent morpheme -jɨ. The non-future forms occur with simultaneous subject suffixes. The future forms occur with dependent future subject suffixes.

Non-Future Simultaneous Active

n-ad-aa-zɨ eat-(duration)-(active)I-(dependent) *While I ate...*
n-ad-aa-pɨ-jɨ eat-(duration)-(active)-they-(dependent) *While they ate...*

Non-future Simultaneous Stative

n-ad-a-zɨ eat-(duration)-(stative)I-(dependent) *While I was eating...*
n-ad-a-pɨ-jɨ eat-(duration)-(stative)-they-(dependent) *While they were eating...*

Future Simultaneous Active

n-ad-aa'-mu-jɨ eat-(duration)-(active)-I-(dependent) *While I will eat...*

Future Simultaneous Stative

na-ad-a'-mu-jɨ eat-(duration)-(stative)-I-(dependent) *While I will be eating...*

Negative forms of all Dependent verbs are common. With change of subject morpheme ka- the negative auxiliary occurs ma-n-yɨ k-y-ɨw-ano not-eat-not (change of subject)-do-(complete)-I *I have not eaten and...* With other dependent verbs the complex ma-stem-yɨ occurs ma-n-y-ad-aa'-mu-jɨ not-eat-not-(duration)-(active)-I-(dependent) *While I did not eat...* Question mood occasionally occurs and consists of a question word preceding the positive forms. baarɨ yadapɨjɨ *While he was doing what...*

The other moods have been elicited but are very rare. They parallel the non-future independent forms.

Included clauses and hence Included verbs are very common. The Desiderate verb never occurs as an Included verb. The substantive morpheme **-ya**, (Lloyd 1969) always occurs and precedes gender and other clitics. With appropriate clitics any clause may occur in any clause level function except Predicate.

2.7. Simbari

Simbari is closely related to **Baruya** which it joins on the West. The 2,400 **Simbari** live in the lower Yaiga Valley and various of its tributaries to the north. They also live on the eastern side of the Aure River. Near the Gulf District border the **Pawaia** village of Tusavi stands on old Simbari land. It is reported that there is a **Simbari** village about 15 miles upstream from another **Pawaia** village called Keka. This **Simbari** village could be Yatwia, which is 20 miles or so from Keka.

2.71. Phonology

No phonemic analysis of **Simbari** was available. So the comments here are necessarily tentative.

There appear to be 14 consonants **p, t, k,** glottal stop, **b, d, g, m, n, ng, r, l, w, y.** There are some syllabic nasals, but these only occur word medially. Some prenasalized stops, **b, d,** and **g,** are cognate with other Angan voiceless stops. The prenasalized stops then are likely to be phonemes, though the syllabic nasals, which do not occur in **Baruya,** make this decision tentative. There are seven vowels **i, ɨ, u, e, a, o** and **aa.**

The phonetic material is much like **Baruya,** but **l** in **Simbari** is usually a lateral fricative. **Simbari** also has a velar lateral which is analysed as the combination **ry** which is mutually exclusive. A backed velar stop occurs in **Simbari** between vowels **a** and **a** or **aa** and **aa** and initially in some words before **aa. Simbari** also has intervocalic glottal stop **bi'aay** *tomorrow*, **sa'ayɨ** *pig*. The occasional occurrence in **Baruya** of **pt** for normal Baruya **'t** is always **pt** in Simbari. Combinations of **l** and other consonants also occur in **Simbari,** noted were **pl, lk, ln, lm.** The combinations of **l** plus consonant in **Simbari** are **i** plus consonant in **Baruya.**

At this stage other features are assumed to be the same as **Baruya.**

The voiced and voiceless affricates [**ndž**] and [**tš**] are phonemically **dy** and **ty,** at this stage.

2.72. Grammar

Most verbs appear to be prefixed by a- (probably the indicative), and others by na-, with the same meaning. In the Present there are two endings for third person singular, and there are examples of one root da *speak* occurring with both. Perhaps one is Stative and the other is Continuous (or Complete and Continuous). These endings are -dɨpyɨ and -maayɨ. Third person suffixes with another stem are singular -pyɨ, dual -kula and plural -kupɨ. This suggests -dɨ is a morpheme and -pyɨ another.

Counting is the same as Baruya, with practically the same morphemes, for example: p-wa-l-na some-(masculine)-he-about *one*. p-wa-raal-na some-(masculine)-they two-about *two*. Normally the numerals are based on a demonstrative root so *four* is a-raal a-raal this-they two (men) this-they two (men). *Five* is *a hand, ten* is *two hands* with a count morpheme -utyaal *two hands*.

The Personal Pronouns are

	first person	second person	third person
singular	nɨwɨ	gɨwɨ	gawɨ
dual	naawɨ	kɨwɨ	?
plural	neno	kɨwɨ	ki (?)

Some pronouns in another list end in -no instead of -wɨ and this set here occurs with -gano which is unrelated to Baruya but could be indicative equative, e.g. nɨwɨgano *It is I*. The form given for *they two* was kaybwaraal which is probably based on a demonstrative.

2.8. Ampale

The **Ampale** language, with 3,420 speakers, is spoken north of the main **Yagwoia** area along the eastern flank of the Kratke Range near Mt Piora. Most analysis has been done in the northern dialect, **Wojokeso**, which stretches from the Waffa River, near Mt Piora, to the Banir River, 960 speakers. Some material was collected from the Central dialect, **Aiwomba**, which includes the Banir River and south to the village of Umba where N. Bourne is studying the language, 1,920 speakers. **Aiwomba** is the name of a small, but important village. The southern dialect, about 540 speakers, is called **Yaponya**; only a word list of 40 words was available from this dialect.

D. West (1967) calculates that the central and northern dialects are 92% cognate. From the 40 words, central and southern dialects are 92% and northern and southern are 90% cognate.

Ampale is the name of an area along the Banir River from which the northern groups migrated. The Government at Menyamya has called the central area the Tauri Headwaters.

2.81. Phonology

The phonology is described by West and West (forthcoming). The following description follows closely their analysis.

The 16 consonants are p, t, k, h, glottal stop, v [p], z [s], z [š], s [tš], r, m, n, ny, ng, w and y. The seven vowels are i, ɨ, u, e, æ, a and aa.

The phoneme z [š] does not occur in the Aiwomba dialect and so not in examples in this paper. The voiceless glottal fricative h varies freely with a voiced fricative between vowels. It becomes a velar fricative before front vowels and it becomes a voiceless nasal before syllabic m and n. The voiceless alveopalatal affricate s is voiced after nasals. The bilabial v which varies to labio-dental with some speakers is voiceless word initially and is voiced between vowels. The flapped lateral becomes a flapped vibrant [ř] between vowels.

The short vowels ɨ and a have many variants somewhat the same as Baruya. The vowels i and u are slightly long and the vowels e, æ and aa are fairly long. The vowels tend to be longer when pitch-accented. Utterance finally vowels tend to be voiceless or lost.

The vowels ɨ and æ do not occur word initially. In fact æ only occurs after labial consonants and rarely before vowels, though æ and a has been recorded. All vowels occur medially and finally. The sequence ui does not occur, aa only rarely occurs with a, and ɨ only occurs next to other vowels by interpretation. Other than these exceptions which include æ, two vowels co-occur, but in separate syllables.

Except for ng and glottal stop all consonants occur word initially. No consonant occurs word finally. All may occur word medially. Initially clusters of two consonants occur where k, h, s or z are followed by w. Word medially, but syllable initially, glottal stop is followed by m, n, ny, w or y. The consonant m occurs before 'm and 'n, and n precedes ny. The only cluster involving ng is ngk, normally written nk. Clusters of hm and hn occur initially and medially.

Pitch-accent is phonemic and it is a complex of high tone and stress. It occurs anywhere within a phonological word, but only on one of the last two syllables of a grammatical root. Pitch perturbation is regressive.

2.82. Grammar

West and West destinguish the following clauses by external distribution and their occurrence with various mood and other clitics or words. General clauses normally occur in sentence final position. Non-equational General clauses occur with (1) mood morphemes as General Final clauses, (2) medial markers as General Medial clauses, (3) personalizing clitics as General Included clauses and (4) -'na *when* as General Marginal clauses. Equational General clauses only occur with mood morphemes and two of the medial markers. There are two Contrafactual clauses: the Result clause or Past Subjunctive occurs sentence finally with mood morphemes and Conditional Subjunctive occurs sentence medially in positive or negative forms. Dependent clauses occur in certain constructions with medial markers and in other constructions without them. A fuller treatment may be found in D. West (1970). The various verbs, moods, medial markers, etc. are discussed in the present paper.

The internal structure shows the following kinds of clauses. Ditransitive clauses occur with two optional objects, Object function and Indirect Object function, and the verb in Predicate function occurs with obligatory object person affixes. Transitive clauses occur with one optional object, either Object or Indirect Object function, but never both and the verb optionally occurs with object person affixes. One kind of Quotative clause has Indirect Object function and Quotation function, the latter instead of Object function, and the verb obligatorily occurs with object person prefixes. Intransitive clauses never occur with any object or a verb with object person affixes. Impersonal clauses occur with a subject pronoun in Goal function and certain verbal nouns in Subject function and the verb in Predicate function is only third person singular subject and occurs with obligatory object person affixes. Except for Impersonal, verbal nouns optionally occur in all these clauses in Predicate Complement function. A general verbal noun is zaaha *sleep*. An impersonal verbal noun is misaha *hunger* as in the Impersonal clause nka misaha ni-y-aha-ha I hunger to me-do-(complete)-he *I am hungry* (Hunger has done to me). Instrument function optionally occurs with Ditransitive and Transitive clauses, but not the others. Other functions that occur in almost any clause are Time, Location, Accompaniment, Manner, Purpose and Referent.

Equational clauses in Ampale consist of a Subject function and Predicate function. Occurring in Subject function are the same words and expressions that occur in any non-equational clause level function except Predicate and Quotation functions. Typical items are pronouns, Modified Noun

Phrases, Co-ordinate Noun Phrases, Temporal Noun Phrases and many of the preceding with various clitics (function markers). Predicate function is manifested by bound mood morphemes (clitics). These are -vaha (indicative), question word plus -ta (question), -taaha (interrogative), -'maaha (negative) and -tɨkena (dubitative).

Items occurring in noun phrases are demonstratives or possessor pronouns, nouns, attributive clauses or adjectives, modifiers and numerals, and limiters. Not all these items co-occur, the usual maximum being three in one phrase. The nouns recognized by the Wests are Animate, Inanimate, Possessed Kinship, Temporal and Verbal.

The function markers are -ma *in, among, to, toward* (indirect object); -'mna *inside*; -pa *at, on*; -'nsi *with, and, of* (instrument, co-ordination, accompaniment); -'na *about, for* (referent); -'ne *for the purpose of*; -ntaa'ne *from*; and -pa'aanga or -paa'nya *like*.

Subject Personal Pronouns are

	first person	second person	third person
singular	nka	kɨka	kaaka
dual	nekwa	zika	zika
plural	naakwa	zekwa	haavɨka

The object person affixes are included in the term stem in the following outline of Ampale verbs. With class 2 verb roots, which include *put, kill* they occur immediately following the root. With other verb roots they immediately precede the root. Object person affixes are

	first person	second person	third person
singular	nɨ-	kɨ-	u-
dual	e-	ze-	u-
plural	naa-/ne-	ze-	u-

Following the verb root a set of voice suffixes optionally occur. These are -k (causative), -n (reflexive), -hm (abilitative) and -wa'n (customary).

Current work on complex morphophonemics should clarify the structure of verbs.

Present Progressive and Present Complete consist of stem, tense-aspect suffixes and basic subject person suffixes. Present progressive suffix is -aarakw and present complete suffix is -aha. The basic subject-person suffixes are listed in Appendix E. The above verbs are indicative mood. Negative mood consists of a compound verb ma- (negative), stem, tense aspect suffixes, verb stem *do* with Present Complete affixes. ma-n-aaraku-y-ah-ana (negative)-eat-(present progressive)-do-(present complete)-I *I*

am not eating. ma-n-aha-y-ah-ana (negative)-eat-(present complete)-do-(present complete)-I *I have not eaten.* There is an alternative negative form, ma-stem-a'nsa plus indicative form of the verb *do* mana'nsa yahana *I have not eaten.* Question mood consists of a question word preceding an indicative verb. peha yaaravaha what he is doing *What is he doing.* Interrogative consists of prefix ra- (interrogative) preceding the indicative verb riyaaravaha *Is he working?* Dubitative mood occurs with ka- (dubitative) prefix, kiyaaravaha *Perhaps he is working.*

Regular Past, Far Past and Past Habitual also form a group. These verbs have the basic structure stem, tense, complete aspect and basic subject suffixes. Tense suffixes are -maar (regular past), -ment (far past), and -mat (past habitual). Probably complete aspect -ah occurred in all three tenses, but shortened forms have eliminated it with some persons. These basic forms are also indicative, though usually the clitic -vaha (indicative) also occurs. For negative the auxiliary ma- stem -a'nsa precedes an indicative verb, or ma- negative prefix may occur with the basic form plus -vaha (indicative). This latter form occurs with -'maaha (negative) instead of -vaha and a positive statement results. Question mood consists of a question word preceding the indicative form. If any mood suffix occurs, it is -ta (question). Interrogative mood may consist of prefix ra- occurring with the indicative form, but more usually suffix -taaha (interrogative) occurs. Dubitative mood occurs with ka- (dubitative) prefix, but more usually dubitative suffix -tɨkena occurs.

Near Future tense has the structure wa- (intention) stem, basic subject suffixes, future tense suffix and indicative mood suffix -ha. When a negative auxiliary precedes this form of the verb *do* a negative mood results. Other moods occur with an unknown morpheme -nti with *I* and *you* subjects and mood clitics such as -'maaha (negative).

Two subjunctive verbs constitute another group. The Positive Subjunctive works as a far future tense. It consists of stem, subjunctive subject suffixes, subjunctive suffix -ne and mood suffixes. The Past Subjunctive consists of na- (unreal?), stem, abilitative suffix -hw, subjunctive subject suffixes, subjunctive suffix, past subjunctive suffix -zahe and mood suffixes. The na- prefix does not occur with the verb *do.* Indicative mood with the Positive Subjunctive is -vaha and with Past Subjunctive is -ra. Besides the regular suffix -'maaha (negative) the Positive Subjunctive may occur with the negative auxiliary plus the indicative form of *do.* mana'nsa imnevaha not eating I will do *I will not eat.* An alternative negative for Past Subjunctive occurs when prefix ma- (negative) occurs with the full indicative verb. For question mood affix

-ta occurs with Positive Subjunctive and affix -ra (evidently indicative) occurs with Past Subjunctive; both constructions also occur with question words.

The remaining tenses, or aspect, do not occur as included clauses and only positive or negative forms occur. The Imperative verb occurs with imperative prefix va- in second person to form the Imperative and with intentive prefix wa- in the other persons to give a hortatory sense. The stem occurs next in the verb, then imperative subject suffixes. Negative consists of the negative auxiliary preceding an Imperative verb *do*. mana'nsa wa-y-uma not eating (intentive)-do-I *Let me not eat it.*

The Undesired Subjunctive consists of stem, subjunctive subject suffixes, subjunctive suffix in the form -na, and indicative suffix -ha. y-a-na-ha do-he-(subjunctive)-(indicative) *It is not good for him to do it.* The negative consists in preposing this form of the verb *do* with the negative auxiliary.

The Conditional Subjunctive consists of stem, -ant (unreal) suffix and the fused conditional subjunctive subject suffixes. y-ant-i'mtentezi do-(unreal)-if I had *If I had done it.* Negative auxiliary may precede this form (*If I had done it*).

The Future Imperative consists of the abilitative suffix occurring after the stem of an Imperative verb. In second person, however, the changes seem greater than warranted by morphophonemic changes u-y-i'-ma (intentive)-do-(abilitative)-I(imperative) *I will do it.*

The Negative Imperative consists of stem, abilitative suffix, prohibitive subject suffixes and indicative -ha. Other verb stems but *do* occur with na- prefix, perhaps meaning *unreal.* i-'-me-ha do-(abilitative)-I (prohibitive)-(indicative) *I should not do it.*

A possible stative form is being researched. It appears to have the structure of stem, stative suffix and basic subject suffixes. The stative morpheme is -ta or -ra. It is expected that this form works the same way as the present tenses.

Two phrases occur which enlarge the aspects. The Desiderative Phrase occurs with any tense of the verb *do* following a variation of the Near Future verb with the clitic -'na *concerning.* u-y-um-ne-'na imaare (intentive)-do-I-(future)-about I did *I wanted to do.* The Anticipation Phrase likewise occurs with any tense of the verb *do*, but following the Positive Subjunctive, perhaps with -'na *concerning* and the affixes for Past Series Dependent verbs y-a-ne-'n-ta yaaravaha do-he-(subjunctive)-about-he(series) he is doing *He is expecting to do it.*

Most of the preceding verbs and both phrases also occur with medial

markers instead of mood affixes. There are three bound forms -za *and*, ka- *but* or *though* (note this is a prefix), and -'maansi *if*. The free form is kaarahi *because*. Only the last two kaarahi and -'maansi occur with what would be Equational clauses if they had equative clitics. yaahu-hwasɨ-'maansi pig-you-if as in the sentence *If you are a pig (I will shoot you).*

The co-ordinate medial marker -za only occurs with non-future General verbs and the Future Co-ordinate Dependent verbs, described with other dependent verb n-ɨment-iza-za eat-(far past)-he-and *He ate long ago and...*

All general verbs and the two phrases occur with 'personalizing clitics' as included clauses. In various functions they also occur with the appropriate function markers as do Noun Phrases. The Subject function form for masculine and feminine are as follows:

	Masculine	Feminine
I	-hwa'ni	-i'ni
you	-hwasi	-ki
he, she	-hwa	-i
we two	-hwayaa'i	-vayaa'i
you two	-hwaahusi	-vaahusi
they two	-hwaa'u	-vaa'u
we	-hwanaa'ni	-vanaa'ni
you all	-hwaasi	-vaasi
they	-hwaa	-vaa

Some morphemes may be seen -hwa (masculine), feminine is -i (singular) and -va (plural), -'ni *I*, -si *you*, -yaa'i *we two*, -aahusi *you two*, -aa'u *they two*, -naa'ni *we*, -aasi *you all* and -aa *they*.

All general verbs and the two phrases occur with morpheme -'na *when* to make a marginal clause. wanɨmaanga kinɨnkuhwaza-'na kɨka hiyaaya ntɨ'ma shame it eats you-when you hide where *When you are ashamed, where will you hide?*

All the basic verbs discussed to this point occur, with the appropriate mood, in sentence final position. One of these is the Past Subjunctive, which occurs in final position, but is interdependent with Conditional Subjunctive which only occurs sentence medially.

There is a set of verbs which only occur sentence medially to make Series, Sequence or Simultaneous Sentences. These Dependent verbs also occur with the medial markers, but see below. All forms occur with an optional focus prefix na-. If present it indicates the action is highlighted, if absent that the actor is highlighted. Only future and non-future are distinguished in tense. A different subject Sequence verb

occurs with relationship suffix -aahanɨnk followed by different subject non-future subject suffixes or followed by dependent future subject suffixes. Future na-n-aahanɨnk-u'ma (focus)-eat-(different subject sequence) -I (future) *after I will eat.* Non-future na-n-aahanɨnk-a (focus)-eat-different subject sequence)-I (non-future) *After I ate...* A different subject Simultaneous verb occurs with relationship suffix -antaanɨnk followed by the tense-subject subject suffixes as for the preceding verb. The partial -nɨnk could indicate a change of subject. na-n-antaanɨnk-u'ma (focus)-eat-(different subject simultaneous)-I(future), *While I will eat...* na-n-antaanɨnk-a *While I ate...*

There are two other dependent verbs but these do not occur with an overt relationship suffix. The Series Dependent verb is followed by a clause with the same subject. It is considered that the relationship can be either sequence or simultaneous. na-n-u'ma (focus)-eat-I(future) *I will eat and I...* na-n-ansi (focus)-eat-I(non-future same subject) *I ate and I...* The partial -ant may be a morpheme, -ant plus -yi becoming -ansi. See Appendix E for subject suffixes.

The Future Co-ordinate Dependent verb is the only dependent verb to occur with -za *and*, see medial markers. The subject of a following clause can be same or different. The structure of a Future Co-ordinate verb is stem and future co-ordinate subject suffixes. n-ɨme-za eat-I(future co-ordinate)-and *I will eat and...* The prefix ka- *but* also occurs with the Future Co-ordinate verb plus -za *and.* ka-n-ɨme-za but-eat-I (future co-ordinate)-and *But I will eat and...* or *I will eat but...*

2.9. Angaataha

The most diverse language in the family is **Angaataha.** This language once covered a big area including the Kapau, Kareeba and Indiwi valleys (information from Tom Palmer). The **Kapau** drove them out and only 1000 remain, mainly in the Langimar Valley, but the village of Manki (130 people), near the Watut River, is also **Angaataha.** The people have been named **Langimar**, after the river, but it is not a local word. The people call the language **Angaataha** and themselves Angaatiya (-iya *they*).

No dialect differences are known.

2.91. Phonology

This outline of **Angaataha** phonology follows Huisman and Huisman (in preparation).

The 11 consonants are p, t, k, glottal stop, r, s, m, n, ng, w, y.

Glottal stop is symbolised h in the practical orthography. The seven vowels are i, ɨ, u, e, a, o and aa. The four tonemes are high, low, high-low glide and a low-high glide.

The stops p, t, k are in free fluctuation with the corresponding voiced stop following nasals.

The alveolar flap r freely fluctuates with a lateral flap. The grooved fricative s freely fluctuates with the affricate [ts], and a voiced affricate [dz] occurs following nasals.

The vowel ɨ is usually very short, a tends to be a little longer, i, u and e are usually medium in length, o varies from medium to long, and aa is always long.

The vowel a freely fluctuates with a higher variant next to s, y, t or r.

The vowel ɨ varies to [ɪ] next to s, y or 'i, varies to [e] before 'e when not following s or y, and varies to [o] before 'o when not following r.

Stress is predictable and occurs in conjunction with a high or a glide toneme. Any toneme occurs on any syllable of a word.

All vowels occur word medially. Except for ɨ, all occur word initially. Except for u and aa, all vowels occur word finally. Within the syllable only ai and au clusters occur. In separate syllables o occurs before a, aa, e or the cluster ai, and i occurs before the cluster ai.

Glottal stop and r only occur between vowels. Initially ng only occurs before k.

Word initial nasals before stops and s are syllabic. No consonant occurs word finally, though m, n, ng, p, t, k occur syllable finally, word medially. Word or syllable initially the clusters ny and pw, kw and mw occur.

A computerized phoneme count of text shows ɨ 16%, a 14%, n 9% and t 8%.

2.92. Grammar

The following outline follows closely Huismans' work (forthcoming).

Equational clauses in **Angaataha** have the same structure as the other languages. Predicate function is manifested by bound or free mood morphemes. These are -e (indicative), question word plus -e for question mood, -o (interrogative), -ntɨ'o (dubitative) and for negative the word maa'e. Question Equational clauses may occur without any noun, etc. Question stems that occur are napa *what* and maa *which*, followed by the appropriate function morpheme, e.g. -'o *he* (subject) or -'apɨ' (location) and closed by the indicative morpheme -e. maa-'o-e which-he-is *Who is he?*

maa-'apɨ'-ap-e which-(location)-to-is *Where is he going?*

Occurring in the basic Noun Phrase are possessors, nouns, demonstratives and adjectives. There is agreement between the noun, demonstrative and adjective. Each must occur with the noun class morpheme of the noun. This is the only Angan language known to have agreement within the phrase. The noun class suffixes are (1) -o with nouns for *man, heart* or *bird*; (2) -aatɨ with *woman, bird species*; (3) -ɨrɨ with *sweet potato, tooth*; (4) -a'a with *banana, stone*; (5) -atɨ with *tree, stone*; (6) -ɨpa with *cassowary, goods*; (7) -antɨ with *pig fruit* and many borrowed terms. Less frequent are (8) -angɨ with noun for *house*; (9) -anaatɨ for *knife*; (10) -i'ɨ for *net bag*; (11) -mwangɨ for *mouth, nostril*; (12) -inya for children. Possessors may be possessor pronouns or the basic Noun Phrase with the possessor clitic -mɨ.

Various clitics occur with the Noun Phrase and this then functions in other constructions, usually clauses. Subject function is unmarked. Object and Indirect Object occur with function marker -i. Others are -apɨ (reference), -isa (accompaniment 1), -iya (accompaniment 2), -unɨ (conjunctive), -ra (instrument), -enta (animate direction), and several locative forms including -aasɨnɨ *on* and -aatɨ'ɨ *in*. When the goal of direction is inanimate the reference morpheme -apɨ occurs. This morpheme covers the possibilities of reference, direction, purpose, desire and reason.

Subject Personal Pronouns are

	first person	second person	third person
singular	nɨnɨ	kɨnyɨ	ko (he)
			kaatɨ (she)
dual	ya'oangɨ	sa'oaa'ɨ	kurɨ
	yainsangɨ (ya)	sainsaangɨ (sa)	kapurɨ
plural	nya'ɨ	sa'ɨ	kiya

Independent verbs usually occur sentence finally with mood morphemes. Aspect in Angaataha is a separate category from tense. Independent verbs have the same structure in the first part of the word. Certain verb stems normally occur with na- or ka- prefix (compare Kapau) but others occur with neither. When ka- is prefixed to verbs normally prefixed by na- or neither, the idea of action already begun is conveyed. Indirect object prefixes occur immediately before the root. These are

	first person	second person	third person
singular	n-	nk-/'-	u-
dual	ny-	s-	u-
plural	ny-	s-	u-

When aspect occurs with Angaataha verbs certain basic subject suffixes precede them and other subject-persons occur in the same verb. This suggests that aspectual verbs were once two verbs which fused into one form. The common aspects are -osa (perfect), -ma (complete), -oaatɨ (continuative) and -aa (imperfect). The latter only occurs in Imperfect verbs. The Basic Subject-person Set is:

	first person	second person	third person
singular	-tɨ	-pɨ	-tɨ
dual	-'ɨ	-Mɨ	-Mɨ
plural	-'ɨ	-Wɨ	-Wɨ

The morphophonemes M and W are both the phoneme p when they are preceded by a stem final long vowel. Elsewhere they are respectively m and w.

Imperfect verbs usually refer to present time. In the following discussion na- or ka- prefixes and the indirect object prefixes are included under the term stem. Thus Imperfect verbs consist of stem, basic subject suffixes, imperfect suffix -aa, verb stem i *do* and mood suffixes. All these suffixes are given in Appendix F, so that morphophonemic changes can be seen. The mood suffixes also change for person -o (first person), -ise (second and third person singular and dual), and -opo (second and third person plural). na-na-t-aa-y-o (prefix)-eat-I-(imperfect)-do-(indicative) *I am eating.* Negative consists of prefix maa- occurring following na- prefix. na-maa-na-t-aa-y-o *I am not eating.* Interrogative mood also changes according to person; -no occurs with first person and second person singular, -so with second person dual, third person singular, and dual, and -wo with second and third person plural. The first vowel of the indicative mood suffixes also occurs with other mood suffixes, i.e. o in first person, second and third person plural and i with the other persons. This suggests that another morpheme may be present as well as mood. na-na-t-aa-y-o-no (prefix)-eat-I-(imperfect)-do-(vowel)-(interrogative) *Am I eating?* Negative interrogative is the preceding interrogative occurring with maa- (negative). For Question mood a question word precedes the indicative form. napintɨ nantaayo what I am eating *What am I eating?* The Dubitative mood occurs with suffix -ntɨ'o. na-na-t-aa-y-o-ntɨ'o (prefix)-eat-I-(imperfect)-do-(vowel)-(dubitative) *Perhaps I am eating.* The Negative Dubitative is the Dubitative occurring with maa- (negative).

Past tense occurs with the same moods as Imperfect verbs. Unless the vowels above are subject morphemes neither subject or tense are indicated. The final morpheme of the verb is mood, which changes for person. Indicative mood distinguishes three different subject persons. However, with aspects other contrasts are evident. na-nɨ-'o (prefix)-eat-I(past indicative) *I ate.* na-na-t-oaas-o (prefix)-eat-I-(continuative)-I(past indicative) *I continually ate.*

Future tense occurs with the same moods as Imperfect. No direct subject occurs but future suffix -ta precedes the mood suffixes. na-n-t-o (prefix)-eat-(future)-I(indicative) *I will eat.* na-n-ta-a-no (prefix)-eat-(future)-(vowel)-(interrogative) *Will I eat?*

The Desiderative tense has a complex of tense, subject and mood that is hard to separate. The basic desiderative tense suffix is -taatɨ, but -tɨ'aaw occurs with *we two* and *we.* This suffix is followed by the basic subject person set, then -iy or -ai which may be past tense stem of *do,* and mood suffixes occur finally. Desiderative could be another compound verb. na-n-tan-t-iy-o (prefix)-eat-(desiderative)-I-do-I(indicative) *I want to eat.*

The Imperative shows some relationship with the Desiderative. The mood suffixes appear to be -aano *I,* -e *you, he,* -o *we two, we,* -se *you* or *they two* or *all.* This gives a structure of subject suffixes and imperative suffixes. The subject suffixes have -tɨ'aaw for *we two* and *we.* Appendix F presents the fused morphemes. Only positive and negative forms occur with Imperative. na-n-taano (prefix)-eat-I(imperative) *I must eat.*

A Stative verb has been noted in third person singular. Its structure is prefix, root, reflexive suffix -na, stative suffix -t and mood suffixes. Until other persons are discovered the final two suffix sets are in doubt. n-u-n-t-ise (prefix)-open-(reflexive)-(stative)-he(indicative) *It is open.*

The Habituative only occurs with noun class morphemes and clitics, compare Kapau, in included clauses. The structure is prefix, stem, basic medial subject-person suffixes, noun-class suffixes, person suffixes and usually equative mood suffixes. na-n-tɨ-'o-nɨn-e (prefix)-eat-I-(male)-I-am *I am one who habitually eats.*

Dependent verbs usually occur sentence medially and show a relationship with a following verb. Primary dependent forms usually occur with -'ɨ (change of subject). Primary dependents distinguish future and non-future tenses.

Primary Simultaneous non-future dependent consists of stem, simultaneous non-future subject suffixes and the primary suffix -'ɨ. na-nɨ--'onɨ-'ɨ (prefix)-eat-I(simultaneous non-future)-(primary) *While I am eating he...*

Primary Simultaneous future dependent consists of stem, dependent future suffix -sa, simultaneous future subject suffixes and the primary suffix -'ɨ. na-in-s-anɨ-'ɨ (prefix)-eat-(future)-I(simultaneous future)-(primary) *While I will eat he...*

In dependent verbs the aspect suffix is preceded by the basic medial subject person suffixes, Appendix F. na-n-tɨ-ma-'onɨ-'ɨ (prefix)-eat-I-(complete)-I(simultaneous non-future)-(primary) *While I ate it all he...*

Secondary Tight Antecedent (same place) verbs are followed by a clause with a non-motion verb. The close relationship between the two verbs is shown by the basic medial subject set, Appendix F. na-n-tɨ (prefix)-eat-I(tight) *I ate and I...* Secondary Tight Antecedent, but with a motion verb, occurs with suffix -Mɨ for all persons. na-na-mɨ (prefix)-eat-I etc. (tight) *I ate and I...* The subject is determined by the following clause, as is the tense.

Secondary Loose Antecedent occurs with the basic medial subject suffixes, -a (loose antecedent) and a variation of the medial subject suffixes. See Appendix F. A lapse of time occurs before the action of the second clause. na-n-t-a-tɨ (prefix)-eat-I-(loose)-I *I ate and later I...*

Secondary Imperfect occurs with basic (independent) subject suffixes, -aa (imperfect), and another variation of the basic medial subject suffixes (see Appendix F). na-na-t-aa-tɨ (prefix)-eat-I-(imperfect)-I *While I was eating I...* The first person plural breaks a neat pattern with both Secondary Tight and Loose.

Secondary Complete occurs with basic medial set followed by -mapɨ (complete). The suffix -mapɨ is related to the primary suffix -ma (complete). na-n-tɨ-mapɨ (prefix)-eat-I-(secondary complete) *After I ate I...*

Secondary Continuative occurs with the secondary continuative suffix -mpɨ or -insa and the basic medial subject suffixes (see Appendix F). na-nɨ-mpɨ-tɨ (prefix)-eat-(continuative)-I *I continued eating and I...* Note that the subject suffixes occur finally with this verb.

Secondary Conditional occurs with the secondary imperfect suffixes followed by the conditional suffix -aa'ɨ. na-na-t-aa-t-aa'ɨ (prefix)-eat-I-(imperfect)-I-if *If I eat I...*

Primary Conditional occurs with -sa (dependent future), simultaneous future subject suffixes and -aa'ɨ (conditional). It is the same as Simultaneous Future with -aa'ɨ instead of -'ɨ. na-in-s-an-aa'ɨ (prefix)-eat-(future)-I(simultaneous)-if *If I eat he...*

Contra-result occurs with contra-result subject suffixes and in first person with -panɨ (contra-result). This verb is followed by a clause with either the same or a different subject. na-n-tɨ-panɨ (prefix)-eat-I-(contra-result) *Lest I eat/he...*

Both Conditionals also occur with a following Contrary Fact Result clause and assume an unreal meaning. A Contrary Fact Result verb occurs sentence finally, but always with another clause. It consists of prefix, stem, contrary fact subject suffixes and -e (indicative). na-na-taanɨ-'e (prefix)-eat-I(contrary fact)-(indicative) ...*I would have eaten it.*

Included clauses usually occur in regular clauses, but also in phrases. Included clauses, to date, are only based on independent verbs. Noun class suffixes and person-number suffixes occur with the verb. Compare the Habituative, which has only been found in included clauses. The masculine and feminine forms are the most common, as follows:

Masculine

	first person	second person	third person
singular	-'o-nɨnɨ	-'o-ngɨ	-'o
dual	-'ur-angɨ	-'ur-aa'ɨ	-'urɨ
plural	-'inkwan-aanɨ	-'inkwaas-aatɨ	-'inkwaasɨ

Feminine

singular	-'aa-nɨnɨ	-'a-ngɨ	-'aatɨ
dual	-'ins-angɨ	-'ins-aa'ɨ	-'ɨpurɨ
plural	-'iny-aanɨ	-'iny-aatɨ	-'inya

Further investigation will further clarify grammatical points in **Angaataha** and change some of the analysis as presented here.

2.10. Kamasa

Little is known of this small group of people, numbering about 50. For their history as related to the story of Katsiong see Sinclair (1966:80). Sinclair however did not mention the linguistic diversity which is present in Katsiong. Sinclair says the Katsiong people lived near the Tauri River at a village Katsipi. McCarthy (1963) mentions the villages of Katchipi and Wanyang, between the Isimp Divide and the village of Arifogo, on his 1933 patrol. Sinclair (1966) states Katsipi was still near the Tauri in 1937. The people were driven away by a **Menya** group (**Gwatera** in Sinclair 1966, and both **Kwatala** and **Yamnaqanja** in Fischer 1968) and came by stages to Katsiong in the lower mid Banir region. The Kwonikwinggi were also driven to Katsiong. Yaiepiep joined with some Simbi men and came to Katsiong, and still later Arifogo people came. Fischer (1968:37) says that the **Yagwoia** were the second group to come to Katsiong. The first people at Katsiong were the **Kawacha** and they had lived at Katsipi. Fischer, without giving any order of arrival, says that the **Yamnaqanja** (**Menya**), the **Natsa** (**Angaataha**) and the **Inecha**

or **Kwamaqa** (**Kamasa**) came later. Fischer says that **Natsa** probably means Simpi. While at **Karunja** a new hamlet from Katsiong I was given the name **Chimbi** as an alternative for **Kamasa**. Thus Sinclair's **Simbi** probably refers to the **Kamasa**, also Kwonikwinggi and Yaiepiep (?) are likely to be **Kamasa**. Both **Angaataha** and **Kamasa** may have lived at the Isimp River (=Simbi). Fischer's use of the name **Kwamogh** (=Kwamaqa) is close to a village name Kwamaka on an Army map. The map locates Kwonikwinggi 5 miles to the east of Kwamaka. On the map a new village Wapira-Kamaka replaces Kwamaka. So perhaps **Kwamaka** or **Kamaka** are alternative names for **Kamasa**. This is possible because when I visited Karunja hamlet **Kamasa** men from the other hamlet Kazavarepa said that more **Kamasa** people lived in the **Menya** village of Akwanje. They may have referred to that general area as Akwanje.

From Appendix G there are 18 **Kamasa** at Katsiong.

2.101. Phonology

The 12 consonants of **Kamasa** appear to be p, t, k, glottal stop, h, m, n, ng, s, r, w, y. The seven vowels are i, ɨ, u, e, a, o and aa.

The stops and s are voiced following nasals and between vowels.

The vowels ɨ and a appear to be modified, particularly by following phonemes. Backed or rounded variants occur before velars, w or o. Fronted variants occur between any combination of s, y or i.

Voiceless vowels were observed word finally.

The phonemic system appears to be like **Ampale**.

Glottal stop, ng and r do not occur word initially. No consonant occurs word finally. Glottal stop, m, n or ng occur syllable finally. Combinations 'm, 'p, 'y, 'n, 't, 'k, pw, kw, hw, sw, mw, ngw, ky, ny, nk occur in the short sample. Syllabic nasals occured in the sequence 'm'm (compare **Kapau**).

The vowels ɨ and o do not occur word initially nor the vowels u word finally. Combinations of vowels are rare, but the following were noted iaa, aai, aae, eaa, oi, io, ai and au.

2.102. Grammar

Several nouns end in -voko or -miko or -mɨko and these appear to be variations of an indicative equative morpheme (compare **Ampale**). Occurring with pronouns is -ko, also probably equative. Common partials occurring before these equative morphemes indicate noun class morphemes.

The numerals for *one* and *two* seem to be based on a morpheme hu (compare **Menya**). The other numerals are based on tu *this*.

Most of the verbs in the lists occur with -mɨno which may mean *he* (present), but could be *I* (present).

The Personal Pronouns are:

	first person	second person	third person
singular	niko	siko	sɨwaninko (?)
dual	yeko	kaiko	kaiko
plural	newako naako	?	eko (?)

2.11. Kawacha

The only known speakers of Kawacha number about 30 and live in Karunja, one of the three hamlets into which the old Katsiong settlement is divided (see Kamasa introduction above). Fischer (1968) calls these people Katje (=Kaacha), the Yagwoia term, but notes that they call themselves Kavotjo (=Kaawacho). A word list was collected in the Langimar Valley from visitors from Katsiong and two other lists from Karunja hamlet.

2.111. Phonology

The consonants appear to be p, t, k, glottal stop, f, m, n, ng, s, l, r, w, y. It is likely h also occurs. The vowels are i, ɨ, u, e, a, o and aa.

The stops are voiceless word initially but tend to be voiced after nasals and voiced and fricative between vowels.

The phoneme s is an affricative. The phoneme l is a lateral which fluctuates with a voiceless lateral fricative word initially and appears to be [ž] word medially. The phoneme r varies between an alveolar flap and a lateral flap. Closer attention needs to be given to the phonetics in this area.

Some modification of vowels ɨ and a were noticed next to y and s, producing a fronting, and next to w, o and velars producing backing.

Some syllabic nasals were recorded in fluctuation with nasal plus ɨ usually. Thus msa'a and mɨsa'a both occurred for *hair*.

Glottal stop and ng were not observed word initially, nor any consonant word finally. Elsewhere all consonants occurred. The following consonant clusters occurred: pw, kw, py, ny, my, ns, nk, mm, nn, mp, ms, ngw, 'm, 'w, 'y and 'ny.

The vowels ɨ, o and u did not occur word initially, but all occur medially and finally. The combinations of vowels noted were ei, aai, ai, ia, oi, io.

2.112. Grammar notes

Some verbs occur with a ka- prefix (compare Kapau). The verbal suffixes varied too much for profitable comment. Modifiers follow the noun. The numerals *one* and *two* are based on hu or hɨ and for *three* and *four* are based on ta, probably *this*. This numeral system is like other Angan languages.

The Personal Pronouns are:

	first person	second person	third person
singular	nyi	si	ke
dual	ye	si (?)	hepaa'u
plural	nemaka	lenemaka (?)	hɨwaaweka (?)

2.12. Ankave

The Ankave language is the biggest of the Angan languages lying completely within the Gulf District. There are about 1,500 speakers and 485 of them have been censused. The Ankave live in the valleys of the M'bwei River and the Upper Swanson. Most of the population live in the latter area. Some dialect differences were noted between the M'bwei and Swanson. The Swanson River is called Ankave in the language. Another name suggested was Paayita, but this seems to be a clan name. The Kapau call the people Kwingi.

2.121. Phonology

The consonants of Ankave appear to be p, t, k, glottal stop, m, n, ng, s, r, w, y. There appears to be an h word initially, which sometimes fluctuates with s. There could be a series of prenasalized stop phonemes. The vowels are i, ɨ, u, e, a, o and aa.

The voiceless stops have voiced fricative variants between vowels. The phoneme y fluctuates with fricative y between vowels.

Vowels are affected by their enviroment, especially ɨ and a which are fronted or backed according to whether they occur next to front or back phonemes.

The vowel ɨ does not occur word initially, but otherwise all vowels occur word initially, medially and finally. The only vocoid clusters noted were after medial p, [ɓ] so could be interpreted as ya, ye, and yaa.

The only instance of an initial ng is syllabic and occurs in the word for sugarcane. The phonemes r and glottal stop do not occur word initially. Glottal stop and one instance of n were recorded word finally. The consonant clusters were 'm, 'n, 'w, 't, 'd, 'y, md, mw, nk, ny, kw, gw, ngw and py.

2.122. Grammar notes

Final glottal stop is a feature and in one word list was lost if -ka occurred. The Ikundi list (M'bwei Valley) has piyaka and piya' *wet*. The possible morpheme -ka or -' could be equative and the recurring partial with many nouns -pɨ' may be noun class morpheme plus equative morpheme. In the list from Yagera (Swanson) the pronouns end in re or de which also could be equative (compare Kapau ti (indicative equative)). The list from Yagera has nyonde *I* and list from Bu (Swanson) nyonɨ' *I*.

The verbs in the list do not appear to be the same person or tense though naadɨna *he eats* is likely to be equivalent to Lohiki naarɨ *he eats*.

The Personal Pronouns are:

	first person	second person	third person
singular	nyona	yoka	o
dual	yuwaawi	waawo	awaakɨ
plural	none	soyɨ	owaa or jawaaya

2.13. Ivori

The Ivori language is spoken in the valleys of the mid Ivori. There are perhpas 400 speakers of this language, but no census has been taken. The name Tewe (or Dewe) was suggested for these people and may be based on the Kapau name for them, Tigwaata. Tewe was the name of an old Census Division. Franklin (1970) used the name Agama.

Ivori is closely related to the Lohiki language. The percentage given in this paper will undoubtedly rise as the two languages are studied

further. Toto (or John), the principal Ivori language helper, felt that Lohiki was another language.

2.131. Phonology

The consonants of Ivori appear to be p, t, k, glottal stop, h, m, n, r, w, y. The status of glottal stop is in doubt as all utterances end in glottal, sometimes with a voiceless vowel release. The vowels are i, ɨ, u, e, a, o and aa.

The stops are voiceless word initially and p fluctuates with a bilabial fricative [p]. Word medially the stops are voiced, even in clusters [bd] and [bg]. Between vowels the stops also tend to be fricatives. The phoneme h fluctuates initially with [š]. The phoneme n becomes the velar ng before velars.

The vowel e may be basically [æ]. Word finally it is hard to hear the difference between vowels, especially ɨ and a which are shorter than the other vowels. These short vowels are modified by w and y much the same as in other Angan languages. Some syllabic nasals were noted. One speaker fluctuated between a syllabic m and n before t.

The consonant r is the only one not to occur word initially. No consonant occurs word finally, unless glottal stop should be phonemic. Clusters noted were mk and mn, in which m is syllabic, mt, nt, nk, pt, pk, ky, kw, pw, mw, also nkw, pkw, mpy and mpw.

The only vowel not occurring word initially is ɨ. Elsewhere all vowels occur. Clusters noted are aai, iaa, io, oi, ie, ia.

2.132. Grammar notes

The partial -pɨ' occurs with many nouns in Ivori. The adjective follows the noun, haa saaigwe' stone small *a small stone*. The morphology of the verb is very similar to Lohiki, nari *he eats*, nɨmda *I eat*.

The Personal Pronouns are:

	first person	second person	thrid person
singular	to'	okɨ'	o
dual	toya'	oyankwe'	oya
plural	tonaai	aawa	taaikuwa

Compare the Kavaru pronouns of Lohiki.

2.14. Lohiki

The Lohiki language is spoken in the south-west of the language family area. It has an estimated 850 speakers, 350 of which have been censused. The language covers some small tributaties of the Ivori River, the main section of the Lohiki River, except its headwaters, and most of Evori Creek and Muruwaier River. Names suggested for this language include **Haagoya**, which is the **Kapau** term for the people, but this name is the same as Hangoia Census Division, which is completely **Kapau**. The name Lohiki, after the river, is used here.

2.141. Phonology

The consonants of **Lohiki** appear to be **p, t, k, m, n, r, s, w, y**. There could be **f**, voiceless bilabial fricative, but this may fluctuare with **p**. Glottal stop occurs finally and is probably not phonemic. One instance of **ng** between vowels was recorded, so **ng** may be a rare phoneme. The vowels appear to be **i, ɨ, u, e, a, o** and **aa**.

The stops and the affricate **s** [tš] are voiceless word initially and tend to be voiced word medially. The stops also tend to become fricative medially. Following nasals the stops are usually voiced. Initial **k** fluctuated with glottal stop. Stops fluctuate from voiced fricative to voiced stop when they occur before another stop.

The long vowel **aa** tends to be backed before **k**. The short vowels **ɨ** and **a** are backed or fronted according to the occurrence of back or front consonants or vowels. Before **y** and **w** vowels tend to glide to nonsyllabic **i** and **u** respectively.

Except **r** all consonants occur word initially, none finally and all medially. Clusters **nt, nk, kw, pt, pk, mk, mn, mt, ny, pw, mp, mm** and **pkw** were noted.

All vowels occur medially and finally and all but **ɨ** word initially. Clusters of vowels that were recorded in the short list were **ai, aai, iaa, eaa, ie, ia** and **oaai**.

2.142. Grammar notes

The partial **-vɨ'** occurs extensively with nouns and may be an equative morpheme, or a noun class morpheme or both. The adjective follows the noun it modifies. **andaga saaigwa'** stone small *a small stone*. *Smoke of a fire* is rendered **ta umagavɨ'** fire smoke. Special nouns occur with certain verbs. The entry for *he coughs* is **waavga'** which is *a cough*.

The Personal Pronouns are:

	first person	second person	third person
singular	nna	ndɨ	ndo
dual	ndannɨ	aavoya oyaanu'	aavoya
plural	naaitone'	aave anunu	aave daawuri

A man from Kavaru, on the other hand, gave the pronouns as:

ndo	ogɨ'	yago'
toya	yaaidoaai	goya'
tone'		ivaigi

There is a mixture of persons and tenses in the verbs in the lists. It appears that -aari means *he* (present) as in waari *he goes*, paari *he comes* and naari *he eats*. Likewise -mda' means *I* (present).

Dr Capell (personal communication) lists an Obi paradigm, probably of the verb *sit* as follows:

nna	omaamda	*I*	*I sit*
nda	omaaya	*you*	*you sit*
oga	omaaye	*he*	*he sits* (also o *he*)
tonai	omaayenda	*we*	*we sit*
ndawai	omaayendevɨ	*you all*	*you sit*
	omaaye		*they sit*

Here the verb root omaa *sit* is followed by tense (?), and subject person suffixes. Capell also cites one future form nna badana omaaka I (temporal) I will sit *I will sit.*

2.15. Angan Relationships

In Angan languages even in areas where a trade language is understood, several linguists have found it difficult to elicit information of high accuracy. When the author elicited verbs in Kapau, asking for third person singular of a present tense, he was given subjects *I, you, you all, he, they* and tenses immediate future, present continuous, imperative, immediate past and habitual. The phonologies and grammars are complex. Therefore the results of this comparison are tentative and dependent on further field work. This mainly applies to Kamasa, Kawacha, Ankave, Ivori and Lohiki. The author believes that such work will strengthen the suggestions made here and only slightly modify the position of individual languages.

An inspection of the Table of Cognate Percentages (2.2.) reveals that **Kapau** is most closely related to **Menya**; after **Kapau**, **Menya** is most closely related to **Yagwoia**, and the line continues through **Ampale** to **Kawacha**, to **Kamasa** and probably even to **Angaataha**. This final link is suggested on the basis of previous work (compare Hooley and McElhanon 1970). A secondary line branches from **Ampale** to **Baruya** and **Simbari**, which are closely related. The **Yaguya** dialect of **Yagwoia** should be closer to **Baruya** than the main dialect is. Another line from **Kapau** continues through **Ankave** to **Ivori** and **Lohiki**, which are also closely related.

2.151. Notes on Sound Changes

The main sound changes are discussed here and a study of the language lists will reveal other changes as well.

Syllabic **m**, word initially in **Kapau**, **Menya**, **Yagwoia** and **Kawacha** is still syllabic but assimilates to the point of articulation of a following stop in **Kamasa**, **Ankave**, **Ivori** and **Lohiki**. In **Simbari** and sometimes in **Ampale** it becomes **mi** and in **Baruya** and sometimes in **Angaataha** it becomes **mɨ**. **Ampale** sometimes becomes **mɨ** also. **Ampale**, **Angaataha** and **Simbari** also have syllabic nasals.

An initial **h** in **Kapau**, **Menya**, **Yagwoia**, **Ivori** and **Lohiki** usually becomes **s** in the other languages, except **Angaataha** and in some words also becomes **t**. In several languages there is fluctuation between **h** and **s** word initially, though the norm is usually clear. In **Angaataha** an initial **n** corresponds to **h** in **Kapau** and other languages.

In practically all instances an **ng** in **Kapau** becomes **n** in **Yagwoia**, though **ng** occurs as a rarer phoneme in **Yagwoia**. Sometimes a **Kapau ng** becomes **m** in **Ampale**, **Baruya**, **Simbari**, **Kawacha** and **Kamasa**. This may have been **mng** at an earlier stage. The medial combination **mng** in **Kapau** becomes **ng** in **North Menya** and **m** in **South Menya**. The **Ankave** language follows **Kapau** closely, but **Ivori** and **Lohiki** usually have **g** for **Kapau ng** except after **ɨ** and front vowels when **ngg** occurs. There are exceptions **yɨmɨnga** *wind* in **Ankave** is **yɨmga** in **Ivori** and **yamga** with syllabic **m** in **Lohiki**; both may be caused by the contraction. **Ankave** *egg* is **ki'mɨnga** while **Ivori** is **mungge** or **mge** and **Lohiki** is **mge**, the last two forms with syllabic **m**. Perhaps the **Kapau** words for *egg* and *head*, both **mnga**, were not originally homophonous. In **Ankave** medial **nggw** (or **nkw**) usually becomes **bg** (or **pk**) in **Ivori** and **vg** (or **pk**) in **Lohiki**. The exception is **Ankave maanggwu** *full*, which in **Ivori** is **maanggwe** and in **Lohiki** is **maagwe**; **Kapau** is **maanko**. Normally medial **ngg** (or **nk**) becomes **g** (or **k**), see *blood*. Perhaps **Ankave** *full* is **maanggu** and *belly* is **aanggwu**. Perhaps the **b** and **v** before **g** will prove to be phonemic **w**. With such limited data further speculation is unwise.

The backed velar q in Kapau is h in Ampale, and sometimes remains q and sometimes becomes k in those languages with both q and k. Kapau k sometimes becomes q and sometimes remains k in the languages with two velars. Once in Yagwoia an l occurs where the Kapau equivalent is q. In Baruya both k and q of Kapau often become g (prenasalized). In other instances q in Kapau becomes k in Baruya.

Often in Baruya and Simbari prenasalized stops are equivalent to voiceless stops in Kapau and other languages. In Kapau t in some words becomes r in Ampale, Kamasa and Ankave. Once Kapau n became t in Menya, Kawacha and Kamasa and r in Ampale. The Ivori word to' *I* may be an example of a change of Kapau n to t. Menya, Yagwoia, Kawacha and Kamasa for *you* (singular) was probably the result of adding -yi to Kapau t, see especially Menya pronouns.

Kapau v often becomes w in Yagwoia. The younger generation, thirty years old and less, in Baruya is pronouncing y where the older generation says vy. Kapau w often becomes v in Ampale, Kawacha and Kamasa.

Some dialects of Kapau have s where Yagwoia has hy. Kapau s is phonemically yh. The Kapau word for *skin* is hewa in Morobe and fewa elsewhere. Note that Menya is hviwa and in South Menya hiwa *skin*. Kapau f is phonemically vh. In other languages some words which are different in the main Kapau dialect appear in other Kapau dialects. Kapau yanga *leg* is suka in West Kapau; this is close to the Menya word. West Kapau could have both words in use.

Kapau glottal stop becomes a backed velar stop in Menya. Some glottal stops and voiceless velars in one language are lost in other languages.

Assimilation of consonants to a following consonant is a tendency in most of the languages. However, in Baruya all consonant sequences assimilate to the same point of articulation.

The vowels appear to be more regular though some changes are evident. Kapau a becomes i before s in Yagwoia. Kapau a also becomes i in Menya, but Kapau e may also become i in Menya. Kapau e becomes aa in some Ivori words. Kapau ya becomes e in Ankave. Several instances of Ivori i becoming Lohiki a were noted.

2.152. Common Phonological Features

All Angan languages appear to have phonemes p, t, k, m, n, w, y and probably ng. Most languages have glottal stop, the exception being Menya; with Lohiki and Ivori possible exceptions. Most of the languages have an alveolar flap or an unflapped lateral, Baruya and Simbari have both, and Kapau and Menya have neither. About half the languages appear to have a phoneme h. Kapau, Menya and Yagwoia have a backed velar as well as an

ordinary velar. One dialect of **Ampale** has three phonemic sibilants, another dialect has two sibilants. Some of the languages have one sibilant. **Menya** appears to have two. **Kapau, Menya** and **Ampale** have a bilabial fricative and perhaps other languages do also. **Baruya** has no syllabic nasals and their phonemic status in **Simbari** is unknown. Most other languages have syllabic nasals.

All Angan languages appear to have seven vowels. These are usually the same, but **Ampale** has no **o** vowel, and has a phonemic **æ** which appears to have developed from an earlier vowel cluster. The seven vowels are **i, ɨ, u, e, a, o** and **aa**. In most languages the vowels **ɨ** and **a** are short, **i** and **u** are medium length and **e, o** and **aa** are long. Phonetic variation in the vowels is great and the quality is hard to determine. The difference in length of these vowels differentiates them clearly, despite their wide phonetic variation. Vowels tend to be slightly longer in stressed syllables or in short words, then in unstressed syllables or in long words. In most languages studied in depth, vowel allophones go across the vocoid chart with less variation up and down the chart (compare Lloyd and Healey 1970).

Clusters of two consonants occur word initially and clusters of three word medially. Clusters of two and sometimes three vowels occur in many of the languages. The maximum syllable of consonant, semi-vowel, vowel, vowel, consonant is found in most Angan languages.

Tone and stress are combined in a complex unit which usually occurs in connection with the grammatical stem. **Angaataha**, with four tonemes, is noticeably different from the other Angan languages. In **Angaataha** stress is also linked to high tone. Thus **Angaataha** is like a 'tone language' and the others are more 'intonation languages'.

2.153. Common Grammatical Features

Common features of grammar are evident throughout the languages. The author considers that the grammatical comparison parallels the lexical comparison.

Counting systems are very similar. There are no numeral roots; the number words are based on modifier roots meaning *someone, another, this* or *that*. The modifier roots occur with singular and dual morphemes, and often occur with noun class morphemes. Thus there are words for *one, two* and phrases literally *two one* for *three* and *two two* for *four*. For higher numbers the nouns *hand* and *foot* are used.

Within the Noun Phrase possessor expressions precede the noun Head and

various modifiers follow. Various clitics occur with phrases to mark the clause function. These clitics are quite similar from language to language, see end of this sub-section.

Within the clause, adjuncts or verbal nouns occur to specify a particular action of a general verb. Some languages have an expression which translates literally as *water do* meaning *wash things*. Other examples are *sleep lie* meaning *to sleep, bite cut* meaning *to bite, ear hear* meaning *to hear.*

Usually the verb is the last item to occur in a clause. Subject, Object and Predicate functions often occur in that order. However, in many languages this order is not rigid. Case clitics mark the various functions.

The structure of the verb is fairly uniform. Often mood prefixes, then indirect object prefixes precede the root. Following the root are usually voice suffixes, sometimes aspect suffixes, then tense suffixes and subject person suffixes. These affixes are compared at the end of this sub-section. Sometimes aspect and tense are combined in one morpheme and sometimes these two and subject person are combined in one morpheme.

Future tense is usually stem, subject person suffixes and future morphemes. The unusual feature in **Angaataha** of a second subject set of affixes which normally occurs before aspect suffixes does not occur in **Angaataha** Future tense (see Appendix F).

Mood morphemes are similar in Angan languages studied in detail. Generally the same range of tenses occurs with similar mood systems from one language to another. **Angaataha** has an aspect system and not as many tenses as other Angan languages.

Morphophonemics are generally complex, especially in **Ampale** and **Angaataha.** A description of such changes has not been given in this paper. Oates (1968, p.6) has a short discussion for **Kapau** and Lloyd (1969) covers some features of **Baruya** morphophonemics.

There are recurring partials which occur with noun roots (compare Historic Class Markers in Lloyd, 1969:27).

In **Kapau**, a partial **-ka** occurs in such words as *man, male* and is usually the same in **Menya, Ankave, Ivori** and **Lohiki.** In **Yagwoia, Baruya** and **Simbari -la** occurs and in **Ampale** a possible shortened form of **-la** modified the preceding vowel; see item 1 *man* in language lists. Some **Kapau** roots, which appear to be basic, are the same in **Menya**, but occur in **Yagwoia** with a partial **-sa**, and in **Baruya, Simbari** and **Kawacha** with **-ka**, in **Ampale** with **-ha** and in **Kamasa** with **-'a**; (see item 34 *ground* in language lists). Most languages, in some words at least occurred with

-ya, which is called substantive marker in Lloyd (1969).

Personal Pronouns

The Personal Pronouns are difficult to elicit as often demonstrative pronouns are given instead. This is particularly true in third person as commented in the text. The roots of the Personal Pronouns occur with another partial in most languages, Kapau -i, Menya -i or -e, Yagwoia and Ampale -ka or -kwa, Baruya -mɨ, Simbari -wɨ, Kawacha parallels Menya, Kamasa -ko. Thus in all Angan languages, except Ivori, nɨ means *I*. Kapau yaai *we two* is cognate with ye of Menya, Kawacha and Kamasa and probably cognate with Angaataha ya(-) and Ankave yɨ(-), though these two appear to have noun class morphemes. Yagwoia nankwali is cognate with Baruya naarɨmɨ and Simbari naawɨ. Kapau nai is cognate with Menya ne, Yagwoia nenkwa, Baruya nemɨ, Simbari neno, Kawacha nemaka, Kamasa newako and probably cognate with Ankave none, Ivori tonaai, Lohiki naaitone and Angaataha nya'ɨ. Ampale appears to reverse the forms of first person dual and plural (compare Yagwoia). Kapau nti *you* is close to Lohiki ndɨ and cognate with Menya and Kawacha si, Yagwoia sika, and Kamasa siko. Baruya gɨmɨ *you* is cognate with Simbari gɨwɨ, Ampale kɨka and Angaataha kɨnyɨ. Menya, Yagwoia and Kamasa have qai *you two* which is probably cognate with Kapau qi, Baruya kɨrɨmɨ, Simbari kɨwɨ. Ampale zika *you two* is cognate with Kawacha si and Angaataha sa(-) and also probably with Kapau qi. Kapau hai *you all* is cognate with Menya he, Yagwoia helka, and through Yagwoia with Baruya sarɨmɨ, Ampale zekwa and Angaataha sa'ɨ. Kapau qai (third person singular) is cognate with Baruya gamɨ and Ampale kaaka. The evidence is not established for the other languages. Kapau qui *they* is cognate with Menya qui and Baruya kumɨ.

Case

Subject case is unmarked in the four languages analysed and probably Menya. Object and Indirect Object are -'i Kapau, -i Menya, -yɨ(no) Baruya and -i Angaataha, but Ampale does not correspond. Reference in Kapau is -'na (human reference), -na(no) in Baruya and -'na Ampale. Location *at* is -u in Kapau and -wɨ(no) *to, at* in Baruya. Baruya -ba(no) *at, to* is very close to Ampale -pa *at*. Origin or Source in Kapau is -ntaa *from*, in Baruya is daa'nyɨ, and in Ampale -ntaa'ne. Accompaniment in Baruya is -zɨ(no) in Ampale is -'nsi and in Angaataha -isa. Instrument is marked by the same morpheme as Accompaniment in Baruya and Ampale, but not in Angaataha. The possessor morpheme occurring with nouns is -'iya in Kapau

and -iyaqa in Menya. In Baruya, possession is marked by -yɨ-re (indirect object)-possessor and the first morpheme agrees with the first part of the Kapau possessor morpheme.

Equatives

Indicative equatives correspond a little. Kapau ti is similar to Baruya feminine equative clitic -sɨ, Menya -i is similar to the Baruya basic form -yɨ(ro) and somewhat like Angaataha -e. The Contradictive in Kapau, maa, is similar to Angaataha maa'e (negative) and Ampale -'maa(ha) and shows some correspondence to Baruya mi(ko). The Interrogative in Kapau, taa, is similar to Baruya daa(ko) and Ampale -taa(ha). For Dubitative there are similarities in Baruya dɨngɨ(ko) (also dɨqa(ko)). Ampale -tɨkena and Angaataha -ntɨ'o.

Personalizing Clitics

The masculine morpheme in Kapau -o or -qo is -wu Menya, -hwa Ampale and -'o Angaataha. Another masculine morpheme in Baruya -wa occurs with some modifier roots as well as the regular masculine morpheme -lo. In Kapau -n means *I* and corresponds to -nyo Baruya, -'ni Ampale and -nɨnɨ Angaataha. Menya -ye *we two* is close to Ampale -yaa'i and may correspond with Kapau -aai. Kapau -nai *we* is close to Menya -ne, Baruya -naawo, Ampale naa'ni, though Angaataha does not appear to correspond. Menya -k *you* is close to Baruya -gɨ(no) and perhaps related to Angaataha -ngɨ and even Ampale -si (see feminine -ki). Kapau -aangui *you two* is similar to Menya -(qw)aanqw and shows a relationship to Ampale -aahusi and thus to Angaataha -aa'ɨ. Kapau -hen *you all* is close to Menya -en; Ampale -aasi is close to Angaataha -aatɨ. Third person in Kapau is quite close to Menya and Ampale. Kapau -qo *he* is similar to Yagwoia -qwa and Angaataha -'o. Yagwoia -qwa-laaqwu *they two* seems to correspond to Kapau and the others. The feminine morpheme in Kapau is -i (singular and plural) and -s (dual), and in Menya and Ampale -i (singular) and -ava (dual and plural). The Baruya masculine and feminine morphemes change for person, but the singular forms -i (masculine) and -' (feminine) which is derived from -wo are the reverse of the other languages. Perhaps Yagwoia will reveal structures which indicate the process of c ange.

Voice Suffixes

Reflexive voice is -n in Kapau, Baruya, Ampale, Angaataha.
Causative voice is -q in Baruya and -k in Ampale.

Mood

The possible indicative mood prefixes in Kapau qa- and na-, appear to be a- in Menya and ka-, na- or unmarked in Angaataha. Negative mood prefix is maa- in Kapau and Angaataha and ma- in Baruya and Ampale. Interrogative mood prefix is ta- in Kapau, da- in Baruya, ra- in Ampale. Interrogative is manifested by a suffix in Angaataha. Dubitative mood prefix is daqa- in Baruya and ka- in Ampale. Dubitative is a particle in Kapau and a suffix in Angaataha.

Indirect Object Prefixes

In all languages studied in depth third person has only one form regardless of number. This form is u- or w- in all languages. First person singular is n- in Kapau, Ampale and Angaataha and nyɨ- in Baruya. First person dual corresponds in Kapau and Ampale. First person plural is similar in Kapau, Baruya and Ampale. Second person singular corresponds in all languages, Kapau being most divergent. Second person dual and plural are the same and correspond between Ampale and Angaataha.

Tense-Aspect

The following tense suffixes correspond:

Kapau	-' (present active)	Menya	-ɨq (active or present)
	-na (immediate future)		-ɨn (immediate future)
	-' (regular past)		-ik-ɨq (regular past)
	-ang (distant past)		-aang (distant past)
Kapau	-mang (present complete)	Baruya	-man-ɨg (incomplete)
	-ng (present stative)		-ɨg (stative)
	-ta (future)		-da or -de (future)
(?)	-nhe (subjunctive)		-dɨko (subjunctive)
Kapau	-na (immediate future)	Ampale	-na or -ta (near future)
	-nhe (subjunctive)		-ne (subjunctive)
Kapau	-ta (future)	Angaataha	-ta (future)
	-mang (present complete)		-ma (complete aspect)
(?)	-atong (present durative)		-oaatɨ (continuous aspect)
Ampale	-ta or ra (stative?)	Angaataha	-tɨ (stative?)

Subject Suffixes

Those of Menya present are very similar to the Kapau (n) series, which occurs with present tenses. The doubtful instances are Menya -we and Kapau -o *we two*, and Menya -in and Kapau -i *you two, they two.* Both are acceptable changes. Those of Menya future are the same as Kapau (m) 1 series for singular number and first person plural. Those of Menya past have many similarities to Kapau (a) 3 and (a) 2 series. This agrees with the lexical comparison.

Those subject suffixes of Baruya complete and incomplete, especially in shortened forms, are very close to Kapau (n) series, except for third person singular. Those of Baruya desiderative for *I, he,* and *we* are very similar to Kapau (m) 1 series. There is a little similarity between those of Baruya regular past and Kapau (a) 2 series, and between Baruya future dependent and Kapau (m) 2 series.

There are some similarities between Ampale basic subject suffixes and Kapau (n) series, between those of Ampale imperative and Kapau (m) 1 series, compare also Ampale subjunctive; and between Ampale different subject non-future and Kapau (n) 2 series.

No connection between Angaataha and Kapau subject suffixes were recognised.

Baruya desiderative subject suffixes, in most forms, are similar to Menya future. Baruya complete and incomplete in many forms are similar to Menya present. Some forms of Baruya regular past are similar to Menya past. There are more resemblances with Menya than with Kapau. This agrees with geographical distance, but conflicts with the present lexical evidence.

Half the Baruya complete subject suffixes are similar to Ampale basic, and half the Baruya desiderative are similar to Ampale imperative. Some forms of Baruya Subjunctive are similar to those of Ampale.

Baruya complete subject suffix for *you all, they,* may compare with Angaataha imperfect. Perhaps Baruya dependent future -o *he* compares with Angaataha simultaneous future *he,* -oni.

The meaning has changed but Ampale different subject sequence suffixes -ina *you* and -i *he, you two, they two* compare with Angaataha different subject simultaneous suffixes -ini *you* and -i *he, you two, they two.*

2.16. Neighbouring Languages

Seventeen languages belonging to several groups border on the Angan family. These can be seen on the maps (I and II), and further information is available in the alphabetical list of all language names. The three Eleman languages used for comparison were chosen on the advice of H.A. Brown. The two Austronesian languages in the Morobe District belonging to different families were chosen on the advice of B.A. Hooley, S.I.L.

Kenati, Owena and **Kovio** are not well known so notes are given here. The **Kenati** people number 536 and live downstream from Wonenara. Stories from the **Kenati** and **Baruya** state they are descendents of **Baruya** and **Fore** (or **Gimi**) people. They belong culturally to the East New Guinea Highlands people; for example, they have long hair and practise nose bleeding. **Kenati** has the following cognate percentages (170 words): with **Gimi** 19%, **Fore** 17%, **Owena** 19%, **Awa** 12%, **Tairora** 14% and **Waffa** 12%. In the 100 list **Owena** was 21% and **Tairora** 12%, the rest remained the same.

The **Owena** people number 334 and live in two villages, Owena and Waisara, between the **Awa** and **Tairora** languages along the north side of the Aziana-Lamari divide. This author's preliminary survey (170 words) recorded the following cognate percentages: with **Gimi** 18%, **Fore** 16%, **Kenati** 19%, **Awa** 30%, **Tairora** 19% and **Waffa** 17%. In the Swadesh 100 list percentages usually rose 2%, **Awa** remained the same, **Tairora** was 26% and **Waffa** was 21%.

The **Kovio** people live in the villages of Urulau and Okavai, Gulf District, and there are 205 speakers. Their land extends over the old village sites of Kapui, Kopo, Sisiana and Inaufunga in the Central District. **Kovio** is considered one of the three dialects of **Mekeo**, an Austronesian language. Andrew Taylor (BFBS personal communication) gives a percentage of 75% with **West Mekeo** and 71% with **East Mekeo**. Andrew Pawley, (Auckland University) and others are preparing a paper tentatively entitled 'Origins of the Austronesian Languages of Central Papua'.

2.161. Lexical Relationships

The highest cognate percentages of each of the 17 neighbouring languages with any Angan language will be given here.

The **Gimi** language shows 5% with **Angaataha**; **Fore** 5% with **Kapau, Yagwoia, Baruya, Ampale** and **Angaataha**. The **Kenati** language shows 6% with **Ampale** and **Angaataha**, 5% with 2 others and 4% with **Baruya**. The **Awa** language shows 5% with **Angaataha**; **Tairora** 4% with **Kapau, Menya, Ampale** and **Angaataha**; **Waffa** 4% with **Kapau, Menya, Yagwoia, Baruya, Ampale** and **Angaataha**. **Owena** shows 3% with **Ivori, Lohiki** and **Angaataha**. In the 100 list **Fore, Awa, Tairora** and **Waffa** rose 1%, **Kenati** fell 1% and the other 2 remained the same with the above Angan languages.

The Maralinan language shows a relationship of 1% with Kapau as well as many other Angan languages. Taiak shows 1% with Kapau, Menya, Ampale and Ivori. Kovio shows 2% with Ivori and 1% with the rest.

The Biangai language shows a cognate percentage of 4% with Kapau and Ampale; Weli shows 3% with Menya, Baruya, Simbari and Ampale; Kunimaipa shows 4% with Ampale. In the 100 list the only change was Weli to 4%.

The Toaripi language shows cognates of 1% with Kawacha and Kamasa; Opau shows no relationship; and Ahiave shows 1% with Kapau, Menya and Angaataha. In the 100 list no relationship is shown.

The Pawaia language shows 3% cognates with Baruya and Kawacha. In the 100 list Kawacha is 4% with Pawaia.

The lexical items which are cognate in most Angan languages and also cognate in other languages will now be mentioned. The stem for *ear* in Fore is ge and 'eta in Gimi. The Fore g and Gimi glottal stop is a common sound shift, so these are plainly cognate. The Kapau word is qata *ear*, glottal stop and q being a regular sound shift. The Gimi syllable ta may be a morpheme, but this is not established; so the Gimi and Kapau roots are apparently cognate and hence cognate with the Fore root. The verb root *eat* is n, which is cognate with East New Guinea Highlands languages and the Kunimaipan languages. In many languages *drink* is literally *water eat*. The verb root *speak* is t, d or r in Angan languages and is ti in Tairora. The verb root for *sleep* in Fore is wai and in Kapau we and in Baruya war. Another widespread cognate is the pronoun *I*. Gimi and Biangai have ne, most of the East New Guinea Highlands and all the Kunimaipan languages are cognate with most Angan languages which are nɨ or ni *I*. The Kenati root, for *brother* is taa, exactly the same as Kapau and all Angan languages are cognate. The Kenati root for *sister* is naano, Kapau is naan, and most Angan languages are also cognate. Fore *pig* is yagaa, Kapau is yaaqoe'a and five Angan languages are cognate with the Kapau root. Tairora *taro* is sara or kara, Kapau qaawa and Baruya kaata, where the final Baruya syllable is a noun class morpheme. Gimi *sweet potato* is isapa and the nearest Angan language is Ampale sapaaya. Baruya is wapaaya and Kapau is hope'a *sweet potato!* These last three items may be borrowings.

2.162. Phonological and Grammatical Relationships

The following comparisons are written so that Angan languages may be readily compared with typological features of East New Guinea Highlands languages (called Highland languages below), as given in Wurm (1964:80-2).

Like Highland languages, Angan languages have complex supra-segmental systems, usually a combination of pitch and stress. Unlike Highland languages, syllables are complex and initial consonant clusters are common. Prenasalized stops are common in Highland languages; however, in Angan they have been established only in **Baruya**, though the closely related **Simbari** may have them also. Alveolar flap (Wurm's apical flap) is common in Highland languages; however, it does not occur in the three largest Angan languages: **Kapau**, **Menya** and **Yagwoia**, though **Yagwoia** does have a lateral (unflapped). As in Highland languages there are few fricative phonemes. There is only one flat fricative in some Angan languages and the others have none. Most languages have one grooved fricative or affricative: **Baruya**, **Simbari** and **Kapau** have none and **Menya** has two. One dialect of **Ampale** has three and another dialect has two. The vowels usually number seven and Highland languages have five or six. **Ampale** has three front, three central and one back vowel. The other languages have two front, three central and two back vowels.

Similarly to the Highland languages the so-called medial verbs in the Angan languages have different sets of forms when the subject of a following verb is the same and different sets when the subject is different. These verbs often show a rough distinction of tense into future and non-future. The kinds of relationship between a medial verb and a following verb often include sequence and simultaneous actions. Like Highland languages, dual number occurs in all kinds of verbs and also in the personal pronouns. As in Highland languages, usually there is only one subject marker which denotes the second and third person dual subjects, and one the second and third person plural subjects with all kinds of verbs, see Appendices. As in Highland languages, the Angan verbs are quite complex and usually have more suffixes then prefixes. Usually the verb is readily segmented once the morphophonemic rules are known, though some fused suffixes occur. Similar to the Highland languages, the negative is a prefix in **Baruya**, but may be a prefix or a suffix, or a final particle depending on the tense of the verb in other Angan languages. The negative prefix is often **ma-** or **maa-**. All Angan languages have a division into masculine and feminine. **Baruya** and **Angaataha** and possibly other languages have complex gender or noun class systems. The East New Guinea Highlands languages do not have gender and class systems. The Kunimaipan languages do have complex systems of noun class markers, though usually these are separate words. These markers also occur with included clauses. Angan languages usually have obligatory prefixes for possession

with kinship terms, but never with body parts. The Highland languages usually have obligatory possessive prefixes for kinship terms and body parts. The Kunimaipan languages do not have possessive prefixes with these terms.

The structure of a **Fore** verb as given in Wurm (1964:82) includes negation, object, stem, aspect/tense, actor, mood and is therefore very close to the structure of some verbs in Angan languages. The final mood category in **Fore** is very similar to **Angaataha** where mood morphemes are **-e** indicative and **-o** interrogative. Fore is the same for both moods (see Scott 1968:55).

2.17. Conclusions

In this paper information and examples of Angan languages were presented. It is hoped that this will be a stimulus and help to those working in these difficult languages. The comparativist should be able to check the sounds and grammar for himself and evaluate the suggestions made here. It is hoped that more Angan languages will be studied in the future and that Dr Fischer's work on **Kawacha** and **Kamasa** will soon become available. The Katsiong languages offer excellant scope for study of multilingualism, and contact of languages.

Some Angan languages pair together: **Kapau** is very similar to **Menya**, **Baruya** to **Simbari** and **Ivori** to **Lohiki**. **Kapau** has fairly high percentages with all Angan languages.

Angaataha is tentatively placed within the family level, but further work will either establish it there or place it as a family of its own. By being less conservative a cognate figure of 30% was made with **Kapau**.

It is expected that some languages will have higher cognate percentages after further study. **Menya** will rise a little, **Angaataha** more, and **Kawacha, Kamasa, Ankave, Ivori** and **Lohiki** most. Generally speaking, **Ampale** or **Yagwoia** is the link between **Kapau** and **Baruya-Simbari**. **Menya** or **Yagwoia** is the link between **Kapau** and **Kawacha-Kamasa-Ampale**. **Ankave** is the link between **Kapau** and **Ivori-Lohiki**.

More work n **Menya** and **Yagwoia** should relate the New Guinea Angan languages even more while additional work on the Gulf Angan languages will undoubtedly reveal similarities between them. Following this **Ankave** should then link the Gulf languages closely to the other Angan languages.

The Angan languages are distantly related by cognates to the East New Guinea Highlands languages and the Kunimaipan languages. There is a somewhat closer relationship through grammar and also some through phonology.

APPENDIX A

Kukukuku and Angan

No one is definitely sure of the origin of the term Kukukuku or why it is resented by those so designated. Simpson (1953:8) states that the term was given by Motuan traders. He then (p.10) says that the name comes from **kokokoko**, the Motu word for the cassowary. He links it with the cassowary bones worn by most Angan people at their waist. Sinclair (1966: 7), also gives this explanation. Others have linked it with the cassowary feather head band. Capell (1962:139), says "...Kukukuku ... being really a somewhat insulting Motu apellation for the bush people in general." Zimmer (1969:85, but referring to 1925) says: "...Kukukukus, which is a scornful term meaning bush natives." Hides (1935) says, "It is most probably derived from the Motuan word Kukuku, or the Koitapuan word Kuku, both derogatory terms." Others suggest that the Kukukuku language may have a lot of k's in it, and the name was invented in a mocking description of the people - "those peasants who talk like kukukukukuku." This is likely only conjecture, but Kapau does have a lot of k's. Souter (1964: 98) suggests from unknown sources that the word "was invented by coastal people in imitation of the outlandish languages spoken by little bowmen ..." H.A. Brown (personal communication) thinks that Kukukuku means *bushman* in some coastal language.

See Fisher (1968:25-29) for a good discussion of the term Kukukuku. On page 34 he states there is no other term known by the people and acceptable to them. The **Yaguya** do not object to Kukukuku.

Hides says that the Moviavi people (Toaripi) call Anga people Iarima and I have noted that the Orokolo and Vailala people call them Maihiri. Therefore the term was probably introduced through Hiri Motu. I imagine it was originally pronounced **kukukuku** and not **kukakuka**.

The term Kukukuku has been believed to be an offensive term in one of the Angan languages, perhaps meaning homosexualist. I consider that this has not been established. The most likely explanation is that they have been called "so-and-so Kukukuku" for so long that they hate the term.

Hides states that the term was first applied to the "original nomads of the hills and lowlands between the Aravi (Ailavi or Aiv Avi) and Vailala." Besides other groups who are definitely Anga people he says the term was also applied to tribes of semi-nomadic nature on the upper Purari River, people who must be Pawaians. Christian (1932) appears to

call Pawaians "...Menada Kukukuku." These are the only references that I have found where non-Anga people are called Kukukuku. All word lists, labelled Kukukuku, from the Annual Reports are Angan.

The term Anga was chosen after a fruitless search to find a name that all the people would accept. Only **Angaataha** has a name for all the people speaking that language. I do not regret the choice of the term Anga, though semi-foreign names are beset with problems. Anga, pronounced **aanga** in most languages, is the term meaning *house* or *village* in all Angan languages. My reconstruction of this term is ***aanga**. The variation in pronunciation to **aangga** is caused by the addition of a morpheme **-ka** (noun class marker). The only Angan name for a whole language, **Angaataha**, is based on the root **anga**. The **Baruya** use the term in compounds to denote 'local' things in contrast to foreigh things. The few people from other areas who have heard the new term reacted favourably to it.

Dr D.C. Gajdusek of the National Institutes of Health U.S.A. and those working with him have also adopted the term Anga. Ivan Mbaginta'o, a a protégé of Dr Gajdusek, has written a paper (Mbaginta'o 1971) on his own Simbari people entitled "*The Anga Initiations*".

Gajdusek and Fetchko (1971) is a bibliography of the Anga people and their languages.

Note, however, the Kovio term **ango** for *ground* may also be applied to a section of a village. Dialects of Atzera of the Markham Valley have a similar word for *house* ranging from **ungar** (Amari village), **ongar** (Onga village) and **angar** (Sifu village). This weakens my use of Anga, but other Austronesian languages are not similar so I suggest the continuing use of Anga to replace Kukukuku.

APPENDIX B

Kapau Subject Person Suffixes

	(n)	(n)2	(m)1	(m)2	(a)1	(a)2	(a)3	(mao)
1s	-a	-a	-m	-m	-a	-a	-qa	-m
2s	-n	-i	-t	-n	-a	-knga	-a	-a
3s	-i	-i	-a	-a	-a	-a	-qa	-o
1d	-o	-o	-i..o	-aa	-o	-o	-qo	-i
2 3d	-i	-i	-hi	-hi	-iya	-iya	-iya	-hi
1p	-o	-o	-aa..o	-aa	-o	-o	-qo	-oaa
2 3p	-a	-a	-hu	-hu	-uwa	-uwa	-uwa	-hu
Number of contrasts	(4)	(3)	(7)	(6)	(4)	(5)	(5)	(7)

APPENDIX C

Menya Subject Suffixes

	Near Future	Present	Near Past
1s	-ɨm	-a	-aqe or -e
2s	-ɨt (ɨn)	-ɨn	-ɨngi
3s	-a(n)	-i	-aqe
1d	-e(n)	-we	-we
2 3d	-ɨji(n)	-in	-iyi
1p	-aa(n)	-wo	-oqwe
2 3p	-ɨp (ɨn)	-a	-uwi
	(7)	(6)	(7)

APPENDIX D

Baruya Subject Person Suffixes

	Com-plete	Incom-plete	Near Past	Regular Past	Far Past	Desider-ative
I	-ano	-eno	-eno	-eno	-yaano	-ɨmo
you	-aano	-ɨno	-ɨno	-ɨno	-yeno	-no/-ko/-yo
he	-ako	-ɨko	-ɨko	-ako	-yaako	-ano
we two	-olo	-olo	-olo	-olo	-yaawolo	-ako
you two	-aalo	-ɨlo	-ɨlo	-ɨlo	-yelo	-yɨlo
they two	-aalo	-ɨlo	-ɨlo	-ɨlo	-yelo	-yɨko
we	-ono	-ono	-ono	-ono	-yaawono	-aano
you all	-aawo	-awo	-aawo	-ewo	-yaawo	-yɨlo
they	-aawo	-awo	-aawo	-ewo	-yaawo	-ɨpɨko
	(7)	(7)	(7)	(7)	(7)	(8)

(Appendix D cont'd)

	Habitual	Subjunctive	Dep Desid.	Dep. Future	Simultan. Non-Future
I	-ɨno	-ɨwɨ(no)	-ɨmo	-mu	(minus w)
you	-ɨno	-ɨno	-ɨmo	-gɨ	-gɨ
he	-ano	-ano	-ano	-o	-(sɨ)
we two	-ako	-ako	-ako	-kwoiqɨ	-kwoiqɨ
you two	-iko	-yɨko	-yɨko	-kɨ	-kɨ
they two	-iko	-yɨko	-yɨko	-kɨ	-kɨ
we	-aano	-aano	-aano	-aa	-o
you all	-ɨvɨko	-ɨpɨ(no)	-ɨpɨko	-pɨ	-pɨ
they	-ɨvɨko	-ɨpɨ(no)	-ɨpɨko	-pɨ	-pɨ
	(6)	(7)	(6)	(7)	(7)

APPENDIX E

Ampale Subject Suffixes

	Basic	Imperative	Prohibitive	Subjunctive	Subjunctive Conditional
I	-ena	-uma	-me	-m	-i'mt-ente-zi
you	-ina	-ya	-ta	-t	-ente-zi
he	-aha	-ana	-ra	-a	-ente-zi
we two	-hwaaya	-aaha	-ra	-aah	-entaa-zi
you two	-ziya	-nya	-zira	-zit	-ente-zi
they two	-ziya	-iya	-zira	-zit	-ente-zi
we	-hwana	-aana	-ra	-aa	-entaa-zi
you all	-ava	-mna	-ta	-vit	-ivit-ente-zi
they all	-ava	-uve	-ta	-vit	-ivit-ente-zi
Number of Contrasts	(7)	(9)	(4)	(7)	(4)

(Appendix E cont'd)

	Different Subject Non-future	Same Subject Non-future	Dependent Future	Co-ordinate Future
I	-a	-ansi	-u'ma	-ɨme
you	-ina	-ansi	-ahazi	-ɨza
he	-i	-anta	-uhwazi	-aza
we two	-uhwaaya	-antaae	-uhwaazi	-aaza
you two	-i	-ansi	-ahazɨzi	-ɨza
they two	-i	-ansi	-ahazɨzi	-ɨza
we	-uhwane	-antane	-uhwaazi	-aaza
you all	-avi	-antɨvɨ	-usi	-ɨvɨsaza
they	-avi	-antɨvɨ	-usi	-ɨvɨsaza
Number of Contrasts	(6)	(5)	(6)	(5)

APPENDIX F

Angaataha Independent Subject Person Suffixes

Imperfect	Past	Future	Desiderative	Imperative
-t-aa-y-o	-o	-t-o	-tan-t-iy-o	-taano
-p-a-i-se	-i-se	-ta-i-se	-taa-p-ai-se	-pe or -me
-t-a-i-se	-i-se	-ta-i-se	-tan-t-ai-se	-ne
-'-aa-y-o	-o	-t-o	-tɨ'aaw-iy-o	-tɨ'aawo
-m-a-i-se	-i-se	-ta-i-se	-taatɨ-m-ai-se	-pɨse or -mɨse
-m-a-i-se	-i-se	-ta-i-se	-taatɨ-m-ai-se	-pɨse or -mɨse
-'-aa-y-o	-o	-t-o	-tɨ'aaw-iy-o	-tɨ'aawo
-w-aa-y-opo	-opo	-t-aapo	-taatɨ-w-iy-opo	-pɨse or -wɨse
-w-aa-y-opo	-opo	-t-aapo	-taatɨ-w-iy-opo	-pɨse or -wɨse

(Appendix F cont'd)

Simultaneous Non-future		Simultaneous Future		Basic Medial	Loose Antecedent	Continuative
-oni	-'i	-ani	-'i	-ti	-t-a-ti	-mpi-ti
-ini	-'i	-ami	-'i	-pi	-p-a-pi	-mpi-pi
-i or -si	-'i	-oni	-'i	-ti	-t-a-ti	-insa-ti
-oni	-'i	-ai	-'i	-'i	-'-a-wi	-insa-'i
-i or -si	-'i	-ai	-'i	-Mi	-M-a-mi	-mpi-mi
-i or -si	-'i	-ai	-'i	-Mi	-M-a-mi	-mpi-mi
-oni	-'i	-ai	-'i	-waa(ti)	-waat-a-ti	-ins-aati
-awi	-'i	-ai	-'i	-Wi	-W-a-wi	-mpi-wi
-awi	-'i	-ai	-'i	-Wi	-W-a-wi	-mpi-wi
(4)		(4)		(6)	(6)	(6)

Secondary Imperfect	Contra-result	Contrary Fact
-t-aa-ti	-ti-pani	-taani
-p-aa-pi	-aini	-aini
-t-aa-ti	-taisi	-tai
-'-aa-wi	-'i-pani	-taani
-m-aa-mi	-taisi	-tai
-m-aa-mi	-taisi	-tai
-'-aa-wi	-(w)aani-pani	-taani
-w-aa-wi	-taawi	-taawi
-w-aa-wi	-taawi	-taawi
(6)	(6)	(4)

APPENDIX G

Hans Fischer's book *Negwa* 1968

This book is mainly concerned with the anthropology of the **Yagwoia** people, but the author also gives some information about languages. The translation from German is by Edmund Fabian, S.I.L. I received the book after the first draft of this chapter was written.

Notes on the phonology of **Yaguya (Yagwoia)**, for the purposes of the book, are given on pages 21-22. There are many **Yaguya** words throughout the book. Fischer did not record verb forms, which were complex.

There is a table on 16 words on page 33. This table contains lists of the **Yaguya** dialect of **Yagwoia**, 2 lists from the **Aiwomba** dialect and one from the **Wojokeso** dialect of **Ampale**, the **Kawacha** language, the **Kamasa** language, the **Angaataha** language, the **Yamnaqanja** dialect of **Menya**, the **Menya** language and the **Kapau** language. There is another table of a further 50 words on page 42-43 of the **Yaguya, Kawacha** and **Ampale** languages.

On page 32 Fischer states that he collected a word list of 212 items plus words for objects of the material culture in the **Kawacha** language. However aside from words denoting the material culture, he recorded only a few words in the **Angaataha, Kamasa** and **Menya** languages.

On page 34 he comments on an earlier map of mine where I had incorrectly shown **Aiwomba** and **Wajakeso** as separate languages. He also gives percentages between different dialects and languages. I consider these figures to be low for the dialect of **Ampale** (78%) and high between other languages, except **Yaguya** and **Wojokeso** (60%). Probably the mean between his and my figures are closer to being the correct ones for the languages. His figures are: **Ampale** (Aiwomba) - **Kawacha** 71%, **Ampale - Yaguya** 73%, **Yaguya - Kawacha** 70%, and **Kawacha - Ampale** (**Wojokeso**) 68%. The people speaking the **Ampale** dialects understand each other quite well, but this is not the case between any of the languages. He also mentions that **Angaataha**, (his **Natsa**), is quite different from the other languages.

According to Fischer (1968:36) many of the Talacha clan of the **Kawacha** were absorbed by intermarriage and adoption (?) by the southern group of the **Yaguya**. There were 120 people at 'Katsiong' at the census in May 1971. Fischer (1968:37) says that in 1965 Katsiong was divided into Manoga and Kazavarepa to the south west. I was given the name Karunja for the first hamlet. Pilots flying over the area report three hamlets in the area now. Fischer says that only 10 men were left of the whole

Kawacha tribe. On this basis I estimate approximately 30 people in Kawacha. Fischer says there were then only 21 Yagwoia men, making a total of perhaps 42 people. These totals are indefinite as the wives could belong to different languages. Fischer says one Aiwomba (Ampale) man also lived at Katsiong. The rest of the people, 15 families, lived in Kazavarepa. One Angaataha man said 5-6 men of the Awaawaan(ise) clan lived at Katsiong, perhaps making 15 Angattaha people. I was given the names of 6 Kamasa men and so estimate 18 people. The remainder are Menya people, perhaps 12 people.

Dr Fischer doubtless has full particulars of all the Katsiong people and to which groups they belong.

As he used the Yagwoia names for the different groups the following table shows the various names used in my spelling and his.

	Alternate Language Names used by Fischer
Yagwoia	Jeghuje, (Jaola)
Kawacha	Katje
Kamasa	Inetje, Kwamogh
Angaataha	Natsa
Ampale	Banir (tribes Hjaltje, Hilemije, Khanggotje, Wotjemije)
Menya	Jamnaghantje, Kwatala, Aghadghe (tribe)

APPENDIX H

LEGEND

In this section are listed alphabetically all languages mentioned in the paper. The language family for each language is given in parentheses after the language name. Any alternate names and their sources are then given.

AHIAVE (Eleman) **Vailala** (Capell 1962); **Haura** (Franklin 1970) **Haura** is the Subtribe in the south, **Ahiave**, a subtribe in the north.

AMPALE (**Angan**) **Banir** (Map 7, Capell 1962); **Sesere** (Capell 1962); **Wajokeso-Ampale** (Lloyd & Healey 1970); **Wojokeso** (alternate spelling); **Aiwomba** (central dialect); **Yaponya** (south dialect); various tribe names (Fischer 1968).

ANGAATAHA (**Angan**) **Langimar** (Hooley & McElhanon 1970, Lloyd & Healey 1970); **Natsa** (Fischer 1968).

ANKAVE (**Angan**) **Yeripa** (Lloyd & Healey 1970, Franklin 1968); **Kwingi** (by **Kapau** speakers).

AWA (East family of East New Guinea Highlands Stock).

BARUYA (**Angan**) **Barua** (Capell 1962); **Wantakia** (Capell 1962); **Barua-Wantakia** (Lloyd & Healey 1970); **Yipma** (by **Baruya** speakers); several dialects (see 2.6.).

BIANGAI (**Kunimaipan**).

FORE (East Central family of East New Guinea Highlands Stock).

GIMI (East Central family of East New Guinea Highlands Stock).

IVORI (**Angan**) **Agama** or **Yarepa** (Franklin 1970); **Tigwaata** (by the **Kapau** speakers); also **Tewe** or **Dewe**.

KAMASA (**Angan**) **Chimbi**; **Inecha** or **Kwamaqa** (Fischer 1968).

KAPAU (**Angan**) **Kamia** (Gulf District); **Hamtai** (New Tribes Mission); **Kaviropi** (Capell 1962); **Kukukuku** (Various Annual Reports).

KAWACHA (**Angan**) **Kacha** by **Yagwoia** speakers (Fischer 1968).

KENATI (**Azianan**) **Ganati** (Wurm 1964); **Asena** or **Aziana** (Government).

KOVIO (Central Papuan of Austronesian).

KUNIMAIPA (Kunimaipan).

LOHIKI (Angan) Maiheari (AR 1912-13); Maihiri (Zimmer 1969); Obi (Capell (1962); Haagoya (by the Kapau).

MARALINAN (Azeran) Watut (Capell 1962); Baboaf (Salzner 1960); Silisili (Hooley 1970).

MENYA (Angan) Menye (alternate spelling); various tribe names (Sinclair 1966 and Fischer 1968).

OPAU (Eleman).

OWENA (East Family of East New Guinea Highlands Stock); Waisera or Waisara (Wurm 1964).

PAWAIA (Pawaian).

SIMBARI (Angan).

TAIAK (Buangan) Taiek (Capell 1962); Katumene (Salzner 1960); Sambio (Hooley 1970).

TAIRORA (East Family of East New Guinea Highlands Stock).

TOARIPI (Eleman) Moaripi (Ray 1907); Lepu (Ray 1913-14); Motumotu (Chalmers 1897).

WAFFA (East Family of East New Guinea Highlands Stock).

WELI (Kunimaipan) Ono (Salzner 1960).

YAGWOIA (Angan) Menyamya (Capell 1962); Kwaplalim (Lutheran Mission); Yeghuye (Capell 1962); Yagoia or Yakoia (alternate spelling).

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1912-13 p.173 Vocabulary of Certain Languages of Gulf District, Ahiave, Kukukuku (**Lohiki**) and Keki Tapala.

1913-14 p.195 List of Kukukuku Words (Presumably **Kapau**)

1916-17 p.65 Tribes on Main Range West of Mount Albert Edward. Kuefa, Kunimipa, Biaru, Sini, Fuyuge, Kukukuku (**Kapau**)

1917-18 p.117 Kukukuku village A-sha-vi. Nepa Lakekama Goldfields (**Kapau**). Franklin (1968) incorrectly lists the Arabi R. as Oreba R.

1917-18 p.95a Kukukuku, village of Madinava (**Kapau**)

1917-18 p.95b Mai-hea-ri tribe, villages Karauwi, Papikava, Aroawa Hawoiu. (**Lohiki**)

Word Lists (mainly S.I.L. Survey Word List)

Ahiave (K. Franklin); Ampale (West & West, N. Bourne); Angaataha (R. Huisman); Ankave (R. Lloyd); Awa (A. & R. Loving); Baruya (J. & R. Lloyd); Biangai (M. & R. Dubert); Fore (G. Scott); Gimi (N. & S. McBride); Ivori (K. Franklin, R. Lloyd); Kamasa (R. Lloyd, D. West); Kapau (T. Palmer, J. Fitzgerald); Kawacha (R. Brett, R. Lloyd); Kenati (L. Dodd); Kovio (H. A. Brown); Kunimaipa (A. Pence, D. Bjorkman); Lohiki (A. Capell, K. Franklin, R. Lloyd); Maralinan (B. Hooley); Menya (J. Strelan, J. Lloyd); Opau (K. Franklin); Owena (L. Dodd, A. Vincent); Pawaia (D. Trefry, J. Cribb); Simbari (D. Best); Tairora (A. Vincent); Taiak (B. Hooley); Toaripi (H. A. Brown); Waffa (J. Hotz, M. Stringer); Weli (M. Boxwell); Yagwoia (R. Weier)

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