A COMPARATIVE STUDY OF KUMAN AND PAWAIAN

by

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LOCATION OF KUMAN AND PAWAIAN LANGUAGES
INTRODUCTION

Dr Stephen Wurm in a series of articles which he has written on the East New Guinea Highlands language phylum states that the Pawaian language of the Gulf and Eastern Highlands Districts is remotely related to it\(^1\). He has based his conclusion on a 3-5 per cent correspondence of Glotto-chronologic sames which he found when comparing Pawaian and languages of the Phylum. A comparison based on a Swadesh 100 word list. The purpose of this Thesis is to test out his conclusion by comparing Pawaian with Kuman, one of the languages of the Phylum. The comparison will be taken at all levels, from the phonologic to the syntactical, in an effort to see if the structural evidence corresponds with the lexical.

The studies will be based on six months language work in Kuman, and eighteen months work in Pawaian. Much ground was covered in the Kuman language through the help of Mr Willie Kunauna, an English speaking clerk from the Waile Council in the Chimbu Sub-district of the Eastern Highlands. 'A Kuman Grammar' by W. Bergmann of the Lutheran Mission was also helpful. 'A Kuman Language Course' by D. and J. Trefrey, was used considerably. The Pawaian material was mainly gained using the monolingual approach with members of the Walio clan of the Karimui Plateau acting as informants.

Kuman is the language spoken by the people of the Northern half of the Chimbu Sub-district in the Eastern Highlands District. There are approximately 65,000 speakers of this language. It is one of the languages of the Hagen-Wahgi-Jimi-Chimbu family.

Pawaian is spoken over a large tract of country by a relatively small population. Some of the speakers are yet to be censused, but it is estimated that their total number should be about 2,000. About 500 of them live in the Eastern Highlands and the rest are scattered along the Pio and Purari Rivers of the Gulf District.

The following map will show geographical relationship of the two languages. It will be noted that at least two languages separate them. Both of these languages are included in the Eastern Highlands language Phylum. In fact all the languages north of Pawaia belong to this phylum.
LEXICAL COMPARISON

The first step of the study will be to compare the items found on a Swadesh 100 word list to see what percentage of glotto-chronological sames are registered. Another 100 common words will also be compared. According to Swadesh's finding this second list should produce less glotto-chronological sames than the first one.

Comparison of Swadesh Word List in Kuman and Pawaian

<table>
<thead>
<tr>
<th>English</th>
<th>Pawaian</th>
<th>Kuman</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. all</td>
<td>neinana</td>
<td>munda</td>
</tr>
<tr>
<td>2. ashes</td>
<td>sidai</td>
<td>yegum</td>
</tr>
<tr>
<td>3. bark</td>
<td>in hŋj</td>
<td>endi gangi</td>
</tr>
<tr>
<td>4. belly</td>
<td>souma</td>
<td>deno</td>
</tr>
<tr>
<td>5. big</td>
<td>hŋj</td>
<td>kande</td>
</tr>
<tr>
<td>6. bird</td>
<td>deŋ</td>
<td>kua</td>
</tr>
<tr>
<td>7. bite</td>
<td>yawasŋ</td>
<td>suŋgua</td>
</tr>
<tr>
<td>8. black</td>
<td>obu</td>
<td>kama</td>
</tr>
<tr>
<td>9. blood</td>
<td>scni</td>
<td>boŋumai</td>
</tr>
<tr>
<td>10. breast</td>
<td>emi</td>
<td>amuno</td>
</tr>
<tr>
<td>11. burn</td>
<td>iŋiasŋ</td>
<td>gakŋkwa</td>
</tr>
<tr>
<td>12. claw</td>
<td>ogu</td>
<td>winagte</td>
</tr>
<tr>
<td>13. cloud</td>
<td>suŋa</td>
<td>kamku</td>
</tr>
<tr>
<td>14. cold</td>
<td>nimi</td>
<td>iŋ</td>
</tr>
<tr>
<td>15. come</td>
<td>peŋasu</td>
<td>ongu</td>
</tr>
<tr>
<td>16. die</td>
<td>ofasu</td>
<td>gokŋkua</td>
</tr>
<tr>
<td>17. dog</td>
<td>hŋ</td>
<td>akŋ</td>
</tr>
<tr>
<td>18. drink</td>
<td>hatisŋ</td>
<td>neŋgua</td>
</tr>
<tr>
<td>19. dry</td>
<td>sarasŋ</td>
<td>kugandungua</td>
</tr>
<tr>
<td>20. ear</td>
<td>nŋi</td>
<td>kunano</td>
</tr>
<tr>
<td>21. earth</td>
<td>so</td>
<td>magan</td>
</tr>
<tr>
<td>22. eat</td>
<td>hatisŋe</td>
<td>neŋgua</td>
</tr>
<tr>
<td>23. egg</td>
<td>yo</td>
<td>mugfo</td>
</tr>
<tr>
<td>24. eye</td>
<td>to</td>
<td>gumutino</td>
</tr>
<tr>
<td>25. fat</td>
<td>oŋa</td>
<td>wam</td>
</tr>
<tr>
<td>26. flesh</td>
<td>mi</td>
<td>miŋa</td>
</tr>
<tr>
<td>27. feather</td>
<td>yuli</td>
<td>iŋgo</td>
</tr>
<tr>
<td>28. fire</td>
<td>sia</td>
<td>donga</td>
</tr>
<tr>
<td>29. fish</td>
<td>waŋi</td>
<td>bagte</td>
</tr>
<tr>
<td>30. fly</td>
<td>aŋŋnasŋ</td>
<td>endongua</td>
</tr>
<tr>
<td>31. foot</td>
<td>hŋ</td>
<td>kati</td>
</tr>
<tr>
<td>32. full</td>
<td>hŋiasŋ</td>
<td>kaŋsgua</td>
</tr>
</tbody>
</table>
4

74. sit  ewenasye
75. skin  he1
76. sleep  oyetisyè
77. small  homi
78. smoke  yy
79. stand  yanbiasye
80. star  noy
81. stone  tobu
82. sun  q1
83. swim  onasyè
84. tail  tul
85. that  wa
86. this  a
87. thou  ono
88. tongue  hemina
89. tooth  su
90. tree  in
91. two  nau
92. walk  uyatisye
93. warm  howi
94. water  sa
95. we  nono
96. what  nodi
97. white  poi
98. who  mai
99. woman  oí
100. yellow  sewai

Comparison of another 100 Common Words

1. afterwards  yèi
2. angry  oranhyèsye
3. and  yobu
4. arrow  sq
5. back  bolu
6. bad  meèdi
7. bag  wo
8. bamboo  tabo
9. banana  yo
10. be hungry  siminisye
11. be sick  biliniasyè
12. bean  hokoya
13. beard  mimi

561.8x706.1
<table>
<thead>
<tr>
<th>56.</th>
<th>hole</th>
<th>hy</th>
<th>mauk*</th>
</tr>
</thead>
<tbody>
<tr>
<td>57.</td>
<td>house</td>
<td>hapol</td>
<td>nguk*</td>
</tr>
<tr>
<td>58.</td>
<td>hurt</td>
<td>susye</td>
<td>bok*</td>
</tr>
<tr>
<td>59.</td>
<td>interior</td>
<td>oli</td>
<td>bang*</td>
</tr>
<tr>
<td>60.</td>
<td>knife</td>
<td>hyeni</td>
<td>pik*</td>
</tr>
<tr>
<td>61.</td>
<td>leg</td>
<td>h*</td>
<td>kati</td>
</tr>
<tr>
<td>62.</td>
<td>light</td>
<td>sobali</td>
<td>endiwe*</td>
</tr>
<tr>
<td>63.</td>
<td>loose (v)</td>
<td>suazye</td>
<td>kondo</td>
</tr>
<tr>
<td>64.</td>
<td>lose</td>
<td>hominasye</td>
<td>embideungua</td>
</tr>
<tr>
<td>65.</td>
<td>milk</td>
<td>emi</td>
<td>amnig*</td>
</tr>
<tr>
<td>66.</td>
<td>morning</td>
<td>enau</td>
<td>tanjima kana</td>
</tr>
<tr>
<td>67.</td>
<td>mother</td>
<td>ena</td>
<td>mam</td>
</tr>
<tr>
<td>68.</td>
<td>near</td>
<td>hyenu</td>
<td>manjig*</td>
</tr>
<tr>
<td>69.</td>
<td>nut (pandanus)</td>
<td>egia</td>
<td>amuk*</td>
</tr>
<tr>
<td>70.</td>
<td>old</td>
<td>sgu</td>
<td>mambuno</td>
</tr>
<tr>
<td>71.</td>
<td>peel</td>
<td>senadi</td>
<td>paktsungua</td>
</tr>
<tr>
<td>72.</td>
<td>pig</td>
<td>ya</td>
<td>bug*</td>
</tr>
<tr>
<td>73.</td>
<td>pine tree</td>
<td>yul</td>
<td>yakubane</td>
</tr>
<tr>
<td>74.</td>
<td>plant</td>
<td>plasye</td>
<td>gok*kua</td>
</tr>
<tr>
<td>75.</td>
<td>pumpkin</td>
<td>inabol</td>
<td>oruwa</td>
</tr>
<tr>
<td>76.</td>
<td>rat</td>
<td>pai</td>
<td>dua</td>
</tr>
<tr>
<td>77.</td>
<td>rope (vine)</td>
<td>ibol</td>
<td>kun</td>
</tr>
<tr>
<td>78.</td>
<td>sister</td>
<td>mauwa</td>
<td>ambirino</td>
</tr>
<tr>
<td>79.</td>
<td>skirt</td>
<td>u</td>
<td>gag*</td>
</tr>
<tr>
<td>80.</td>
<td>soft</td>
<td>sonamu</td>
<td>wida</td>
</tr>
<tr>
<td>81.</td>
<td>snake</td>
<td>o</td>
<td>togi</td>
</tr>
<tr>
<td>82.</td>
<td>slow</td>
<td>toumu</td>
<td>wenak*</td>
</tr>
<tr>
<td>83.</td>
<td>split</td>
<td>pobali</td>
<td>eki*ri</td>
</tr>
<tr>
<td>84.</td>
<td>stay</td>
<td>ewinazye</td>
<td>mok*kua</td>
</tr>
<tr>
<td>85.</td>
<td>stop</td>
<td>wabasye</td>
<td>yomgua</td>
</tr>
<tr>
<td>86.</td>
<td>sugar cane</td>
<td>syai</td>
<td>bo</td>
</tr>
<tr>
<td>87.</td>
<td>sunshine</td>
<td>olsye</td>
<td>andesungua</td>
</tr>
<tr>
<td>88.</td>
<td>sweet potato</td>
<td>sali</td>
<td>kala</td>
</tr>
<tr>
<td>89.</td>
<td>talk</td>
<td>hye</td>
<td>kandi</td>
</tr>
<tr>
<td>90.</td>
<td>there</td>
<td>weni</td>
<td>sug*o</td>
</tr>
<tr>
<td>91.</td>
<td>tobacco</td>
<td>sogo</td>
<td>yir*im</td>
</tr>
<tr>
<td>92.</td>
<td>today</td>
<td>hgi</td>
<td>e*rim</td>
</tr>
<tr>
<td>93.</td>
<td>tomorrow</td>
<td>nei</td>
<td>tongima</td>
</tr>
<tr>
<td>94.</td>
<td>touch</td>
<td>yanai</td>
<td>akeungua</td>
</tr>
<tr>
<td>95.</td>
<td>trade</td>
<td>weda</td>
<td>topo</td>
</tr>
</tbody>
</table>

* Note: The table contains a mix of English words and their African equivalents. The equivalents are not standardized and may vary by region or dialect.
From these two lists we note that there are 8 per cent probable
glotto-chronologic sames in the Swadesh list and 6 per cent in the
second list. This would indicate that there is a distant relation­
ship between Pawaian and Kuman2. We will now compare the phono­
logical and grammatical structures of the two languages and will
conclude by summing up the differences and similarities thus found,
and see if they substantiate the findings of the Swadesh list.

PHONOLOGICAL COMPARISON

There are thirty-four phonetic segments involved in the combined
sound production of Kuman and Pawaian. Eight are vowel segments and
the rest are consonantal ones. The vowels will be considered first.

VOWELS

Of the eight vowel segments, seven are found in Kuman and six
in Pawaian. The seven Kuman segments make five phonemes, two front,
one central, and two back.

They are,

\[ i \quad u \]
\[ e \quad a \quad o \]

\[ /i/ \] and \[ /o/ \] each have two allophones.

\[ /i/ \]

\[ [i] \] in open syllables or preceding
velar stops.

\[ [i] \] elsewhere.

\[ /o/ \]

\[ [o] \] in fluctuation with \[ [o] \] in
word initial position.

\[ [o] \] in all positions.

In Pawaian each of the six segments are phonemes. One, \[ /o/ \] is only
rarely found.

They are,

\[ i \quad u \]
\[ e \quad a \quad o \]

Distribution of Vowel Segments

The following chart shows how the segments are distributed in the
two languages.
The interesting features that may be noticed from the chart are:
1. The high front vowel has a wider spread in Kuman than in Pawaian.
2. The mid front vowel is higher in Kuman than in Pawaian.
3. The mid back vowel of Kuman has conditioned variants in what is two vowels in Pawaian.

**CONSONANTS**

Kuman has fourteen consonant phonemes and Pawaian has ten. They are:

**Kuman**
- p  t  k
- b  d  g  s
- m  n  r  l  g$^4$
- w  y

**Pawaian**
- p  t  k  s  h
- m  n  l
- w  y

They are made up of twenty-six different segments. Twenty-one are used in Kuman, and eighteen in Pawaian. The following chart shows how they are distributed.
In considering the chart we notice that 15 of the segments occur in both languages, 8 in Kuman only, and 3 in Pawaian only. This is illustrated in the following way.

<table>
<thead>
<tr>
<th>Kuman only</th>
<th>Kuman and Pawaian</th>
<th>Pawaian only</th>
</tr>
</thead>
<tbody>
<tr>
<td>mb</td>
<td>ph</td>
<td>h</td>
</tr>
<tr>
<td>b</td>
<td>p</td>
<td>r</td>
</tr>
<tr>
<td>nd</td>
<td>th</td>
<td></td>
</tr>
<tr>
<td>t s</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td>n g</td>
<td>d</td>
<td></td>
</tr>
<tr>
<td>kj</td>
<td>kh</td>
<td></td>
</tr>
<tr>
<td>gs</td>
<td>k</td>
<td></td>
</tr>
<tr>
<td>l</td>
<td>g</td>
<td></td>
</tr>
</tbody>
</table>
Also from the first chart it can be noted that those segments which occur in both languages are distributed quite differently among the phonemes. /k/, /m/, /n/ and /ɣ/ are the only phonemes that have the same segments in both languages and even then the allophones of /k/ are distributed differently in the two systems. This information can also be charted for clarification.

### Kuman distribution

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>/p/</th>
</tr>
</thead>
<tbody>
<tr>
<td>[p^h] occurs initially,</td>
<td>occurs medially in fluctuation with [p].</td>
</tr>
<tr>
<td>[p] occurs medially in fluctuation with [p^h].</td>
<td></td>
</tr>
<tr>
<td>[b] occurs initially in fluctuation with [^{\text{mb}}].</td>
<td></td>
</tr>
<tr>
<td>[^{\text{mb}}] occurs initially in fluctuation with [b], occurs medially.</td>
<td></td>
</tr>
<tr>
<td>[\text{th}] occurs initially,</td>
<td>occurs medially in fluctuation with [\text{th}].</td>
</tr>
<tr>
<td>[\text{t}] occurs medially in fluctuation with [\text{th}].</td>
<td></td>
</tr>
</tbody>
</table>

### Pawaian distribution

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>/p/</th>
<th>[p^h] occurs initially in fluctuation with [p].</th>
</tr>
</thead>
<tbody>
<tr>
<td>[p] occurs initially in fluctuation with [p^h]</td>
<td>occurs medially in fluctuation with [b].</td>
<td></td>
</tr>
<tr>
<td>[b] occurs medially in fluctuation with [p].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[\text{th}] occurs initially in fluctuation with [t].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[t] occurs finally in fluctuation with [\text{th}], [d], and [\text{th}].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[\text{t}] occurs finally in fluctuation with [\text{th}], [d] and [\text{th}].</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
occurs medially in fluctuation with [t] and [ɾ],
occurs finally in fluctuation with [ɾ] [th] and [t].

[ɾ] occurs medially in fluctuation with [t] and [d],
occurs finally in fluctuation with [th] [t] and [d].

[ɾ] occurs medially
occurs finally.

[d] occurs initially in /d/
fluctuation with [nd].

[nd] occurs initially in
fluctuation with [d],
occurring medially.

[kh] occurs initially, /k/
occurring medially in
fluctuation with [k]
and [g].

[k] occurs medially in
fluctuation with [kh]
and [g],

[g] occurs medially in
fluctuation with [kh]
and [k].

[g] occurs initially in /g/
fluctuation with [g].

[ŋg] occurs initially in
fluctuation with [g],
occurring medially.

[ts] occurs initially in /s/
fluctuation with [s].

[s] occurs initially in
fluctuation with [ts]
occurring medially.

[kh] occurs initially in
fluctuation with [k]

[k] occurs initially in
fluctuation with [kh],
occurring medially in
fluctuation with [g].

[g] occurs medially in
fluctuation with [k].
[l] occurs medially

/1/ occurs medially in fluctuation with [ʔ]

[ʔ] occurs medially in fluctuation with [l]

The differences that can be noted from this last chart are as follows:

1. Though Kuman has six phonemic stops and Pawaian has only four, yet they both have ten phonetic segments making up the phonemes, Pawaian /t/ having four allophones.

2. Frenasalization of voiced stops is a feature of Kuman, but is nonexistant in Pawaian.
3. Both Kuman and Pawaian have the segment [ɾ]. However, Kuman uses it as a separate phoneme, while Pawaian has it as a submember of the /ɾ/ phoneme.

4. Both languages have /l/, yet phonetically it is different. Kuman /l/ is equivalent to the English sound, whereas Pawaian /l/ is a retroflexed flap. Sometimes it is lateral, sometimes it is not.

5. Kuman has a laterally released velar affricate. There is no such thing in Pawaian.

6. Many Kuman speakers pronounce initial /s/ as [ts]. Pawaians never do this.

7. Kuman has two allophones for /w/. Pawaians has [w] in all situations.

SUPRASEGMENTAL ITEMS

It has been noted that Pawaian has fewer segmental phonemes than Kuman. This deficiency is compensated by the use of two suprasegmental phonemes, nasalization and tone. All six vowels may be oral or nasal and also carry either high or low tone. This means that potentially the six vowels can be used to form twenty-four different contrasts. In practice no more than three-way minimal pairs have been found. One often finds a difference in tone and a difference in nasalization, but nasalization never occurs on two of the words to form a four-way contrast.

For example:

[su] tooth
[su] ginger
[su] road
[yë] new
[yë] ancestor
[yë] type of nut

Syllables

Pawaian and Kuman both have the same syllable types, viz.,

vowel (V)
vowel, consonant (VC)
consonant, vowel (CV)
consonant, vowel, consonant (CVC)

For example,

Kuman

(V) /i/ this
(VC) /ir/ cold
(CV) /bo/ sugar cane
(CVC) /gak/ boy
Though the two languages have the same syllable types, they differ in the phoneme content of the syllable and also in the type of syllables found within the word.

**PHONEME CONTENT OF SYLLABLE**

Each vowel of both languages may occur as the peak in all four syllable types, and all the consonants may occur as syllable onsets. There is however, a limitation as to which consonants may occur as syllable codas. In Kuman /m/, /n/, /g/, /l/ and /k/ are the only ones that can occur in this position, and in Pawaiian, /n/, /l/ and /t/ are the only consonants that act as codas.

For example:

**Kuman**

<table>
<thead>
<tr>
<th>Konbo</th>
<th>Road</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amnigio</td>
<td>Milk</td>
</tr>
<tr>
<td>Amug4</td>
<td>Pandanus</td>
</tr>
<tr>
<td>Olto</td>
<td>Long</td>
</tr>
<tr>
<td>Ponok</td>
<td>Catapult</td>
</tr>
</tbody>
</table>

**Pawaiian**

<table>
<thead>
<tr>
<th>Sin</th>
<th>String</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wot</td>
<td>Grub</td>
</tr>
<tr>
<td>Wit</td>
<td>Finger</td>
</tr>
</tbody>
</table>

**Syllable distribution within the Word**

**Isolated Vowels**

In Pawaiian, all the vowels, both oral and nasal form words in isolation, whereas in Kuman /i/ is the only vowel that can stand alone.

For example:

**Kuman**

| /i/ | This |

**Pawaiian**

| /i/ | Unpalatable | /i/ | Vine |
| /e/ | Agreement  | /e/ | Perspiration |
| /a/ | Response   | /a/ | Wing |
| /o/ | Snake      | /o/ | Half-full |
| /o/ | Boil       | /o/ | Bald |
| /u/ | Canoe      | /u/ | Hole |
VOWEL CLUSTERS

In Pawaian all possible two vowel clusters occur except /iu/, /eu/ and /uu/. Also all vowels occur in clusters of three and four. Twenty-eight different three vowel combinations, and sixteen four vowel combinations have been recorded. One five vowel cluster has also been discovered.

For example:

/péɔ/ young man /sìà/ fire
/póí/ cookatoo /sàì/ type of fish
/sìù/ old /yùsè/ banana?
/sùá/ never mind /yùsù/ not a banana
/íðí/ long /wèèí/ pandanus type
/íiàìè/ peel /ìùì/ yes
/niàgí/ not a friend /sìàlè/ let it go
/Iàìàì/ did not get it

Kuman on the other hand does not have so many vowel clusters. In fact of the 25 possible two vowel combinations only eight have been found coming together. This dislike of vowel clusters is quite noticeable in the study of morphophonemics. Time and again there is vowel elision or assimilation rather than two vowels at morpheme boundaries coming together.

For example:

topo trade + eragìka will do = toporagìka
   e is lost
eri to do + abuka he will = erabuka he will do
   i is lost
e- go + ugua he perfect = ogua he went
   e and u assimilate to become o.

Kuman has no cluster of more than two vowels.

CONSONANT CLUSTERS

Kuman has consonant clusters inasmuch as when the CVC syllable comes other than word final, its coda will form a consonant cluster with a following CV syllable.

For example:

konbo road
mogëkua he stops
kanama we will see

There are no consonant clusters in Pawaian. The CVC pattern only occurs word finally.
CLAUSE STRUCTURE COMPARISON

The main difference between Kuman and Pawaian on the clause level is that Kuman has medial clause types as well as final ones, whereas Pawaian has only final clause types. Both languages share a basic two way division of clause types, predicate versus equational, but Kuman further divides predicate clauses, distinguishing between medial and final ones. Both languages have more than one type of equational clause.

Pawaian then, has the following clause types:
1. Predicate Clause. This covers all predicated utterances with one exception. There is an Alternative Accompaniment Clause which slightly deviates from the predicate one.
2. Demonstrative equational clause.
3. Declarative equational clause.

Kuman on the other hand, has several more divisions. It has four equational clause types and four predicate clauses. The predicate clauses consist of:
1. Independent final clauses.
2. Non-centred independent medial clauses.
3. Centred independent medial clauses.
4. Dependent medial clauses.
The equational clauses are:
1. Demonstrative equational clauses.
2. Verbal equational clauses.
3. Negative equational clauses.
4. Stative clauses.

EQUATIONAL CLAUSES

Both languages indicate the equational type utterance without using any verb. The similarities in the structuring of this type are quite striking. In both languages demonstratives are used, or suffixes added to the noun. Kuman, however, sometimes has an equational type of clause without demonstratives or suffixes. There are also other minor differences.

Equational Clauses using Demonstratives

In Kuman the demonstrative ida meaning this, or ide meaning that, are simply used before the noun to form the demonstrative equational clause.

For example:

\[
\begin{align*}
\text{ida kabe} & \quad \text{that is a banana} \\
\text{that banana} &
\end{align*}
\]
In Pawaian, the demonstrative pronouns are also used but they have the equational suffix added to them.

For example:

\[
\begin{align*}
\text{a} &= \text{this} \\
\text{apa} &= \text{this is} \\
\text{apa yor} &= \text{This is a banana} \\
\text{ou i wapa sa} &= \text{Yes, it's water} \\
\text{apa ma nia Dum} &= \text{This is your friend Dum.} \\
\text{a ye yul wapa} &= \text{My new garment is red} \\
\text{sia yul} &= \text{red garment}
\end{align*}
\]

**Equational Clause using Suffixes**

Another way to form equational clauses in the languages is to use suffixes which verbalize the noun. This form of construction is used with a personal pronoun instead of the demonstrative. In Kuman the suffixes are: -kira and -no, -kira in statements and -no in questions.

For example:

\[
\begin{align*}
\text{ene yatino} &= \text{Are you a married man?} \\
\text{you married man?} \\
\text{owo na yag kira} &= \text{Yes, I'm a married man} \\
\text{yes I married-man-am}
\end{align*}
\]

The next examples contrast the difference between the verbalizing construction and the demonstrative one.

\[
\begin{align*}
\text{a atino} &= \text{Is this a dog?} \\
\text{this dog?}
\end{align*}
\]
In Pawaian the suffixial equational clause is formed by adding the declarative suffixes. These occur in the declarative slot of the verb. They indicate, statement, question and negation.

Statement = -e
Question = -a
Negation = -qi

Unlike the Kuman clause, a personal pronoun is not necessary.

For example:

Is this your house?

Is this a pig house

Is this a banana

Is this water

Kuman Stative Clause

In Pawaian there is no distinction made between stative or equational clauses. If some attribute is being referred to and there is no noun, then the adjective may take the declarative suffix.

For example:

Is the wood hard?
In Kuman however, a distinction is made between equational and stative statements. Adjectives cannot take the verbalizing suffix -kira, so to form a stative clause one has a response and/or a noun phrase, followed by one or more adjectives, plus an optional negative.

For example:

- **ene atino** kruono
  - *Is your dog white?*
  - *you dog-your white?*

- **owo na atina kruo**
  - *Yes, my dog is white*
  - *yes I dog-my white*

- **ene bugaono podono?**
  - *Is your pig big?*
  - *you pig-your big?*

- **taman kebera**
  - *No, he is small*
  - *no small*

- **owo kebera taman**
  - *No, he is not small*
  - *yes small not*

- **ye agiimo nagitino?**
  - *Is his dog a puppy?*
  - *he dog-his puppy?*

- **owo ye agiimo nagigie**
  - *Yes, his dog is a puppy*
  - *yes he dog-his puppy*

**PREDICATE CLAUSES**

As has already been mentioned, Pawaian has one major Predicate type clause with a minor variation for one way of forming an accompaniment clause, and Kuman has four different clause types. One of these types however, parallels the Pawaian predicate clause quite closely, so we will consider them as a pair for comparative purposes, and the other three types will be considered later.

**Pawaian Predicate Clause compared with Kuman**

**Independent Final Clause**

Kuman independent final clauses, are clauses which are independent as regards any other clauses, and which always occur as the final clauses in a sentence. Its verb carries a different set of suffixes from those of the medial clauses. They are, then, able to occur by themselves as simple sentences, and are easily identified by the morphology of the verb.

For example:

(Passages in capitals represent the independent final clause).
Pawaian predicate clauses, are clauses in which a subject is predicated by the use of verbal structures. The subject may or may not be expressed within the clause.

For example:

**ANA HAPOL NUE**
I house went
I went home

ono moilo toia
you garden going?
Are you going to the garden?

**ANA PE HỤEWITULO TAIE MA Hụ IASUÉ**
I boy will call come your dog will get
I will call the boy to come and get his dog

**ANA AMQL MA MAU SỤETOLEE**
I him his brother left-with
I left him with his brother

**Similarities found in the two languages**

1. Both languages have a basic order of Subject, followed by Object, followed by Predicate.

For example:

Kuman

<table>
<thead>
<tr>
<th>Kuman</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>gak agụ sugua</td>
<td>The boy hit the dog</td>
</tr>
<tr>
<td>boy dog hit</td>
<td></td>
</tr>
<tr>
<td>yagụ kwa kanugua</td>
<td>The man saw the bird</td>
</tr>
<tr>
<td>man bird saw</td>
<td></td>
</tr>
</tbody>
</table>
2. The time slot behaves the same in both languages. If the clause has an object, then the time slot occurs immediately before the subject. If there is no object, then the time slot may occur before or after the subject.

For example:

Kuman

edīwe yags kua kanugua
yesterday man bird saw
Yesterday the man saw the bird

edīwe ene edi enga
yesterday you motion went
You went yesterday
or
ene edīwe edi enga
you yesterday motion went
You went yesterday

Pawaian

nei yala tet henaye
yesterday man bird saw
Yesterday, the man saw the bird

nei ono petie
yesterday you went
You went yesterday
or
ono nei petie
you yesterday went
You went yesterday

3. The Response slot is first in the clause in both languages.

For example:

Kuman

owo no enamga
Yes we are going

yes we going
4. Accompaniment slot follows the object in both languages. For example:

Kuman
\[ \text{yag} \text{ wai gak bog neugua} \]
man sweet potato boy with ate
The boy ate sweet potato with the man

Pawaian
\[ \text{toi sali pe pominiso} \text{ hanue} \]
man sweet potato boy with ate
The boy ate sweet potato with the man

5. The Instrument slot follows the subject. For example:

Kuman
\[ \text{na kobug} \text{ a} \text{ g4 si} \text{ a} \]
I stone dog hit
I hit the dog with a stone

Pawaian
\[ \text{ana topu pai h} \text{ n} \text{ awoe} \]
I stone focus dog hit
I hit the dog with a stone

6. The Interrogative particle may be placed in identical places in both languages. It either immediately follows the subject or immediately precedes the predicate. For example:

Kuman
\[ \text{ene sirag} \text{ pire yoba bog} \text{ enga?} \]
you what for person with going
Why are you going with the man?
or
\[ \text{ene yoba bog} \text{ sirag} \text{ pire enga?} \]
you person with what for going

Pawaian
\[ \text{ono nome toi pominiso} \text{ nuna?} \]
You why person with going?
Why are you going with the man?
or
7. Both languages prefer simple clause structure to complex constructions. Speakers use a series of clauses to convey an idea rather than use a single complex one. This may be due to a lack of function words similar to English prepositions. Thus the meaning is sometimes unclear in long clauses, though in other cases, when there is no ambiguity shorter clauses are still used. Let us therefore consider the following.

In Pawaian you may have the following construction:

hepetaqu ono hapolo sali haiuie
noon you house sweet potato will eat
You can eat sweet potato in the house at noon

This is quite acceptable as there is no ambiguity but nevertheless this thought would usually be stated in two clauses.

For example:

hepetau ono hapolo toie, sali haiuie
noon you house go sweet potato will eat
At noon go to the house and eat sweet potato

If time, location, or object slots were omitted so there were only four slots then the original construction would be used.

For example:

hepetau ono hapolo haiuie
noon you house will eat
You can eat in the house at noon
ono hapolo sali haiuie
you house sweet potato will eat
You will eat sweet potato in the house

hepetau ono sali haiuie
noon you sweet potato will eat
At noon you can eat sweet potato

Another example of Pawaian showing difficulties arising out of an absence of function words is now given.

toi ya ma hapolo penaue A man shot a pig at his man pig his house shot house
or
toi ma hapolo ya penaue A man shot his house-pig man his house pig shot

This second construction, though correct, is not usually the one adopted. There seems to be too much room for misunderstanding.
Instead, an appositional phrase is used, to help clarify the meaning.

For example:

\[
\text{to\ i\ ya\ ma\ hapolo\ ya\ penaue}\quad A\ \text{man shot a pig, his own}
\]

\[
\text{man\ pig\ his\ house\ pig\ shot\ house\ pig}
\]

In Kuman there is this same tendency to use a series of small simple clauses to express oneself, rather than using a single complex one.

For example:

\[
\text{ye\ ene\ edimogon\ gak\ tena\ kua}\quad \text{He gave your medicine to}
\]

\[
\text{he\ you\ medicine-your\ boy\ gave\ the\ boy}
\]

This above example is correct but more usual is the following:

\[
\text{ye\ ene\ edimogon\ togua\ gak\ tena\ kua}
\]

\[
\text{he\ you\ medicine-your\ gave\ boy\ gave}
\]

Also consider the following two constructions as translations of

\[
\text{Yesterday\ he\ ate\ sugar\ cane\ in\ the\ garden.}
\]

Example 1.

\[
\text{ediwe\ ye\ bo\ walle\ neugua}
\]

\[
\text{yesterday\ he\ sugaroane\ garden\ ate}
\]

Example 2.

\[
\text{ediwe\ ye\ walle\ mogs\ bo\ neugua}
\]

\[
\text{yesterday\ he\ garden\ stayed\ sugaroane\ ate}
\]

The first example is correct but the four slot version is the method usually followed.

**Differences of Construction**

We have just considered the similarities found between the two languages. We will now consider the differences.

1. **Accompaniment**

It has already been mentioned that the Accompaniment Slot precedes the Predicate or Interrogative Slot in the languages, but Pawaian differs from Kuman insomuch as accompaniment may also be expressed by the use of two clauses juxtaposed, the second clause having a special accompaniment slot. This is the variable construction mentioned earlier.

For example:

\[
\text{tol\ sali\ hanu,\ pe\ hanue\ pomlnisol}
\]

\[
\text{man\ sweet\ potato\ ate\ boy\ ate\ with}
\]

\[
\text{The\ boy\ ate\ sweet\ potato\ with\ the\ man.}
\]

\[
\text{wa\ tol\ ponelo\ tl\ a\ hq\ tle\ pomlnisol}
\]

\[
\text{that\ man\ Ponelo\ return\ my\ dog\ return\ with}
\]

\[
\text{My\ dog\ returned\ with\ that\ man}
\]
2. Location

In Kuman the Location slot follows the object, but in Pawaian it precedes it.

For example:

Kuman

na yag$ konbo kaniga  
I saw the man on the road

Pawaian

ana su toi hetoe  
I saw the man on the road

3. Indirect Object

In Kuman the indirect object follows the object, whereas in Pawaian it precedes it.

For example:

Kuman

na di yag$ teugua  
I gave the axe to the man

Pawaian

ana toi kope imau  
I gave the axe to the man

It is interesting to note that in Kuman it was not possible to get location and indirect object within the one clause. Informants always separated them into two clauses.

For example:

yag$ su na motinda na di teugua  
man garden stayed there I axe gave

The man gave me the axe in the garden

In Pawaian, on the other hand, Location and Indirect Object may be included in the one clause, though it needs to be remembered that in most discourses Pawaian speakers prefer two simple clauses to a single complex one.

For example:

toi ana kope moilo imau  
man me axe garden gave

The man gave the axe to me in the garden

or

toi moilo ewiei, ana Kope imau  
man garden stayed me axe gave

The man gave the axe to me in the garden
4. Medial Clauses

As has been mentioned, Kuman has three different types of medial clauses as well as the final one, a feature that is completely lacking in Pawaian. The medial clauses differ from the final one insomuch as their distribution within the sentence is different, and the morphology of the verb structure is different. There is also a tendency for fewer clause level slots in medial clauses.

DESCRIPTION OF KUMAN MEDIAL CLAUSES

As there are no medial type clauses in Pawaian it is not possible to make any comparisons so this section will simply be devoted to a description of the Kuman types.

1. Non-centred independent medial clauses

Non-centred independent medial clauses, are clauses which are independent of other clauses as far as the action of the clause is concerned. They are non-centred inasmuch as the verb makes no indication as to the subject, which must be the same as the subject of the following clause. They are medial inasmuch as they must be followed by another clause. This clause type has its own set of verb endings which are given in the morphology section of the paper.

For example:

(the non-centred independent medial clause is in capitals)

```
NA PI kaniga
I went looked
I went and looked

YE KUA KADIRE ye sugua
he bird saw he shot
He saw the bird and shot it

nono ye pire sug&moltire edi uug4 enamiga
we him for waited motion home went
We waited for him and then went home

oku Di yobamo bug&m tau sigog4 edi kumo
later Di people-his pig some killed motion Kumo

ugamog4 ogua
hamlet went

Later Di's people killed some pigs and went to Kumo's hamlet
```
indicates that its subject differs from the one in the following clause.

For example:

(The centred independent medial clause is in capitals)

YE NO BUGANO KUNOLUGUO no togimo sibukodumga
he we pig-our stole we fence-his broke
He stole our pig so we broke down his fence

YE NO MAKANO OGUO no bugano mogkirukua
he we ground-our went we pig-our not-remain
He went on our land and then our pig was gone

NA KUA NEIGO ye ugu edogua
I bird ate he home went
I ate the bird and he went home

NO ORUA KEBUGKO yag4 mie gag4kua
we pumpkin boiled man meat roasted
We boiled the pumpkin and the man roasted the meat

3. Dependent medial clauses

A dependent medial clause, is a clause that depends on a following clause for the completion of its meaning. The suffixes joined to the verb stem differ from those joined to the verbs of other clause types. (see morphology section). They are translated into English as conditional, temporal or result clauses. Only as temporal clauses when they are conditional, as in the following sentence: When you will go I will eat

For example:

(The dependent medial clause is in capitals)

NA WIBO na morag4ka
I coming I will stay
If I come I will stay

TE ENE YE KANKIRIBI ye i kirukua
well you he not-see he not-take
Well if you didn’t see him then he didn’t take it

ENE UN kamun biratinga
you come rain will wet
If you come you’ll get wet

NA ENE MEREYEG4 MOKIBO kamun podo sinarukua
I you likeness staying rain big fall down
If I were you I would stay because it’s going to be heavy rain
CLAUSE STRUCTURE SUMMARY

Clause level structure is summarized in the following formulae and statements. In considering the various formulae it is to be remembered, that notwithstanding the number of optional slots that clauses may take, any one clause does not normally have more than four slots.

Kuman Clauses

Formula

\[
\text{Pred Cl} = \pm \text{Res} \pm \text{T}_1 \pm \text{Sub} \pm [\text{T}_2 \pm (\pm \text{Int}_1 \pm \text{Inst} \pm \text{Obj}) \pm \text{P}_1] \pm \text{Acc} \pm \text{Loc} \pm \text{Int}_2 \pm \text{P}_2 \pm \text{P}_3 \pm \text{P}_4
\]

Where:

- \text{Pred Cl} = \text{Predicate clause}
- \text{Res} = \text{response slot}
- \text{T}_1 = \text{time slot number 1}
- \text{T}_2 = \text{time slot number 2}
- \text{Sub} = \text{subject slot}
- \text{Int}_1 = \text{interrogative slot number 1}
- \text{Int}_2 = \text{interrogative slot number 2}
- \text{Inst} = \text{instrument slot}
- \text{Obj} = \text{object slot}
- \text{IO} = \text{indirect object slot}
- \text{Acc} = \text{accompaniment slot}
- \text{Loc} = \text{locative slot}
- \text{P}_1 = \text{predicate slot number 1}
- \text{P}_2 = \text{predicate slot number 2}
- \text{P}_3 = \text{predicate slot number 3}
- \text{P}_4 = \text{predicate slot number 4}

Statement

An independent final clause consists of an optional response slot, followed by an optional time slot number one, followed by an optional subject slot, followed by an optional time slot number two, followed by an optional interrogative slot number two, followed by an optional instrument slot, followed by an optional object slot, followed by an optional indirect object slot, followed by an optional accompaniment slot, followed by an optional locative slot, followed by an optional interrogative slot number two, followed by an obligatory predicate slot number one, two, three or four.

A time slot number two may not occur with any of the following:
interrogative slot number one, instrument slot, object slot, or indirect object slot.

Either a time slot number one, or a time slot number two may occur, but not both.

Either an interrogative slot number one or an interrogative slot number two may occur, but not both.

Type 1 predicate slot is filled by an independent final verb.

Type 2 predicate slot is filled by an independent centred medial verb containing a subject indicator.

Type 3 predicate slot is filled by an independent non-centred medial verb.

Type 4 predicate slot is filled by a dependent medial verb.

**Demonstrative Equational Clause**

**Formula**

\[ \text{DEqCl} = \pm \text{Res:res} \pm \text{It:N} + \text{Com:N(d)} \]

Where:

- \( \text{DEqCl} \) = Demonstrative Equational Clause
- \( \text{Res} \) = response slot
- \( \text{res} \) = response particle
- \( \text{It} \) = item slot
- \( \text{N} \) = noun phrase
- \( \text{Com} \) = comment slot
- \( \text{N(d)} \) = noun phrase including a demonstrative

**Statement**

A demonstrative equational clause consists of an optional response slot filled by a response particle, plus an optional item slot filled by a noun phrase, plus an obligatory demonstrative slot filled by a noun phrase which includes a demonstrative.

**Verbal Equational Clause**

**Formula**

\[ \text{VEqCl} = \pm \text{Res:res} \pm \text{It:pro} + \text{Com:N(-kira)} \]

Where:

- \( \text{VEqCl} \) = Verbal equation clause
- \( \text{Res} \) = response slot
- \( \text{res} \) = response particle
- \( \text{It} \) = item slot
- \( \text{pro} \) = pronoun
- \( \text{Com} \) = comment slot
- \( \text{N(-kira)} \) = noun phrase including suffix -kira
Statement

A verbal equational clause consists of an optional response slot filled by a response, followed by an obligatory Item slot filled by a pronoun, followed by an obligatory comment slot filled by a noun phrase containing the verbalizing suffix -kira.

Stative Clause

Formula

\[ \text{StCl} = +(\pm \text{Res:res} \pm \text{It:N}) + \text{St:adj} \]

Where:

- \text{StCl} = Stative clause
- \text{Res} = response slot
- \text{res} = response particle
- \text{St} = stative slot
- \text{adj} = adjective

Statement

A stative clause consists of an optional response slot filled by a response particle, plus an optional item slot filled by a noun phrase, plus an obligatory stative slot filled by an adjective. Response slots and item slots are optional, but at least one must occur.

Negative Equational Clause

Formula

\[ \text{NECl} = \pm \text{Res:res} + \text{It:N/pr} + \text{Com:N} + \text{Neg:neg} \]

Where:

- \text{NECl} = Negative equational clause
- \text{Res} = response slot
- \text{It} = Item slot
- \text{res} = response particle
- \text{N/pr} = noun phrase or pronoun
- \text{Com} = comment slot
- \text{N} = noun phrase
- \text{Neg} = negative slot
- \text{neg} = negative particle

Statement

A negative equational clause consists of an optional response slot filled by a response particle, followed by an obligatory item slot filled by a noun phrase or a pronoun, followed by an obligatory comment slot filled by a noun phrase, followed by an obligatory negative slot filled by a negative particle.
Pawaian Clauses

Predicate Clause

Formula

\[ \text{PCL} = \pm R \pm T_1 \pm S \pm I_1 \pm [T_2 \pm \text{Ins} \pm (I_1 \pm IO) \pm O] \pm L_2 \pm Ac \pm I_2 \pm P \]

Where:

- \( \text{PCL} \) = Predicate clause
- \( R \) = response slot
- \( T_1 \) = time slot number one
- \( I_1 \) = Interrogative slot number one
- \( T_2 \) = time slot number two
- \( \text{Ins} \) = instrument slot
- \( L_1 \) = locative slot number one
- \( IO \) = indirect object slot
- \( O \) = object slot
- \( L_2 \) = locative slot number two
- \( \text{Ac} \) = accompaniment slot
- \( I_2 \) = interrogative slot number two
- \( P \) = predicate slot

Statement

A predicate clause consists of an optional response slot, followed by an optional time slot number one, followed by an optional subject slot, followed by an optional interrogative slot number one, followed by an optional time slot number two, followed by an optional instrument slot, followed by an optional locative slot number one, followed by an optional indirect object slot, followed by an optional object slot, followed by an optional locative slot number two, followed by an optional accompaniment slot, followed by an optional interrogative slot number two, followed by an obligatory predicate slot.

Either a time slot number one may occur, or a time slot number two; both may not occur.

Either a locative slot number one may occur, or a locative slot number two; both may not occur.

Either an interrogative slot number one may occur or an interrogative slot number two; both may not occur.

A time slot number two slot may not occur with an instrument slot, a locative slot number one, an indirect object slot, or an object slot.
Demonstrative Equational Clause

Formula

$$DEqCl = \pm Res:res \pm It:N + Dem:dem(-pa) + Com:N$$

Where:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEqCl</td>
<td>Demonstrative equational clause</td>
</tr>
<tr>
<td>Res</td>
<td>response slot</td>
</tr>
<tr>
<td>res</td>
<td>response particle</td>
</tr>
<tr>
<td>Dem</td>
<td>demonstrative slot</td>
</tr>
<tr>
<td>dem</td>
<td>demonstrative pronoun</td>
</tr>
<tr>
<td>(-pa)</td>
<td>verbalizing suffix -pa</td>
</tr>
<tr>
<td>It</td>
<td>item slot</td>
</tr>
<tr>
<td>N</td>
<td>noun phrase</td>
</tr>
<tr>
<td>Com</td>
<td>comment slot</td>
</tr>
</tbody>
</table>

Statement

A demonstrative equational clause consists of an optional response slot filled by a response, followed by an optional item slot filled by a noun phrase, followed by an obligatory demonstrative slot filled by a demonstrative pronoun joined to the verbalizing suffix -pa, followed by an obligatory comment slot filled by a noun phrase.

Declarative Equational Clause

Formula

$$DecCl = \pm Res:res \pm It:N + Com:Ndec$$

Where:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DecCl</td>
<td>Declarative equational clause</td>
</tr>
<tr>
<td>Res</td>
<td>response slot</td>
</tr>
<tr>
<td>res</td>
<td>response particle</td>
</tr>
<tr>
<td>It</td>
<td>item slot</td>
</tr>
<tr>
<td>N</td>
<td>noun phrase</td>
</tr>
<tr>
<td>Com</td>
<td>comment slot</td>
</tr>
<tr>
<td>Ndec</td>
<td>noun phrase with declarative suffix</td>
</tr>
</tbody>
</table>

Statement

A declarative equational clause consists of an optional slot filled by a response particle plus an optional item slot filled by a noun phrase, plus an obligatory comment slot filled by a noun phrase containing a declarative suffix.

PHRASE STRUCTURE COMPARISON

A comparison will now be made of the various types of phrases found in the two languages.
NOUN PHRASES

Noun phrases are fillers of the same clause level slots in both languages. They fill subject, object, indirect object and location slots. They have nouns as the obligatory head and these are modified by various satellites. The modifiers fall into the same categories as far as description, colour, number and demonstratives are concerned, except that they differ in their phrase distribution. A bigger difference however, is to be found in the fact that Pawaiian includes an optional focus marker in its phrase. This feature is completely absent in Kuman. Both languages tend toward short phrases.

Phrase length

As has been stated both languages prefer to use short phrases whenever possible. Ideas that are expressed in English by lengthy phrases are divided into separate phrases or clauses in Pawaiian and Kuman. The following examples will clarify this.

Pawaiian examples

In Pawaiian, it is possible to say:

\[\text{wa to\text{i mei ye yul sia nau}}\]
\[\text{that person large new garment red two}\]
\[\text{That person's two large red garments}\]

However, the speaker will normally use two equational clauses in order to describe the man's new garments adequately.

For example:

\[(\text{noun phrases are in capitals})\]
\[\text{wapa TOI PAI MEI YUL NAU wapa YE}\]
\[\text{that-is person focus large garment two that-is new}\]
\[\text{YUL SIA}\]
\[\text{garment red}\]
\[\text{Those are the man's two large garments. They are new red garments}\]

Consider also the following:

This is possible.

\[\text{toi pai A MEI YOR APOLO NEINANA hanue}\]
\[\text{person focus my large banana ripe all ate}\]
\[\text{The man has eaten all my large ripe bananas}\]

but more likely is the following:

\[\text{toi pai a yor neinana hanue. a mei yor}\]
\[\text{person focus my banana all ate my large banana}\]
\[\text{apolo hanue ripe ate}\]
\[\text{The man has eaten all my bananas. My large ripe bananas}\]
\[\text{he has eaten}\]
Kuman examples

The following phrase is structurally correct.

\[\text{ida yag} \text{ gag\textsuperscript{1}mo} \text{ gog\textsuperscript{1} koro podo suo}\]
\[\text{that man} \text{ garment-his red new big two}\]
\[\text{That man's two large red garments}\]

However, the speaker will almost invariably use an equational clause with two phrases to state the idea just given.

For example:

\[\text{yag\textsuperscript{1} GAG\textsuperscript{1}MO} \text{ KORO SUO I} \text{ GAG\textsuperscript{1} PODO YA GOG\textsuperscript{1}}\]
\[\text{man} \text{ garment-his white two this garment big and red}\]
\[\text{The man's two new garments are big and red}\]

Another way of shortening potentially long phrases, is to divide the expression into two clauses. For example a speaker could say:

\[\text{yag\textsuperscript{1} NA AG\textsuperscript{1}NA NAGIG\textsuperscript{4} E KRUO SUO sugua}\]
\[\text{man} \text{ I dog-my puppy white two hit}\]
\[\text{The man hit my two white puppies}\]

but is more likely to say:

\[\text{yag\textsuperscript{1} na ag\textsuperscript{1} na su} \text{ suguo, ag\textsuperscript{1} na nagig\textsuperscript{4} e kruo sugua}\]
\[\text{man} \text{ I dog-my two hit dog-my puppy white hit}\]
\[\text{The man hit my two dogs. The two white pups he hit}\]

Distribution of Noun Phrase

Because the languages favour short phrases over long ones you do not usually find all the slots filled in any one phrase, but by comparing several different structures one is able to arrive at the distribution.

Common features

1. The first slot in both languages is filled by demonstrative or possessive pronouns.

For example:

Kuman

(personal pronouns function as possessive pronouns in conjunction with possessive suffixes).

\[\text{na kabina}\]
\[\text{I banana-my}\]
\[\text{I ag\textsuperscript{1} this dog}\]
Pawaian

a yor  
my banana

á hŋ
this dog

2. A numeral is the last adjective in their phrases. (Numerals occur in numeral adjectival phrases.)

For example:

Kuman

gak suo  Two boys
boy two

gak suo suo  Four boys
boy two two

gak ogono kogîo suo  Seven boys
boy (hand five across) two

na kabina podo suo  My two large bananas
I banana-my big two

Pawaian

pe nau  Two boys
boy two

pe nau anau  Four boys
boy two and-two

pe nau anau anau apoi  Seven boys
boy two and-two and-two and-another

a mei yor nau  My two large bananas
my large banana two

3. When there is more than one adjective and one denotes colour and the other is a descriptive, the colour adjective immediately follows the noun.

For example:

Kuman

agî kama podo  The big black dog
dog black big

na kobugîina kruo yobugîare  My heavy white stone
I stone-my white heavy

Pawaian

hoj hŋ opu  The big black dog
big dog black
Distinctive Features

The common features have been mentioned and we will now consider the differences found in the noun phrase structures.

1. Position of Descriptive Modifiers

Descriptive adjectives in Kuman, follow colour adjectives and come before numerals. In Pawaian they precede the head noun, coming after demonstratives.

For example:

(descriptives are in capitals)

Kuman

<table>
<thead>
<tr>
<th>i edí gog⁴ WIDA</th>
<th>This soft red wood</th>
</tr>
</thead>
<tbody>
<tr>
<td>this wood red soft</td>
<td></td>
</tr>
<tr>
<td>gak KIDE suò</td>
<td>The two bad boys</td>
</tr>
<tr>
<td>boy bad two</td>
<td></td>
</tr>
</tbody>
</table>

Pawaian

<table>
<thead>
<tr>
<th>á sonamu in sia</th>
<th>This soft red wood</th>
</tr>
</thead>
<tbody>
<tr>
<td>this soft wood red</td>
<td></td>
</tr>
<tr>
<td>me pe nau</td>
<td>The two bad boys</td>
</tr>
<tr>
<td>bad boy two</td>
<td></td>
</tr>
</tbody>
</table>

It is to be noted that descriptives may form included phrases in either of the languages.

For example:

Kuman

<table>
<thead>
<tr>
<th>ugu⁴ koro podo</th>
<th>The big new house</th>
</tr>
</thead>
<tbody>
<tr>
<td>house new big</td>
<td></td>
</tr>
<tr>
<td>ugu⁴ podo koro</td>
<td>The big new house</td>
</tr>
<tr>
<td>house big new</td>
<td></td>
</tr>
<tr>
<td>bo olto wakai</td>
<td>Good long sugar-cane</td>
</tr>
<tr>
<td>sugar-cane long good</td>
<td></td>
</tr>
<tr>
<td>bo wakai olto</td>
<td>Good long sugar-cane</td>
</tr>
<tr>
<td>sugar-cane good long</td>
<td></td>
</tr>
</tbody>
</table>

Pawaian

<table>
<thead>
<tr>
<th>hoj ye hapol</th>
<th>The big new house</th>
</tr>
</thead>
<tbody>
<tr>
<td>big new house</td>
<td></td>
</tr>
</tbody>
</table>
2. Variation in Distribution of Pawaian Colour Slot

As has already been stated, when there is a descriptive adjective in the noun phrase, the Pawaian colour adjective follows the noun. However, if there are no descriptives then the colour adjective precedes it.

For example:

- a ye yul sia
  - my new garment red
  - My new red garment

- a sia yul
  - my red garment
  - My red garment

- homi hā poi nau
  - small dog white two
  - Two small white dogs

- ma poi hā nau
  - your two white dogs

3. Pawaian Focus Marker

The major difference between Kuman and Pawaian noun phrases is the optional presence of a focus marker in Pawaian, and its complete absence in Kuman. A focus marker brings a focus of attention to a particular phrase in a clause. If no particular focus is required, then it is not used.

For example:

- pai hanue
  - The rat ate it
- rat ate

- mai hanua? pai pai hanue
  - Who ate it? The rat did
- who ate? rat focus ate

Focus is always the final slot of the phrase.

- hapol pai
  - The house
- house focus

- hoi ya howoti pai
  - Many big pigs
- big pig many focus

- ye wo sipu nau pai
  - The two new blue bags
- new bag blue two focus
Noun Phrase Structure Conclusion

Thus we see that Kuman and Pawaiian noun phrases both have head nouns, modified by fillers of colour, descriptive, quantity and demonstrative slots. We see that both languages have demonstratives as first in the phrase and that numerals are the last of the adjectives. Also we note that colour adjectives have the same distribution under certain conditions, and that included phrases are used as fillers of descriptive and quantity slots.

We also see that the languages differ in their noun phrases by the way Pawaiian includes a focus slot, varies the distribution of the colour one and has the descriptive slot preceding the head slot, when Kuman has it after the head noun.

Formulae and Statements

The distribution of noun phrases can be summarized by tagmemic formulae and statements.

Kuman

Formula

\[ N = \pm \text{Dem:dpr/ppr} + \text{H:n} \pm \text{Col:adj(c)} \pm \text{Des:Aj(d)} \pm \text{Q:Aj(num)} \]

Where

- \( N \) = Noun phrase
- Dem = demonstrative slot
- dpr = demonstrative pronoun
- ppr = personal pronoun
- H = head slot
- n = noun
- Col = colour slot
- adj(c) = adjective denoting colour
- Des = descriptive slot
- Aj(d) = descriptive adjectival phrase
- Q = quantity slot
- Aj(num) = numeral adjectival phrase

Statement

A noun phrase consists of an optional demonstrative slot filled by a demonstrative or personal pronoun, followed by an obligatory head slot filled by a noun, followed by an optional colour slot filled by an adjective denoting colour, followed by an optional descriptive slot filled by a descriptive adjectival phrase, followed by an optional quantity slot filled by a numeral adjectival phrase.

Pawaiian

Formula

\[ N = \pm \text{Dem:pos.p/dm.p} \pm \text{Des:Aj(d)} \pm \text{Col}_1:adj(c) + \text{H:n} \pm \text{Col}_2:adj(c) \pm \text{Q:Aj(num)} \pm \text{Foc:fm} \]
Where:

\[
\begin{align*}
N & = \text{noun phrase} \\
\text{Dem} & = \text{demonstrative slot} \\
\text{pos.p} & = \text{possessive pronoun} \\
\text{dm.p} & = \text{demonstrative pronoun} \\
\text{Des} & = \text{descriptive slot} \\
\text{Aj(d)} & = \text{descriptive adjectival phrase} \\
\text{Col}_1 & = \text{colour slot number one} \\
\text{adj(c)} & = \text{adjective denoting colour} \\
\text{H} & = \text{head slot} \\
\text{n} & = \text{noun} \\
\text{Col}_2 & = \text{colour slot number two} \\
\text{Q} & = \text{quantity slot} \\
\text{Aj(num)} & = \text{numeral adjectival phrase} \\
\text{Foc} & = \text{focus slot} \\
\text{fm} & = \text{focus marker}
\end{align*}
\]

**Statement**

A noun phrase consists of an optional demonstrative slot filled by a pronoun, followed by an optional descriptive slot filled by a descriptive adjectival phrase, followed by an optional colour slot number one filled by an adjective denoting colour, followed by an obligatory head slot filled by a noun, followed by an optional colour slot number two filled by an adjective denoting colour, followed by an optional quantity slot filled by a numeral adjectival phrase, followed by an optional focus slot filled by a focus marker.

Either a descriptive slot or a colour slot number one may occur, but both may not occur.

Either a colour slot number one or a colour slot number two may occur, but both may not occur.

**DESCRIPTIVE ADJECTIVAL PHRASE**

Descriptive phrases are identical in structure in both languages. They are included phrases in phrase level constructions. They are the fillers of descriptive slots.

The phrase is made up of one or more coordinate descriptive adjectives juxtaposed to one another. They describe something concerning the head noun.

For example:

**Kuman**

(descriptive phrase in capitals)

\[
gag\text{W}IDA\text{KIDAG}4\quad old\text{ soft garment}
\]

\[
garment\text{ soft}\text{ old}
\]


\[
\text{Formula and Statement}
\]

As the distribution is the same in both languages, the formula is also the same.

\[
A(d) = + H_1: \text{adj}(d) \pm H_n: \text{adj}(d)
\]

Where:

\[
\begin{align*}
A(d) & = \text{Descriptive adjectival phrase} \\
H_1 & = \text{head slot number one} \\
\text{adj}(d) & = \text{descriptive adjective} \\
H_n & = \text{head slot n times}
\end{align*}
\]

\[
\text{Statement}
\]

A descriptive adjectival phrase consists of an obligatory head slot filled by a descriptive adjective, plus a further optional number of head slots filled by descriptive adjectives.

\[
\text{NUMERAL ADJECTIVAL PHRASE}
\]

The numeral adjectival phrases of both languages are fillers of phrase level quantity slots. The phrases are basically the same in each language. The differences that do occur are due to differences in their respective counting systems. Pawaiian has only five numeral adjectives in which it must take care of all numbering.

For example:
\[
\begin{align*}
\text{pomi} & = \text{one} \\
\text{nau} & = \text{two/pair} \\
\text{poi} & = \text{another} \\
\text{howot} & = \text{many} \\
\text{neinan} & = \text{all}
\end{align*}
\]

To state any specific number above two, a Pawaiian must say a series of \text{nau} which are joined by the numeral prefixial connector \text{a}, and
if it's an odd number conclude with poi joined by the same connector.

For example:

ya pomi  One pig
pig one  

ya nau  Two pigs
pig two  

ya nau apoi  Three pigs
pig two and-another  

ya nau anau anau Six pigs
pig two and-two and-two  

ya nau anau anau anau Nine pigs
pig two and-two and-two and-two
apo
anand-another

Kuman on the other hand has a more efficient system. The numbering works in a five series, using the words for hands and feet to indicate the numbers.

For example:

suara  one
one  
suo  two
two  
suata  three
three  
suo suo  four
two two  
ogino kog40 five
hand across  
oguno kog40 kog40 ten
hand across across  
oguno kog40 kog40 suara eleven
hand across across one  
oguno katino kog40 fifteen
hand foot across  
oguno katino twenty
hand foot
When it is necessary to use numbers greater than twenty, the above are combined in order to form it.

For example:

\[
\begin{align*}
\text{bug} & \text{a oguno katino oguno katino kog} & \text{suara} \\
\text{pig} & \text{hand foot} & \text{hand foot} & \text{across} & \text{one} \\
\text{twenty} & \text{twenty} & \text{five} & \text{one} \\
\text{Thirty-six pigs} \\
\text{yagi} & \text{oguno katino oguno katino oguno kog} & \text{io kog} & \text{io} \\
\text{man} & \text{hand foot} & \text{hand foot} & \text{hand} & \text{across across} \\
\text{twenty} & \text{twenty} & \text{ten} \\
\text{Fifty men}
\end{align*}
\]

The differences in Pawaian numeral phrases and those of Kuman can be illustrated by tagmemic formulae.

Pawaian

Formula

\[A(\text{num}) = +H_1:\text{adj}(\text{num}) \pm H_n:\text{adj}(\text{num})^{a-}\]

Where:

- \(A(\text{num})\) = Numeral adjectival phrase
- \(H_1\) = head slot number one
- \(\text{adj}(\text{num})\) = numeral adjective
- \(H_n\) = head slot \(n\) times
- \(\text{adj}(\text{num})^{a-}\) = numeral adjective with connector prefix

Statement

A numeral adjectival phrase consists of an obligatory head slot filled by a numeral adjective, plus a further optional number of head slots filled by numeral adjectives, with coordinating prefixes.

Kuman

Formula

\[A(\text{num}) = +H_1:\text{Se} \pm H_n:\text{Se}\]

Where:

- \(A(\text{num})\) = Numeral adjectival phrase
- \(H_1\) = head slot number one
- \(\text{Se}\) = serial phrase
- \(H_n\) = head slot \(n\) times

Statement

A numeral adjectival phrase consists of an obligatory head slot filled by a serial phrase, plus an optional number of other head slots filled by serial phrases.
KUMAN SERIAL PHRASE

As has already been mentioned Kuman serial phrases fill the head slots of numeral adjectival phrases. They consist of numeral adjectives and idioms which function as numerals. For examples see page 40 under the heading of numeral adjectival phrases.

Formula

\[ Se = + [\pm \text{Num}_n : \text{Idn} \pm \text{Num}_1 : \text{adj(num)}] \]

Where:

- \( Se \) = Serial phrase
- \( \text{Num}_n \) = numeral slot \( n \) times
- \( \text{Idn} \) = idiom denoting numbers
- \( \text{Num}_1 \) = numeral slot number one
- \( \text{adj(num)} \) = numeral adjective

Statement

A serial phrase consists of an optional number of numeral slots filled by idioms denoting numbers, plus an optional numeral slot number one filled by a numeral adjective. Though both tagmemes are optional, one must occur.

COORDINATE NOUN PHRASE

Coordinate noun phrases occur as allotagmas with noun phrases of subject, object, indirect object, and location clause level slots in both languages. Thus, wherever a noun phrase occurs, a coordinating noun phrase may also occur.

Coordinating phrases are distinguished by coordinators. In Kuman this is the particle \( ya \) and in Pawaian, the clitic -mo. -Mo is suffixed to the final word in the coordinating noun phrase.

For example: Kuman

\[
\begin{align*}
nina & \quad YA \quad AGIRA \\
father-my & \quad \text{and} \quad brother-my \\
My & \quad father \quad \text{and} \quad my \quad brother \\
yag\# & \quad podo \quad YA \quad AG\# \quad KEBERA \\
man & \quad \text{big} \quad \text{and} \quad dog \quad small \\
The & \quad big \quad man \quad \text{and} \quad the \quad small \quad dog \\
bug\# & \quad a \quad suara \quad YA \quad KUA \quad SUO \quad YA \quad AG\# \quad SUATA \\
pig & \quad one \quad \text{and} \quad bird \quad two \quad \text{and} \quad dog \quad three \\
One & \quad pig, \quad two \quad birds, \quad \text{and} \quad three \quad dogs. \\
\end{align*}
\]

Pawaian

\[
\begin{align*}
Apumo & \quad maumo \\
father-and & \quad brother-and \\
Father \quad \text{and} \quad brother
\end{align*}
\]
The big man and the small dog

The big man and the small dog

The formulae and statements for the two languages are as follows:

**Kuman**

**Formula**

\[
\text{CoN} = + \text{It}_1:N + \text{Co}_1:ya+\text{It}_2 + \text{It}_2:N \pm (+\text{Co}_n:ya + \text{It}_n:N)
\]

Where:

- \text{CoN} = Coordinate noun phrase
- \text{It}_1 = item slot number one
- \text{N} = noun phrase
- \text{Co}_1 = coordinator slot number one
- \text{ya} = coordinating particle \text{ya}
- \text{It}_2 = item slot number two
- \text{Co}_n = coordinator slot \text{n} times
- \text{It}_n = item slot \text{n} times

**Statement**

A coordinate noun phrase consists of an obligatory item slot number one filled by a noun phrase, followed by an obligatory coordinator slot number one filled by the particle \text{ya}, followed by an obligatory item slot number two filled by a noun phrase, followed by an optional number of coordinator and item slots filled by the particle \text{ya}, and noun phrases respectively.

**Pawaian**

**Formula**

\[
\text{CoN} = + \text{It}_1:N\text{mo} + \text{It}_2:N\text{mo} \pm \text{It}_n:N\text{mo}
\]

Where:

- \text{CoN} = Coordinate noun phrase
- \text{It}_1 = item slot number one
- \text{Nmo} = noun phrase with clitic -\text{mo}
- \text{It}_2 = item slot number two
- \text{It}_n = item slot \text{n} times

**Statement**

A coordinate noun phrase consists of an obligatory Item slot number one filled by a noun phrase containing the clitic -\text{mo}, followed by an obligatory item slot number two filled by a noun phrase.
containing the clitic -mo, followed by an optional number of item slots filled by noun phrases containing the clitic -mo.

ACCOMPANIMENT PHRASE

Accompaniment phrases occur as fillers of the clause level accompaniment slot. The structure of an accompaniment phrase is identical in both languages. They consist of noun phrases or pronouns, followed by an accompaniment postposition.

For example:

Kuman

yag1 NA BOG4
man I with
I..... with the man

abai BUG1A BOG4 ogua
girl pig with went
The pig went with the girl

gak AG1 KAMA SUO BOG4 ebirka
boy dog black two with went
The two black dogs went with the boy

Pawaian

yala ANA POMINISOI
man I with
I .... with the man

oi YA POMINISOI nue
girl pig with gone
The pig has gone with the girl

pe opu hą nau pominiso: petie
boy black dog two with went
The two black dogs went with the boy

Formula

(same for both languages)

Acc = + Ax:N/pro + Rel:post

Where:

Acc = Accompaniment phrase
Ax = axis slot
N = noun phrase
pro = pronoun
Rel = relator slot
post = postposition
Statement
An accompaniment phrase consists of an obligatory axis slot filled by a noun phrase or pronoun, plus an obligatory relator slot filled by a postposition.

TIME PHRASE
Time phrases are identical in structure for the two languages. They occur as fillers of the clause level time slot. They consist of class one and class two time nouns, with either optional but one of them obligatory. The phrase may also have an optional numeral adjective.

For example:
Kuman

<table>
<thead>
<tr>
<th>Kuman</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>tagima</td>
<td>tomorrow</td>
</tr>
<tr>
<td>tagima aduweri</td>
<td>tomorrow night</td>
</tr>
<tr>
<td>wakan aduweri suo</td>
<td>a fortnight tonight</td>
</tr>
</tbody>
</table>

Pawaian

<table>
<thead>
<tr>
<th>Pawaian</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>nei</td>
<td>tomorrow</td>
</tr>
<tr>
<td>nei yuno</td>
<td>tomorrow night</td>
</tr>
<tr>
<td>yun yuno nau</td>
<td>fortnight tonight</td>
</tr>
</tbody>
</table>

Formula
(same for both languages)

\[ T = + (\pm It(t)_1; t_{n_1} \pm It(t)_2; t_{n_2}) \pm Q; A(num) \]

Where:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Time phrase</td>
</tr>
<tr>
<td>It(t)_1</td>
<td>time item slot number one</td>
</tr>
<tr>
<td>t_{n_1}</td>
<td>time noun class one</td>
</tr>
<tr>
<td>It(t)_2</td>
<td>time item slot number two</td>
</tr>
<tr>
<td>t_{n_2}</td>
<td>time noun class two</td>
</tr>
<tr>
<td>Q</td>
<td>quantity slot</td>
</tr>
<tr>
<td>A(num)</td>
<td>numeral adjectival phrase</td>
</tr>
</tbody>
</table>

Statement
A time phrase consists of an optional time item slot number one filled by a class one time noun, followed by an optional item slot
number two filled by a class two time noun, followed by an optional quantity slot filled by a numeral adjective phrase.

Time item slot number one and time item slot number two are both optional but one of them must occur.

Class one time nouns describe time intervals of twenty-four hours or more. Class two time nouns describe time intervals of less than twenty-four hours.

**VERB PHRASE**

Verb phrases are fillers of the clause level predicate slot. The Kuman phrase differs from the Pawaian one in some significant ways. These differences are found in the distribution of locatives and negatives and the function of verbs of motion.

**Verbs of Motion**

In Kuman, if the action of a verb involves the movement of people a motion particle is inserted into the phrase. This particle normally comes next to the verb, but if there is a clause level locational slot it comes between the motion particle and its verb.

For example:

\[
eke\ e\ enet\ ena\ ga\ \text{go}
\]

You went

\[
amo\ ene\ akie\ suna\ e\ peranagika\ \text{will dig}
\]

I will help you dig

\[
amo\ e\ waile\ enagika\ \text{will go}
\]

I will go to the garden

Pawaian on the other hand has motion particle. Verbs of motion are not formally distinguished from other verbs.

For example:

\[
ono\ pete\ \text{go}
\]

You went

\[
amo\ moilo\ toulo\ \text{will go}
\]

I will go to the garden

**Locational Slot**

As well as a clause level locational slot, Kuman has also a phrase level one. This is filled by locational adverbs, which follow the verb. (As was mentioned above, the clause ones precede the verb).
Pawaiian, on the other hand, has only the clause level locational slot. Adverbs, as well as noun phrases, fill this slot. For example:

Kuman

na ede waile enagika
I motion garden will-go
I will go to the garden

na ede enagika ida
I motion will-go over there
I will go over there

Pawaiian

ana moilo touloae
I garden will-go
I will go to the garden

ana wenj touloae
I there will-go
I will go there

Negational slot

Both languages are capable of negating an utterance by use of a verbal suffix, a fact which will be discussed later in the morphology section. But also, Pawaiian has a negative particle which fills the negational slot in a verb phrase. This slot immediately follows the verb.

For example:

Pawaiian

ana moilo touloae tio
I garden will-go not
I will not go to the garden
or
ana moilo touloqi
I garden will-not-go
I will not go to the garden

Kuman

na ede waile pikiragika
I motion garden will-not-go
I will not go to the garden

Modifying slot

The one distributional feature that both languages share, is the position of the modifying slot. It occurs as the first slot in the phrase.
For example:

Kuman
\[ \text{na tabire ed} \text{i waile enag\$ka} \]
\[ I \text{ quickly motion garden will-go} \]
\[ I \text{ will go to the garden quickly} \]

Pawaian
\[ \text{ana moilo tui touloe} \]
\[ I \text{ garden quickly will-go} \]
\[ I \text{ will go to the garden quickly} \]

Verb phrase formulae and statements

Kuman
\[ V = \pm M:adv \pm \text{Mob:mb } [\ldots] + H:v \pm L:l.adv. \]

Where:

\[ V \quad = \quad \text{Verb phrase} \]
\[ M \quad \text{modifier slot} \]
\[ adv \quad \text{adverb} \]
\[ Mot \quad \text{motion slot} \]
\[ mt \quad \text{motion particle} \]
\[ [\ldots] \quad \text{inclusion of non-phrase element} \]
\[ L \quad \text{location slot} \]
\[ ladv \quad \text{location adverb} \]
\[ H \quad \text{head slot} \]
\[ v \quad \text{verb} \]

Statement

A verb phrase consists of an optional modifier slot filled by an adverb followed by an optional motion slot filled by a motion particle, followed by an obligatory head slot filled by a verb, followed by an optional location slot filled by a locative adverb.

A locational clause level slot may be inserted between the motion slot and the head slot.

Pawaian

Formula
\[ V = \pm M:adv + H:v \pm \text{Neg:ng} \]

Where:

\[ V \quad = \quad \text{Verb phrase} \]
\[ M \quad \text{modifier slot} \]
\[ adv \quad \text{adverb} \]
\[ H \quad \text{head slot} \]
\[ v \quad \text{verb} \]
\[ Neg \quad \text{negative slot} \]
\[ ng \quad \text{negative particle} \]
Statement

A verb phrase consists of an optional modifier slot filled by an adverb followed by an obligatory head slot filled by a verb followed by an optional negation slot filled by a negative particle.

MORPHOLOGICAL COMPARISONS

A comparison of the morphological structure of the two languages will now be made to see if there are any significant similarities or differences. The different parts of speech will be considered as units and will be dealt with separately.

VERB STRUCTURE

Verbs are fillers of verb phrase head slots. Morphologically verbs are more complex than any other part of speech in either language. Therefore, in order to compare them adequately each feature will be considered separately.

Aspect

A shared feature of Kuman and Pawaian which is quite significant in terms of relationship, is the fact that both languages divide the universe up into two aspects rather than the three or more tenses, usually found. These aspects show similarity to the English dichotomy of perfect versus imperfect. The point of attention concerns whether an action is completed or not.

Thus,

(I) was looking
(I) am looking
(I) will be looking

are all spoken the same way. In Kuman this would be NA KANAG4KA. In Pawaian the form would be ANA HETULOE.

The perfect form gives the same meaning as the English past tense. For example:

<table>
<thead>
<tr>
<th>Kuman</th>
<th>Pawaian</th>
</tr>
</thead>
<tbody>
<tr>
<td>na kaniga</td>
<td>anna hetoe</td>
</tr>
<tr>
<td>I saw</td>
<td>I saw</td>
</tr>
</tbody>
</table>

Question marker

Another shared feature of the two languages is found in the way a statement is turned into a question. A final order suffix is used. In Kuman it is -o, and in Pawaian it is -a. For example:

<table>
<thead>
<tr>
<th>Kuman</th>
<th>Pawaian</th>
</tr>
</thead>
<tbody>
<tr>
<td>kanag4ka</td>
<td>(I) am seeing</td>
</tr>
<tr>
<td>kanag4o</td>
<td>Am (I) seeing</td>
</tr>
</tbody>
</table>
kaniga  (I) saw
kanio  did (I) see

Pawaiian
hetulo  (I) am seeing
hetuloa  Am (I) seeing
hetoe  (I) saw
hetoa  did (I) see

Indicative marker

As well as the question marker filling the final order suffixal slot, an indicative marker also fills that slot. In Kuman this is {−ka} − {−ga - −ika} = (k−a - g-a)⁶ and −e in Pawaiian.

The allomorphs -ika - -ka - -ga, in Kuman are phonemically defined:
-ka following a voiceless consonant
-ika following [f]
-ga following vowels or nasals.

-ka - -ga are phonemically defined in reference to each other, but are grammatically defined in reference to the other allomorphs.
-ka occurs following a voiceless consonant
-ga occurs following a nasal or a vowel
-ka - -ga occurs in words containing 2nd/3rd plural marker.

To illustrate the final order suffixes and the various allomorphs of Kuman a paradigm of the perfect and imperfect indicative of the final verb will now be given. The Pawaiian paradigm will also be given, so that it can be used for reference purposes in the studies that are to come.

Kuman
Perfect Indicative

(indicative marker is in capitals)

<table>
<thead>
<tr>
<th></th>
<th>KaniGA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>na</td>
<td>KaniGA</td>
<td>I saw</td>
</tr>
<tr>
<td>ene</td>
<td>kaninGA</td>
<td>You saw</td>
</tr>
<tr>
<td>ye</td>
<td>kanuGUa</td>
<td>He saw</td>
</tr>
<tr>
<td>no</td>
<td>kabug4KA</td>
<td>We two saw</td>
</tr>
<tr>
<td>ene</td>
<td>kaburiKA</td>
<td>You two saw</td>
</tr>
<tr>
<td>ye</td>
<td>kaburiKA</td>
<td>They two saw</td>
</tr>
<tr>
<td>no</td>
<td>kamuGA</td>
<td>We saw</td>
</tr>
<tr>
<td>ene</td>
<td>kaniGuA</td>
<td>You saw</td>
</tr>
<tr>
<td>ye</td>
<td>kaniGuA</td>
<td>They saw</td>
</tr>
</tbody>
</table>
Imperfect Indicative

na  kanag¹KA  I will see
ene  kanatinGA  You will see
ye  kanabuKA  He will see
no  kanabug¹KA  We two will see
en  kanaburiKA  You two will see
ye  kanaburiKA  They two will see
no  kanamGA  We will see
en  kanag¹KuA  You will see
ye  kanag¹KuA  They will see

Pawaiian

Perfect Indicative

ana  hetoE  I saw
ono  hetiE  You saw
á  henuE  He saw
nono  hetiE  We saw
ono  hetiE  You saw
á  hetiE  They saw

Imperfect Indicative

ana  hetuloE  I will see
ono  heniE  You will see
á  hesyE  He will see
nono  heniE  We will see
ono  heniE  You will see
á  heniE  They will see

Negative Suffix

An interesting feature of Pawaiian is revealed in the analysis of the final order suffix of the verb. For in this language, the negative fills the same slot as the indicative and the question suffixes. Thus we have the concept of negation in opposition to that of statement and question. You either state a concept, negate it or question it. You do not ask a question in the negative, as in the English question Didn’t you go?

Kuman on the other hand has its negative suffix in a different order from the statement/question complex and is therefore able to ask a question in the negative. The Kuman negative suffix in the final form of the verb is {-kir} - kir - - kit
- - kit preceding IN
- - kir elsewhere

In Pawaiian the suffix is -qi.
For Example:

(question and negative markers are in capitals)

Kuman

ye kanugua  He saw
ye kanKIRukua  He didn't see
ye kanm0  Did he see?
ye kanKIRim0  Didn't he see?

Pawaiian

á henué  He saw
á henuAl  He didn't see
á henuA  Did he see?

Other Obligatory Suffixes

A major difference between the two languages is found in the remaining obligatory suffixes. In Pawaiian this signifies aspect and in Kuman it signifies person/number. Person/number only occurs in Pawaiian in first and third singular stative forms and will be considered later. Aspect in Kuman only occurs with imperfect forms and will also be considered later.

Kuman Number/person Suffixes

The Kuman number/person suffixes have a considerable number of phonemically defined allomorphs, so before analyzing the morphemic structure, a list of pertinent morphophonemic rules will be given first.

1. A vowel between g₄ and k is lost.
2. When b follows g₄ both are lost.
3. When m follows g₄ both are lost.
4. g₄ preceding n becomes t.
5. When two vowels come together the former is lost.
6. Assimilation takes place when a nasal precedes a prenasalized stop. Either the nasal is lost or it displaces the prenasalization.
7. g₄ following g₄ is lost.

There are also a good number of grammatical allomorphs among the person/number morphemes. The grammatical allomorphs are determined by the grammatical function of adjoining suffixes.

The Suffixes

1st Person singular number:

{g₄} (-i -Ø) + -g₄

na kaniga  I saw
na kan- -i -ga
I stem 1st sg. indic. marker
na kanagi ka  I will see
na kan- -a -g -ka
I stem aspect lst/sg. indic.
na pagi ka  I peeled
na pagi- -Ø -ka
I stem lst/sg. indic.

2nd Person singular number:
{−in} -in + -tin + Ø
ene kaninga  You saw
ene kan- -in -ga
You stem 2nd/sg. indic.
ene kanatinga  You will see
ene kan- -a -tin -ga
You stem aspect 2nd sg. indic.
ene kano  Did you see?
ene kan- -Ø -o
You stem 2nd/sg. question

3rd Person singular number:
{−u−u} -Ø−u = (−u−u −Ø−u) + (−b −bu) + −m
ye kangua  He saw
ye kan+−g −u −a +
he stem indic...3rd/sg...indic
ye kanugua  He saw
ye kan−−u +−g −−u −−a +
he stem 3rd/sg.......3rd/sg indic
indic..........indic
ye pagi kua  He peeled
ye pagi−−Ø +−k −−u −−a +
he stem 3rd/sg ......3rd sg
indic.........indic

ye kanabuka  He will see
ye kan−−a −bu −ka
he stem aspect 3rd/sg indic
ye kanabo  Will he see?
ye kan−−a −b −o
he stem aspect 3rd/sg question
ye kanmo
Did he see?

ye kan- -m -o
he stem 3rd/sg question

1st Person dual number:

{bugi} -bugi -ugi + -ugi

no kabugika We two saw
no ka- -bugi -ka we stem lst/dl indic

no kanabugika We two will see
no kan- -a -bugi -ka we stem aspect lst/dl indic

no paugika We two peeled
no pa- -ugi -ka we stem lst/dl indic

no kankugika We two didn't see
no kan- -k -ugi -ka we stem neg lst/dl indic

2nd/3rd Person dual number:

{-buri} (-buri -uri) + -uri

ene/ye kaburika You/they two saw
ene/ye ka- -buri -ka you/they stem 2nd/3rd dl indic

ene kanaburika You two will see
ene kan- -a -buri -ka you stem aspect 2nd/3rd/dl indic

ene paurika You two peeled
ene pa- -uri -ka you stem 2nd/3rd dl indic

ene kankiurika You didn't see
ene kan- -ki -uri -ka you stem neg 2nd/3rd dl indic

1st Person plural number:

{-mun} [(-mun - -un) = -m] + (-mun - -un) + -un + -m

no kankunga We didn't see
no kan- -k -un -ga we stem neg lst/pl indic

no kamga We saw
no ka- -m -ga we stem lst/pl indic
no kamuga  We saw
no ka- -mu -ga
we stem 1st/pl indic

no kanamga  We will see
no kan- -a -m -ga
we stem aspect 1st/pl indic

no kanamuno  Will we see?
no kan- -a -mun -o
we stem aspect 1st/pl question

no paunga  We peeled
no pa- -un -ga
we stem 1st/pl indic

no kankiramga  We will not see
no kan- -kir -a -m -ga
we stem neg aspect 1st/pl indic

no kankiramuno  Won't we see?
no kan- -kir -a -mun -o
we stem neg aspect 1st/pl question

no kankuno  Didn't we see?
no kan- -k -un -o
we stem neg 1st/pl question

no kamuno  Did we see?
no ka- -mun -o
we stem 1st/pl question

2nd/3rd Person plural number:
{ -g4um } -g4um + (-g4-u -ø-u) + -i-u + -m
ene kanag4umo  Will you see?
ene kan- -a -g4um -o
you stem aspect 2nd/3rd/pl question

ye kanag4kua  They will see
ye kan- -a -g4 k + -k -u -a+
he stem aspect 2nd/3rd/pl........2nd/3rd/pl
indic..................indic

ye pag4kua  They will peel
ye p- -a -g k + -k -u -a+
they stem aspect 2nd/3rd/pl........2nd/3rd/pl
indic...............indic
Kuman Person/number Allomorphs Summarized

The following summary explains the allomorphic variation of the person/number morphemes of the Kuman final verb.

1st Person singular:

\{-i\} (-i - ø) + gi
- gi following aspect suffix
- i - ø elsewhere
- ø between gi and k
- i elsewhere

2nd Person singular

\{-in\} -in + -tin + -ø
- tin following aspect suffix
- ø preceding interrogative providing it is not imperfect
- in elsewhere

3rd Person singular:

\{-bu\} (-bu - -bu) + [(-u-u - ø-u) = -ø-u] + -m
- m preceding interrogative suffix
- b - -bu following aspect suffix
- b preceding vowels
- bu preceding consonants
-u-u - ø-u = ø-u elsewhere
-ø-u occurs with sub-class of verbs as an optional form
-u-u - ø-u occurs elsewhere
-ø-u following stems ending in g
-u-u elsewhere

1st Person dual:
{-bug$} (-bug$ - ug$) + -ug$
-ug$ following negative suffix
-bug$ - ug$ elsewhere
-ug$ following an apocopated stem in which the final g is lost
-bug$ elsewhere

2nd/3rd Person dual:
{-buri} (-buri - uri) + -uri
-uri following a negative suffix
-buri - uri elsewhere
-uri following an apocopated stem in which the final g is lost
-buri elsewhere

1st Person plural:
{-mun} [(-mu - un) = -m] + -mun + -un + -m
-un following a negative suffix
-m between aspect and indicative suffixes
-mun preceding an interrogative suffix when there is no contiguous negative suffix
-mu - un = -m elsewhere
-m occurs with sub-class of verbs as an optional form
-mu - un occurs elsewhere
-un following an apocopated stem in which the final g is lost
-mu occurs elsewhere

2nd/3rd Person plural:
{-g$um} -g$um + -g$-u + -l-u + (-m - um) + -um
-g$um between aspect and interrogative suffix
-g$-u between aspect and indicative suffixes
-um between negative and interrogative suffixes
Pawain Aspect Suffixes

As has been stated the Pawain Aspect suffixes are obligatory and so will be discussed now. Kuman aspect will be discussed with the optional affixes.

There are two aspects in Pawain, perfect or complete, and imperfect or incomplete action.

**Perfect Aspect**

{\text{-i}} \text{-i in all positions}

- ono hetie \text{You saw}
- nono petie \text{We went}

**Imperfect Aspect**

{\text{-ai}} \text{-ai in all positions}

- ono henai \text{You are seeing}
- nono penai \text{We are going}

There is further complication in aspect, inasmuch as there are four portmanteau morphemes which include aspect as one of the meanings. They also have the meaning of person, number and of being stative. They are as follows:

1st Person, singular, perfect, stative

{\text{-o}} \text{-o in all positions}

- ana hetoe \text{I saw}
- I stem 1st/sg statement perf/stative
3rd Person, singular, perfect, stative:

\{-y\} -y in all positions

\[ \text{á henue} \quad \text{he saw} \]
\[ \text{á hen- -y} \quad -e \]
\[ he \; stem \; 3rd/sql \; statement \quad \text{perf/stative} \]

1st Person, singular, imperfect, stative:

\{-ulo\} -ulo in all positions

\[ \text{ana hetuloe} \quad \text{I am seeing} \]
\[ \text{ana het- -ulo} \quad -e \]
\[ I \; stem \; 1st/sql \; statement \quad \text{imperf/stative} \]

3rd Person, singular, imperfect, stative:

\{-esy\} -esy in -esy positions

-esy following consonants
-sy following vowels

\[ \text{á hetesy} \quad \text{He is seeing} \]
\[ \text{á het- esy-} \quad -e \]
\[ he \; stem \; 3rd/sql \; statement \quad \text{imperf/stative} \]

\[ \text{á nawasye} \quad \text{He is hitting} \]
\[ \text{á nawa- sy-} \quad -e \]
\[ he \; stem \; 3rd/sql \; statement \quad \text{imperf/stative} \]

Obligatory Suffixes Summary

The following formulae summarize the obligatory slots found in the verb.

**Kuman**

+ Stem + Number/person + Declarative

**Pawaian**

+ Stem + Aspect + Declarative

Optional Suffixes of the Final Verb

As well as the obligatory parts of the verb, there are also several optional affixes which may be used to modify or add meaning to the verb. In Pawaian these affixes indicate non-immediate future, and intensity. In Kuman they indicate negation, aspect and intensity.
### Pawaiian Optional Suffixes

#### Non-immediate Future

If an action is to be done later than in the immediate future the first order suffix -u is inserted next to the stem.

For example:

- **omol henai** - They will look
  - omol hen- -ai -e
  - those-men stem imperf statement

- **omol henuai** - They will look later
  - omol hen- -u -ai -e
  - those-men stem future imperf statement

#### Intensity

An action with intensity is indicated by the suffix -gi, which is inserted just prior to the declarative slot. When this suffix is used a different English verb often makes a better translation of the Pawaiian.

For example:

- **toi hetie** - The man has seen it
  - toi het- -i -e
  - man stem perf statement

- **toi heticie** - The man has inspected it
  - toi het- -i -gi -e
  - man stem perf intens statement

- **toi ewie** - The man has stopped
  - toi ew- -i -e
  - man stem perf statement

- **toi ewiegi** - The man is staying
  - toi ew- -i -gi -e
  - man stem perf intens statement

#### Kumam Optional Suffixes

### Aspect

As it stands, the verb is in the perfect aspect. If the action is to be in the state of imperfection then it is required to include the suffix -a before the person/number morpheme.
For example:

no kabugāka  We saw
no ka- -bugā -ka
we stem lst/dl indic

no kanabugāka  We will see
no kan- -a -bugā -ka
we stem imperf lst/dl indic

ye eburō  Did they go?
ye e- -bur -o
they stem 3rd/dl question

ye enaburo  Will they go?
ye en- -a -bur -o
they stem imperf 3rd/dl question

Negation

To negate any action, the suffix -kir is placed next after the stem of the verb. -kir has both phonemically defined and grammatically defined allomorphs.

{-kir} (-kir - -kit) + -ki + -k

-ki preceding 2nd/3rd dual suffix
-ki preceding lst dual and plural suffixes
-kir - -kit elsewhere
-ki preceding in
-kir elsewhere

For example:

na kankirika  I didn't see
na kan- -kir -i -ka
I stem neg lst/sg indic

na kankiragāka  I will not see
na kan- -kir -a -gā -ka
I stem neg imperf lst/sg indic

ene kankitinga  You didn't see
ene kan- -kit -in -ga
you stem neg 2nd/sg indic

no kankugāka  We two don't see
no kan- -k -ugā -ka
we stem neg lst/dl indic
In tens it y
ye kan ki urika They two didn't see
ye kan - -ki -uri -ka
they stem neg 2nd/3rd/dl indic

Intensity

Kuman, like Pawaian, intensifies the meaning of an action by the use of a special suffix. In this case it is the suffix -er which comes between the consonant and vowel of the indicative suffix {-ka}. For example:

na pepa kaniga I saw the paper
na pepa kan - -i -ga
I paper stem 1st/sg indic

na pepa kanigera I studied the paper
na pepa kan - -i g-er -a
I paper stem 1st/sg intens indic

ye bug4a dokonabuka He will find the pigs
ye bug4a dokon - -a -bu -ka
He pig stem imperfect 3rd/sg indic

ye bug4a dokonabukera He will search out the pigs
ye bug4a dokon - -a -bu -k -er -a
He pig stem imperfect 3rd/sg intens indic

Order of Final Verb Affixes

The following formulae and statements will show the respective orders of the final verb suffixes, and will summarize what has been discussed in detail.

Kuman
Formula and Statement
fv = + nuc:va ± neg: neg ± asp:imp + nu/pers:nu/pers ± int:int + dec
That is, a final form verb consists of an obligatory nuclear slot filled by a verb stem, an optional negative slot filled by a negative suffix, an optional aspect slot filled by an imperfect aspect suffix, an obligatory number/person slot filled by a number/person suffix, an optional intensifier slot filled by an intensifier suffix, and an obligatory declarative slot filled by a declarative suffix.
Pawaian

Formula and Statement

\[fv = +nuc:vs \pm fut:fut + Asp:asp \pm int:int + dec:dec\]

That is, a final form verb consists of an obligatory nuclear slot filled by a verb stem, an optional future slot filled by a future suffix, an obligatory aspect slot filled by an aspect suffix, an optional intensity slot filled by an intensity suffix, and an obligatory declarative slot filled by a declarative suffix.

THE MEDIAL FORM VERB

The verb endings given so far have been attached to the final verb in a sentence. However, when a verb is in a non-final clause it takes different endings. At least in Kuman it does. In Pawaian the only difference is that a statement suffix may be left off on the medial verb.

For example:

(whole sentence medial verbs are in capitals)

\[
\text{á nue} \quad \text{He has gone}
\]

\[
\text{he gone}
\]

\[
\text{á NU hetesye} \quad \text{He has gone to eat}
\]

\[
\text{he gone will-eat}
\]

\[
\text{toi sali hanue} \quad \text{The man ate sweet potato}
\]

\[
\text{man sweet-potato ate}
\]

\[
\text{hanue HANU pe The boy ate sweet potato with}
\]

\[
\text{man sweet-potato ate boy the man}
\]

\[
\text{pominisoi hanue with ate}
\]

In Kuman as has been said, the medial verb takes various different sets of endings, depending on whether there is more than one subject involved and in what type of clause the medial verb is situated.

Verb in Independent Medial Clause

(a) Subjects the Same

When the subject in both clauses is the same and the actions are simultaneous or in quick succession, the sentence medial verb simply consists of the verb stem.

For example:

\[
\text{na PI kaniga I went and saw}
\]

I went saw
ye KATE durukua  He talked and sang
he talked sang

If the action of the second clause follows that of the first in a
normal sequence of events, then the sequential suffix -tire - -dire
is added to the stem of the medial verb.

For example:

ye kua KADIRE ye sugua  He saw, and then shot
he bird saw  he shot  the bird

ye pepa kiurita BOLTIRE ye  He wrote a little and
he paper little wrote  he then went home
ede ugug1 egua
motion home went

(b) Subjects different
When there are different subjects in two or more coordinate clauses
the medial verb takes the same suffixes as the final form of the verb,
except that there is no aspect slot, and the filler of the declarative
slot is different. This filler functions as a medial declarative
suffix. It takes the form -0. This perhaps can best be illustrated
by a paradigm, so the medial form of kan to see will be given. This
will be followed by some examples, using this form in sentences.

Coordinate Medial Verb with Different Subjects

kan  to see

<table>
<thead>
<tr>
<th>Stem</th>
<th>Pers/num</th>
<th>med/declarative</th>
</tr>
</thead>
<tbody>
<tr>
<td>na kanigo</td>
<td>kan-</td>
<td>-l   -go</td>
</tr>
<tr>
<td>ene kaningo</td>
<td>kan-</td>
<td>-in   -go</td>
</tr>
<tr>
<td>ye kanuguo</td>
<td>kan-</td>
<td>-u...u -g.o</td>
</tr>
<tr>
<td>no kabug1ko</td>
<td>kan-</td>
<td>-bug1 -ko</td>
</tr>
<tr>
<td>ene/ye kaburiko</td>
<td>kan-</td>
<td>-bur -ik0</td>
</tr>
<tr>
<td>no kamugo</td>
<td>ka-</td>
<td>-mu  -go</td>
</tr>
<tr>
<td>ene/ye kaniguo</td>
<td>kan-</td>
<td>-i..u -g.o</td>
</tr>
</tbody>
</table>

For example:

ye kobug1 ko puksugu kaniga  He threw the stone and I saw it
he stone threw saw-I

na kankiri ko kua edugua  I didn’t see the bird so it
I not-see  bird went
got away

ene engo pikirag1ka  You will go and they won’t
you go  they-will-not-go

Coordinate verb Formulae

Co.m,v1 = + nuc:vs ± seq:seq
Type one coordinate medial verb consists of an obligatory nuclear slot filled by a verb stem, and an optional sequential slot filled by a sequential suffix.

\[ \text{Co.m.v}_2 = + \text{nuc:vs} \pm \text{neg:neg} + \text{n/p:n/p} \pm \text{int:int} + \text{dec:m.dec} \]

A type two coordinate medial verb consists of an obligatory nuclear slot filled by a verb stem, an optional negative slot filled by a negative suffix, an obligatory number/person slot filled by a number/person suffix, an optional intensifier slot filled by an intensifier suffix, and an obligatory declarative slot filled by a medial declarative suffix.

**The Dependent Medial Verb**

When the medial verb is in a dependent clause it has a special set of suffixes. These indicate dependency, person, number, and negation. The declarative slot is missing in this particular set of endings. It is possible to see the likeness between the person/number morpheme of the final verb and part of the endings of most of the dependent verb forms, but an attempt to separate out a morpheme indicating dependency from the person/number suffixes leaves one with such a complicated set of grammatical allomorphs that it is far simpler to postulate portmanteau morphemes for all of the positive endings.

To illustrate this, the suffixes will be shown in paradigmatic form. Then the difficulties of setting up a separate dependent indicating morpheme will be shown, and finally, the negative and portmanteau morphemes will be described.

**Dependent Medial Verb Conjugation**

**Positive of kan to see**

<table>
<thead>
<tr>
<th>Person</th>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st sg</td>
<td>kanibo</td>
<td>While I was looking</td>
</tr>
<tr>
<td>2nd sg</td>
<td>kanin</td>
<td>While you were looking</td>
</tr>
<tr>
<td>3rd sg</td>
<td>kanan</td>
<td>While he was looking</td>
</tr>
<tr>
<td>1st dl</td>
<td>kanobug</td>
<td>While we two were looking</td>
</tr>
<tr>
<td>2nd/3rd dl</td>
<td>kaniburi</td>
<td>While you/they two were looking</td>
</tr>
<tr>
<td>1st pl</td>
<td>kanomun</td>
<td>While we were looking</td>
</tr>
<tr>
<td>2nd/3rd pl</td>
<td>kanibi</td>
<td>While you/they were looking</td>
</tr>
</tbody>
</table>

**Negative of kan to see**

<table>
<thead>
<tr>
<th>Person</th>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st sg</td>
<td>kankiribo</td>
<td>When I wasn't looking</td>
</tr>
<tr>
<td>2nd sg</td>
<td>kankitin</td>
<td>When you weren't looking</td>
</tr>
<tr>
<td>3rd sg</td>
<td>kankiran</td>
<td>When he wasn't looking</td>
</tr>
<tr>
<td>1st dl</td>
<td>kankug4</td>
<td>When we two weren't looking</td>
</tr>
</tbody>
</table>
If one only considers the positive form of the verb, it is possible to claim that the initial vowel of the verb endings is the dependent indicating morpheme, and that it is manifested by three grammatical allomorphs:

- **-o** with 1st dual and plural
- **-a** with 3rd singular
- **-i** with 1st singular, 3rd dual and plural, and all of 2nd person

For example:

<table>
<thead>
<tr>
<th>stem dependency</th>
<th>pers/num</th>
<th>Dependent</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>na kanibo</td>
<td>kan-</td>
<td>-i</td>
<td>-bo</td>
</tr>
<tr>
<td>ene kanin</td>
<td>kan-</td>
<td>-i</td>
<td>-n</td>
</tr>
<tr>
<td>ye kanan</td>
<td>kan-</td>
<td>-a</td>
<td>-n</td>
</tr>
<tr>
<td>no kanobug⁴</td>
<td>kan-</td>
<td>-o</td>
<td>-bug⁴</td>
</tr>
<tr>
<td>ene/ye kaniburi</td>
<td>kan-</td>
<td>-i</td>
<td>-bug⁴</td>
</tr>
<tr>
<td>no kanomun</td>
<td>kan-</td>
<td>-o</td>
<td>-mun</td>
</tr>
<tr>
<td>ene/ye kanibi</td>
<td>kan-</td>
<td>-i</td>
<td>-bi</td>
</tr>
</tbody>
</table>

However, when the endings which are found with the negative are also taken into account there are problems which have to be faced. The dual number and the 2nd and 3rd dual number endings do not have these postulated dependency allomorphs. In fact the whole endings apocopate. The negative is reduced to -k or -ki, and the person/number suffix loses its initial consonant. It is then this apocopation that indicates the dependency of the verb. Therefore, rather than try to describe a dependent indicating morpheme in terms of loss and reduction of neighbouring morphemes, it is more practical to postulate a portmanteau morpheme which has the meaning of dependency, together with person and number.
Dependent Portmanteau Morphemes

The dependent portmanteau morphemes of the Kuman medial verb, indicate dependency, person, and number. They are indicated as follows:

1st Person, singular, dependent:
{ -ibo } -ibo
na kanibo When/ because/ if I saw
kan- -ibo
stem 1st/ sg/ dep
na ukiribo When I didn’t come
u- -kir -ibo
stem neg 1st/ sg/ dep
ye ene KANKIRIBI ye bug' a kunolugua
he you didn’t- see he pig stole
Because you didn’t see him, he stole the pig

2nd Person, singular, dependent:
{ -in } -in
ene kanin Because you saw
kan- -in
stem 2nd/ sg/ dep
ene ukitin As you didn’t come
u- -kit -in
stem neg 2nd/ sg/ dep
ee ede EN na bug‘a toporag‘ka
you motion go I pig will-trade
If you go I will buy the pig

3rd Person, singular, dependent:
{ -an } -an - -nan
-an following a consonant
-nan following a vowel
ye kankir an When he didn’t see
kan- -kir -an
stem neg 3rd/ sg/ dep
ye unan When he came
u- -nan
stem 3rd/ sg/ dep
When the boy has written on the paper we two will go

1st Person, dual, dependent:

\{-obug\} \{-obug \ -bug\} + -ug

\{\text{ug} \text{ following a negative suffix}
\{\text{obug} \text{ elsew}here
\{\text{ug} \text{ following a back vowel}
\{\text{obug} \text{ elsewhere

\text{no kanobug} \rightarrow \text{Because we two see}
\text{kan-\ -obug} \rightarrow \text{Because we came}
\text{u-\ -bug} \rightarrow \text{Because we two didn't see}
\text{kan-\ -k \ -ug} \rightarrow \text{Because we two didn't see}

\text{nono edo \ 
\text{meda \ obug} \rightarrow \text{akie endogua}
\text{we motion \ outside went \ he also went
\text{When we went outside, he went out too}

2nd/3rd Person, dual, dependent:

\{-iburi\} \{-iburi \ -buri\} + -uri

\{\text{uri following negative suffix}
\{\text{iburi} \text{ elsew}here
\{\text{buri} \text{ following back vowels}
\{\text{iburi} \text{ elsewhere

\text{ene kaniburi} \rightarrow \text{If you two see}
\text{kan-\ -iburi} \rightarrow \text{If you two come}
\text{u-\ -buri} \rightarrow \text{If they two don't come}
\text{kan-\ -ki \ -uri} \rightarrow \text{If they two don't come}
we swim little performed he home went
While we swam a little he went home.

1st Person, plural, dependent:

\{-omun\} \{-omun \ -mun\} + -un
- un following negative suffix
- omun \ -mun elsewhere
- mun following back vowels
- omun elsewhere

nono kanomun When we saw
kan- -omun
stem 1st/pl/dep
no umun When we come
u- -mun
stem 1st/pl/dep
no kankun When we didn't come
kan- -k -un
stem neg 1st/pl/dep
nono kopi urakun masita edugua
we coffee not-picking white-man came
When we weren't picking the coffee the white-man came

2nd/3rd Person, plural, dependent:

\{-ibi\} -ibi - -bi
- bi following back vowels
- ibi elsewhere

ye kanibi As they saw
kan- -ibi
stem 2nd/3rd/pl/dep
ye ubi As they come
u- -bi
stem 2nd/3rd/pl/dep
ye eibi gak dirag\{orukua
they gone child play
While they are gone the child is playing

The Negative Suffix in the Dependent Verb

The rules that applied to the negative in the final form of the
verb also apply to the dependent verb, so that a quick reference back to the discussion on page 52 is all that need be done here.

For example:

\{-kir\} (-kiri -kit) + -ki + -k

-ki precedes the 2nd/3rd dual suffix
-k precedes 1st dual and plural suffixes
-kiri -kit occurs elsewhere
-kit before -in
-kiri elsewhere

For example:

ene kankiuri While you two weren't looking
kan- -ki -uri
stem neg 2nd/3rd/dl/dep
no kankun While we weren't looking
kan- -k -un
stem neg 1st/pl/dep
ene kankitin While you weren't looking
kan- -kit -in
stem neg 2nd/sg/dep
ene kankiribi While you weren't looking
kan- -kir -ibi
stem neg 2nd/3rd/pl/dep

THE NOUN

Nouns are fillers of head slots in noun phrases and of item slots in time phrases. In both languages nouns carry suffixes to verbalize the noun in statements and questions. The languages differ insomuch as Kuman has possessive suffixes and Pawaian has negatives and copulas as suffixes.

Noun Classes

The main difference between the two noun systems is concerned with the presence of two noun classes which occur in Kuman, but not in Pawaian. These classes are based on the obligatory or optional presence of possessive suffixes. One class of nouns can stand as free-form morphemes, but the other must always be possessed. This second class is made up of body parts and kinship terms. Pawaian has no possessed nouns.

For example:
Obligatorily Possessed

na nina  my mother
na bitina  my head
I  head-my

na agera  my brother
I  brother-my

na oguna  my hand
I  hand-my

Optionally Possessed

ag4  dog  ag4ina  my dog
ugug4  house  ugug4ina  my house
gak  boy  gakina  my boy

Pawaian One Class

mu  head  a mu  my head
mau  brother  a mau  my brother
nemi  hand  a nemi  my hand
hapol  house  a hapol  my house

Kuman Suffixes

1. Possessive Suffixes

The Kuman possessive suffix is complicated by the number of morphemically defined allomorphs which occur with the third person singular possessive. The first person singular has two such allomorphs.

1st Person, singular, possessive suffix:

{-na}  -na = -ra
    -na with class 1 and classes 2a, 2b, 2c and 2d nouns
    -ra with class 2e nouns

For example:

na bawana  my uncle
bawa-  -na
stem  my

na dirabina  my tongue
dirabi-  -na
stem  my
na nina  my father
ni- -na
stem my

na yobura  my bone
yobu- -ra
stem my

na abara  my sister
aba- -ra
stem my

2nd Person, singular, possessive suffix:

{ -n } -n - tin
   - with class 1 and classes 2a, 2b,
     2c, and 2d nouns
   - tin with class 2e nouns

ene bawan  your uncle
bawa- -n
stem your

ene dirabin  your tongue
dirabi- -n
stem your

ene abatin  your sister
aba- -tin
stem your

3rd Person, singular, possessive suffix:

{ -mo } -mo -m -no -ie -ug'to
   -mo with class 1 and class 2a nouns
   -m with class 2b nouns
   -no with class 2c nouns
   -ie with class 2d nouns
   -ug'to with class 2e nouns

For example:

Class 1 nouns

ye konbomo  his dog
konbo -mo
stem his

ye dikirimo  his corn
dikiri -mo
stem his
<table>
<thead>
<tr>
<th>Class 2a nouns</th>
<th>Ye</th>
<th>Nem</th>
<th>His father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ne-</td>
<td>-m</td>
<td>Stem</td>
<td>His</td>
</tr>
<tr>
<td>Ye bawamo</td>
<td></td>
<td></td>
<td>His uncle</td>
</tr>
<tr>
<td>Bawa-</td>
<td>-mo</td>
<td>Stem</td>
<td>His</td>
</tr>
<tr>
<td>Ye mokumo</td>
<td></td>
<td></td>
<td>His back</td>
</tr>
<tr>
<td>Moku-</td>
<td>-mo</td>
<td>Stem</td>
<td>His</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class 2b nouns</th>
<th>Ye</th>
<th>Nem</th>
<th>His father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ne-</td>
<td>-m</td>
<td>Stem</td>
<td>His</td>
</tr>
<tr>
<td>Ye gawam</td>
<td></td>
<td></td>
<td>His nephew</td>
</tr>
<tr>
<td>Gawa-</td>
<td>-m</td>
<td>Stem</td>
<td>His</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class 2c nouns</th>
<th>Ye</th>
<th>Dirano</th>
<th>His lips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dirana-</td>
<td>-no</td>
<td>Stem</td>
<td>His</td>
</tr>
<tr>
<td>Ye gumano</td>
<td></td>
<td></td>
<td>His nose</td>
</tr>
<tr>
<td>Guma-</td>
<td>-no</td>
<td>Stem</td>
<td>His</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class 2d nouns</th>
<th>Ye dirabie</th>
<th>His tongue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dirabie-</td>
<td>-ie</td>
<td>Stem</td>
</tr>
<tr>
<td>Ye wie</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W-</td>
<td>-ie</td>
<td>Stem</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class 2e nouns</th>
<th>Ye abaugfo</th>
<th>His sister</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aba</td>
<td>-ugfo</td>
<td>Stem</td>
</tr>
</tbody>
</table>
ye ogomug'o  his eye
ogom-  -ug'o
stem  his

1st/2nd/3rd Person, plural, possessive suffix:
{ -no }  -no  -ro
   -no  with class 1 and class 2a, 2b, 2c and 2d nouns
   -ro  with class 2e nouns
no bawano  our uncle
bawa-  -no
stem  our
ene nino  your father
ni-  -no
stem  your
ye yoburo  their bones
yobu-  -ro
stem  their

2. Noun Verbalizing Suffixes

Kuman has two verbalizing suffixes, one indicates a statement, and the other a question.

Statement verbalizing suffix: { -kira }
Question verbalizing suffix: { -no }

For example:
ene yagâ kira  You are a married man
yagâ -kira
stem verbalizer
ye agâ kira  It is a dog
agâ -kira
stem verbalizer
ene yagâ ino?  Are you a married man?
yagâ -ino
stem verbalizer
ye agâ ino?  Is it a dog?
agâ -ino
stem verbalizer
**Pawaian Suffixes**

1. **Noun declarative suffixes**

   The three declarative suffixes that occur with verbs, also occur with nouns. When attached to nouns they either state a fact, question it, or deny it. A noun with the declarative suffix acts as a verbal-noun.

   **Positive declarative suffix:**
   
   \[{-e} \] -e at all times
   
   toi -e  \textit{It's a person}
   
   toi -e stem dec
   
   a hapole -e  \textit{It's my house}
   
   hapol -e stem dec

   **Question declarative suffix:**
   
   \[{-a} \] -a at all times
   
   toi a? \textit{Is it somebody?}
   
   toi -a stem dec
   
   a hapola?  \textit{Is it my house?}
   
   hapol -a stem dec

   **Negative declarative suffix:**
   
   \[{-qi} \] -qi at all times
   
   toi qi  \textit{It’s not a person}
   
   toi -qi stem neg/dec
   
   a hapolqi  \textit{It’s not my house}
   
   hapol -qi stem neg/dec

2. **Noun Copula Clitic**

   As well as the first order declarative suffixes the Pawaian noun also may have the copula clitic suffixed to it, in second order position.

   Copula clitic: \[{-mo} \] -mo at all times
Noun Formulae

The noun structure of the two languages can be summarized by the following formulae and statements.

Kuman

\[ n_1 = + \text{nuc:ns} \pm \text{poss:pm} \pm \text{equat:vblzr} \]

A class one noun consists of an obligatory noun nucleus slot filled by a noun stem, optionally followed by either a possessive slot filled by a person marker, or an equational slot filled by a verbalizer.

\[ n_2 = + \text{nuc:ns} + \text{poss:pm} \pm \text{equat:vblzr} \]

A class two noun consists of an obligatory noun nucleus slot filled by a noun stem, followed by either an obligatory possessive slot filled by a person marker or an obligatory equational slot filled by a verbalizer.

Pawaian

\[ n = + \text{nuc:ns} \pm \text{equat:vblzr} \pm \text{coord:cop} \]

A noun consists of an obligatory noun nucleus slot filled by a noun stem, followed by an optional equational slot filled by a verbalizer, followed by an optional coordinator slot filled by a copula.

Other Parts of Speech

All other parts of speech are uninflected particles with the exception of the following:

1. The Kuman interrogative si'ta? meaning what? takes the verbalizing suffix -ne when there is no verb in the construction.
2. The Pawaian numeral adjectives take the coordinating clitic -mo and the coordinating prefix -a.
3. The Pawaian demonstrative pronouns take the verbalizing suffix -pa.

PERSONAL PRONOUNS

Personal pronouns are fillers of clause level, subject, object, indirect object, accompaniment and location slots. They substitute for noun phrases. They have particular interest value in the
comparison of the two languages inasmuch as it is the only comparison that gives a high percentage of cognates. Pawaian has only three personal pronouns and all three are cognated with the corresponding Kuman pronouns.

For example:

<table>
<thead>
<tr>
<th>Pawaian</th>
<th>Kuman</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ana</td>
<td>na</td>
<td>I, me</td>
</tr>
<tr>
<td>ono</td>
<td>ene</td>
<td>you</td>
</tr>
<tr>
<td>nono</td>
<td>nono/no</td>
<td>we, we</td>
</tr>
<tr>
<td>-</td>
<td>ye</td>
<td>he, him, they, them</td>
</tr>
</tbody>
</table>

A common feature in both languages is that they do not distinguish between the form of the subject pronoun and the object one. The differences between the languages are found in their use of possessives, the third person, and the first person plural.

1. Possessives

In Kuman the possessive pronoun and the personal pronoun are one and the same. Ambiguity is avoided by the use of possessive suffixes on owned nouns.

For example:

na agatin ag -ina my dog  
I dog-my stem poss

ene gagatin gag -in your bag  
you bag-your stem poss

Pawaian, however has a set of possessive pronouns. The set only consists of two forms, but these are used to show possession at all times. They are:

a my, our
ma your, his, their

For example:

a h a my dog  
my dog

ma wo your bag  
your bag

ma wo pani anala where is your bag?  
your bag where situated

2. Third Person Pronouns

The difference here lies in the fact that Pawaian has no third person pronouns. It uses demonstratives instead, often in conjunction with a noun.
For example:

**Kuman**

<table>
<thead>
<tr>
<th>Sentence</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ye kanugua</td>
<td>He saw</td>
</tr>
<tr>
<td>he saw</td>
<td></td>
</tr>
<tr>
<td>ye gag4imo</td>
<td>Her bag</td>
</tr>
<tr>
<td>she bag-her</td>
<td></td>
</tr>
</tbody>
</table>

**Pawaian**

<table>
<thead>
<tr>
<th>Sentence</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>á sopulu</td>
<td>His bow</td>
</tr>
<tr>
<td>this-(ones) bow</td>
<td></td>
</tr>
<tr>
<td>wa al wo</td>
<td>Her bag</td>
</tr>
<tr>
<td>that woman bag</td>
<td></td>
</tr>
<tr>
<td>a (tol) henue</td>
<td>He saw</td>
</tr>
<tr>
<td>this (man) saw</td>
<td></td>
</tr>
</tbody>
</table>

3. First Person Plural Pronouns

In Kuman there are two first person plural pronouns, but in Pawaian there is only one. Kuman has the two pronouns because in this language, the speaker likes to make clear whether the one spoken to is included or excluded in the action referred to. Thus no is used if the referent is excluded, nono if he is included. In Pawaian no effort is made to make these distinctions.

For example:

**Kuman**

<table>
<thead>
<tr>
<th>Sentence</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>no ugug4 enomun ene akie enatinga</td>
<td>we(excl) house want you also went</td>
</tr>
<tr>
<td>Because we went home you went also</td>
<td></td>
</tr>
<tr>
<td>no ugug4 pira pira enamga</td>
<td>we(incl)house everybody will-go</td>
</tr>
<tr>
<td>We'll all go home</td>
<td></td>
</tr>
</tbody>
</table>

**Pawaian**

<table>
<thead>
<tr>
<th>Sentence</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>nono hapol petinono petie</td>
<td>we house went you went</td>
</tr>
<tr>
<td>We went to the house</td>
<td></td>
</tr>
<tr>
<td>nono hapol nein na petaie</td>
<td>we house all will-go</td>
</tr>
<tr>
<td>We'll all go home</td>
<td></td>
</tr>
</tbody>
</table>

**DEMONSTRATIVE PRONOUNS**

Demonstrative pronouns in Pawaian occur as fillers of the equational clause demonstrative slot, and the noun phrase demonstrative slot.
They occur in Kuman as fillers of the noun phrase demonstrative slot. In the Pawaian equational clause, demonstratives take the verbalizing suffix -pa.

For example:

**Kuman**

<table>
<thead>
<tr>
<th>Demonstrative</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>i buga</td>
<td>This pig or This is a pig</td>
</tr>
<tr>
<td>ida uugu podo</td>
<td>That big house or That is a big house</td>
</tr>
</tbody>
</table>

**Pawaian**

<table>
<thead>
<tr>
<th>Demonstrative</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 ya</td>
<td>This pig</td>
</tr>
<tr>
<td>apa ya</td>
<td>This is a pig</td>
</tr>
<tr>
<td>wa hqi hapol</td>
<td>That big house</td>
</tr>
<tr>
<td>wapa hqi hapol</td>
<td>That is a big house</td>
</tr>
</tbody>
</table>

**DESCRIPTIVE ADJECTIVES**

Descriptive adjectives occur as fillers of head slots in descriptive adjectival phrases. They have the same function in both languages.

For example:

**Kuman**

(descriptive adjectives are in capitals)

<table>
<thead>
<tr>
<th>Descriptive Adjective</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>gak WAKAI</td>
<td>The good boy</td>
</tr>
<tr>
<td>boy good</td>
<td></td>
</tr>
<tr>
<td>yag OLO PODO</td>
<td>The big tall man</td>
</tr>
<tr>
<td>man tall big</td>
<td></td>
</tr>
</tbody>
</table>

**Pawaian**

<table>
<thead>
<tr>
<th>Descriptive Adjective</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOI pe</td>
<td>Good boy</td>
</tr>
<tr>
<td>good boy</td>
<td></td>
</tr>
<tr>
<td>101 MEI toi</td>
<td>The big tall man</td>
</tr>
<tr>
<td>tall big man</td>
<td></td>
</tr>
</tbody>
</table>

**COLOUR ADJECTIVES**

Colour adjectives occur as fillers of colour slots in noun phrases. Their function is the same in both languages.

For example:

**Kuman**

<table>
<thead>
<tr>
<th>Colour Adjective</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ag KAMA</td>
<td>Black dog</td>
</tr>
<tr>
<td>dog black</td>
<td></td>
</tr>
<tr>
<td>kobug KRUO podo</td>
<td>Big white stone</td>
</tr>
<tr>
<td>stone white big</td>
<td></td>
</tr>
</tbody>
</table>
NUMERAL ADJECTIVES

Numerical adjectives occur as fillers of the head slot of numeral phrases. These in turn are fillers of noun phrase quantity slots.

Numerical adjectives have the same function in both languages in that they modify a head noun by indicating how many of it are being referred to. They differ inasmuch as the Pawaian numeral takes a numeral coordinator as a prefix, and a phrase coordinator as a clitic.

For example:

Kuman

edi SUARA one tree
tree one
gak kidan SUO SUO four hungry boys
boy hungry two two
yats SUO ya abumo SUATA two men and three women
men two and women three

Pawaian

in POMI one tree
tree one
simini pe NAU ANAU four hungry boys
hungry boy two and-two
yala NAUMO al NAU APOIMO Two men and three women
man two-and woman two and-another

Pawaian Numerical Formula

\[ \text{adj(num)} = \pm \text{num co: num cop} + \text{anuc: stem} + \text{ph co: ph cop} \]

that is, a numerical adjective consists of an optional numerical coordinator filled by a numerical copula, followed by an obligatory adjective nucleus filled by an adjective stem, followed by an optional phrase coordinator filled by a phrase copula.

INTERROGATIVES

Interrogatives occur as fillers of the clause level interrogative slot. Their function is the same in both languages. They ask how, where, or why a thing is done. They differ inasmuch as Kuman interrogatives take a verbalizing suffix.

For example:

Kuman

\[ \text{I SIRATINE What is this?} \]
\[ \text{this what-is} \]
ene SIRAG$ toporatine? What would you like to buy?
you what buy?
ene din AG$0 yome Where is your axe?
you axe-your where situated

Pawaian
'apa NOI What is this?
this-is what
ono noi wetaalia What will you buy?
you what will-buy
ma kope pani inaia Where is your axe?
your axe where situated

RESPONSES

Responses occur as fillers of clause level response slots. Their function is the same in both languages. They come as a response to a question.
For example:

Kuman
OWO, i nig$ Yes it's water
yes this water
TAMAN, yag$ ed$ uug$ enabuka No, the man went
man motion house went home

Pawaian
OUI apa sa Yes it's water
yes this-is water
SE, toi pai hapol nue No, the man went home
man focus house gone

ADVERBS OF MANNER

Adverbs of manner occur as fillers of the verb phrase modifying slot. They state the manner in which an action is committed.
For example:

Kuman
ye TABIRE ed$ ogua He went quickly
he quickly motion went
gak ag$ YOBUG$ARE sugua The boy hit the dog hard
boy dog hard hit
Pawaian

á TUI petie He went quickly
tis quickly went
pe ḷu PQANA nawaue The boy hit the dog hard
boy dog hard hit

ADVERBS OF LOCATION

Adverbs of location occur as fillers of clause level location slots in Pawaian, and as fillers of location slots in verb phrases in Kuman. Pawaian adverbs fill the same slot as noun phrases. Kuman adverbs do not substitute for noun phrases in clause level slots.

For example:

Kuman

yag₄ ogua IDA The man went there
man went there
yag₄ waile ogua The man went to the garden
man garden went
na edi wiga SUG₄0 I came here
I motion came here

Pawaian

toi WENI nue The man went there
man there gone
stoi moilo nue The man went to the garden
man garden gone
ana ENI petoe I came here
I here came

ACCOMPANIMENT POSTPOSITION

Accompaniment postpositions occur as fillers of accompaniment phrase relator slots. They function the same in both languages.

For example:

Kuman

gak ye BOG₄ ogua He went with the boy
boy he with went
abumo bug₄a BOG₄ neugua The pig ate with the woman
woman pig with ate
Pawaian

pe toi POMINISOI nue The man went with the boy  
boy man with gone
al ya POMINISOI hanue The pig ate with the woman  
woman pig with ate

MOTIONAL PARTICLE

A motional particle occurs as a filler of a verb phrase motion slot.  
It does not occur in Pawaian.

For example:

na EDI wig a I have come  
I motion come
yag4 EDI ugug4 ogua The man went to the house  
man motion house went
ye ene akesuna EDI maug4 He will help you dig a  
he you help motion hole hole
perenabuka dig.

PHRASE COORDINATING PARTICLE

A phrase coordinating particle occurs as a filler of the  
coordinating slot of Kuman coordinate noun phrases. It does not  
occur in Pawaian.

For example:

bug4a YA ag4 Pig and dog  
pig and dog
sune kabe YA dikiri YA There are bananas, corn and  
there banana and corn and taro growing
me eriag4ka
taro growing
kobug4o kruo YA edi kama The white stone and the  
stone white and stick black black stick

FOCUS PARTICLE

A focus particle occurs as a filler of the focus slot in Pawaian  
noun phrases. It does not occur in Kuman. It is used to bring a  
given phrase into the spotlight of attention.

For example:

wa pe PAI h4 nawaue That boy hit the dog  
that boy focus dog hit
CONCLUSION

In the introduction to this thesis, it was stated that an effort would be made to test the validity of an hypothesis which states that the degree of relationship of two languages can be determined by the number of synonymous cognates which are found in a Swadesh 100 word list. The thesis is making no attempt to test any glottochronological claims made by Swadesh, but simply to see if a small positive lexical correlation between two languages shows also a similar correlation in a comparison of the phonological and grammatical structures of the languages.

Before coming to a conclusion, a summary of the similarities and dissimilarities will be given, and then it will be decided whether the similarities of the two languages are slight, but yet sufficient to justify the claim that Pawain and Kuman are remotely related languages.

Kuman/Pawain Similarities and Dissimilarities

Lexicon

On the Swadesh list only 8 per cent probable cognates were found. Another list of 100 words showed only 3 per cent cognates.

Phonology

The vowel phonetic segments are very similar:

<table>
<thead>
<tr>
<th>Kuman</th>
<th>Pawain</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>e</td>
<td>e</td>
</tr>
<tr>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>u</td>
<td>u</td>
</tr>
</tbody>
</table>

In Kuman the segments divide into a five vowel system, and in Pawain to a six. The sixth vowel of Pawain is rare.

Consonantal segments are also quite similar:

<table>
<thead>
<tr>
<th>Kuman</th>
<th>Pawain</th>
</tr>
</thead>
<tbody>
<tr>
<td>ph</td>
<td>ph</td>
</tr>
<tr>
<td>p</td>
<td>p</td>
</tr>
<tr>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>ŋ</td>
<td>ŋ</td>
</tr>
<tr>
<td>th</td>
<td>th</td>
</tr>
<tr>
<td>t</td>
<td>t</td>
</tr>
<tr>
<td>d</td>
<td>d</td>
</tr>
<tr>
<td>nd</td>
<td>nd</td>
</tr>
<tr>
<td>k</td>
<td>k</td>
</tr>
<tr>
<td>h</td>
<td>h</td>
</tr>
<tr>
<td>k</td>
<td>k</td>
</tr>
<tr>
<td>g</td>
<td>g</td>
</tr>
<tr>
<td>ŋ</td>
<td>ŋ</td>
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<tr>
<td>ś</td>
<td>ś</td>
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<tr>
<td>s</td>
<td>s</td>
</tr>
<tr>
<td>s</td>
<td>s</td>
</tr>
<tr>
<td>tś</td>
<td>tś</td>
</tr>
<tr>
<td>l</td>
<td>l</td>
</tr>
<tr>
<td>kš</td>
<td>kš</td>
</tr>
</tbody>
</table>
Of twenty-six segments, fifteen are common to both languages. The differences are that Kuman has prenasalized stops, and velar lateral affricates.

The presence of tone and nasalization in Pawaian makes the language sound quite different from Kuman. Twenty-four vowel contrasts, against the five of Kuman, plus a fewer number of consonants (10 compared with Kuman's 14) and the fact that Pawaian has no consonant clusters gives it a musical quality not found in Kuman. Yet the syllable patterns are identical.

Clause Structure
Equational Clauses

Demonstrative and verbal equational clauses are almost identical. Kuman however has also stative and negative equational clauses.

Predicate Clauses

The similarities between the Pawaian predicate clause and the Kuman Independent Final Clause, are quite evident. The fact that response, time, subject, instrument, object accompaniment, and predicate slots have the same distribution within the clause would suggest some sort of relationship between the languages. Also the preference of both languages for breaking utterances down into many short clauses instead of long ones suggests some sort of affinity. However, the presence in Kuman of three medial type clauses and the complete absence of them in Pawaian, makes the dissimilarities of the two languages far more prominent in any comparative study than their similarities.

Phrase Structure
Noun Phrases

As in the clause structure so also in the structure of the noun phrase. Descriptives preceding the noun in Pawaian but following it in Kuman makes the difference of phrase structure stand out. The focus marker of Pawaian reminds one of Polynesian languages rather than those of New Guinea. However, under closer study there are similarities which would lead one to believe that there could be some relationship between them after all.

The fact that the demonstrative comes first in the phrase, and the numeral comes last (excluding the focus particle) is significant. Also the way both languages fill the descriptive and quantity slots with the same type of phrases allows the possibility of relationship, though it needs to be remembered that one would expect to find
descriptive phrases in both languages, and the absence of them in one of the languages would have more significance than the presence of descriptive phrases in them both.

Other Phrases

Descriptive phrases are identical in both languages. Numeral phrases are similar, but the difference in the numbering systems of the two languages is very striking and points to the languages as being quite remote in their relationship. The coordinators in Coordinated noun phrases are again very different and indicate separateness. The accompaniment phrases are identical in structure, with both languages using postposition particles to indicate the relationship. Also we notice that time phrases are identical, but as both simply use juxtaposed time expressions, this does not hold much weight as evidence for relationship. The fact that Kuman has mobility and locative slots in the verb phrase, when Pawaian does not, and Pawaian has a negative slot which is absent in Kuman, emphasizes the differences in the languages. The one indication of possible relationship is found in the fact that both languages have the modifying adverb in the same place.

Morphology

Generally speaking, the forms of the various morphemes functioning as affixes do not show any noticeable likenesses in the two languages. Therefore to establish any hypothesis of relationship one will have to look deeper and see if there are any structural similarities.

The Verb

In the verb, we have noticed many dissimilar morphemes, but again, we can find enough correspondences to suggest some distant relationship between the languages. For example, both languages divide the universe into two aspects rather than into several tenses. Both languages have a declarative slot in the verb, both use suffixes as intensifiers, use a question affix within the declarative slot, and only use suffixes as verb affixes.

However, in case we are inclined to over emphasize these common shared features we need to remember that the differences within the verb structure are indeed great. The fact that the affixes show hardly any likeness in their form, suggests a great degree of separateness, while the absence of any medial form of the verb in Pawaian, a feature which is universal to the whole of the Eastern Highland language stock, sharply divides it from Kuman. Then also the absence of dual forms in Pawaian, and the absence of all person/number distinctions outside the first and third singular stative.
forms, makes a great structural gap between the two languages. As well as these greater differences there are also minor ones. The negative having its own slot in Kuman instead of being included in the declarative one, stative forms found in Pawaian but not in Kuman, and the presence of a future suffix in Pawaian make it impossible to see anything but the remotest relationship between the languages.

**Nouns**

Within the structure of the noun there are several differences which emphasize remotesness between the languages. In Kuman the nouns are divided into two classes according to whether they are obligatorily possessed or not. There is no such division in Pawaian. In Kuman possessives are affixed to the noun. This is not so in Pawaian. In Pawaian, however, the noun takes a negative suffix and a second order clitic which functions as a coordinator, things that are lacking in Kuman.

Even with all these differences there is one common feature in the noun structure which allows us to accept a possibility of relationship. This feature is found in the ability of the noun to be verbalized by means of a verbalizing suffix – one suffix making a statement, and another questioning it.

**Personal Pronouns**

The personal pronouns of the two languages have their differences. Pawaian has no third person pronoun, but uses demonstratives. Kuman has the personal pronoun ye for this function. Kuman makes distinction between inclusive and exclusiveness in regards to first person plural and dual pronouns – a distinction that is not made in Pawaian. Kuman uses personal pronouns as possessives whereas Pawaian has a set of possessive pronouns.

The differences are considerable, but the remarkable fact that all three Pawaian pronouns are close cognates of the Kuman ones makes it difficult to conceive of the languages as being anything but closely related. It is only the fact that all other aspects of the two languages are so different that a hypothesis of close relationship is untenable.

**Demonstrative Pronouns**

The way demonstratives in the two languages function in equational clauses are strikingly similar, though the use of a verbalizing suffix in Pawaian and its absence in Kuman suggests not too close a relationship.

**Interrogatives**

The interrogatives of both languages function the same, but Kuman
takes a verbalizing suffix and Pawaiian does not.

**Numerals Adjectives**
These have the same function in both languages but Pawaiian takes a numeral coordinating prefix and a phrase coordinator clitic, neither of which occur in Kuman.

**Focus Particle**
This only occurs in Pawaiian. Its presence suggests a different language type to that of Kuman.

**Motional Particle**
This only occurs in Kuman, and is also a significant difference.

**Phrase Coordinator**
This only occurs in Kuman as a free form particle so the difference again has significance in any hypothesis suggesting remoteness of relationship.

**Adverbs of Location**
There is a significant difference between these in the two languages as Kuman adverbs of location are modifiers in a verb phrase whilst the Pawaiian ones fill clause level slots.

**Other Parts of Speech**
All other adverbs and adjectives are the same in both languages. This is not particularly significant, however, as they are all uninflected particles. The fact that both languages mark accompaniment by a postposition does have significance though, for many New Guinea languages mark accompaniment with verb suffixes.

**Summary of Similarities and Dissimilarities**
It is profitable to summarise the previous discussion by making two lists, one of significant similarities and the other of dissimilarities.

**Significant Dissimilarities**

**Phonology**
- Tone and nasalization in Pawaian.
- Consonant clusters in Kuman.

**Clauses**
- Inclusion of stative clauses in Kuman.
- Medial clauses in Kuman.

**Phrases**
- Differences in descriptive slot.
- Inclusion of Pawaiian focus marker.
Different counting systems.
Difference of noun phrase coordinators.
Differences of verb phrase - Kuman with mobility and locative slots.

**Verbs**

No likeness in the form of the affixes.
Kuman has separate endings for medial verbs.
Kuman has dual forms.
Pawaian does not distinguish person and number in non-stative form.
Pawaian has stative form in first and third singular.
Kuman has negative slot.
Future suffix in Pawaian.

**Nouns**

Two noun classes of Kuman.
No possessive suffixes in Pawaian.
Pawaian negative suffix.
Pawaian coordinating clitic.

**Pronouns**

Kuman third person pronoun.
Kuman exclusive versus inclusive first person pronouns.
Pawaian possessive pronoun.
Pawaian demonstrative verbal suffix.

**Interrogatives**

Kuman interrogative takes verbalizing suffix.

**Adjectives**

Pawaian numeral adjective takes coordinating prefix.
Pawaian adjectives take phrase coordinating clitic.

**Particles**

Pawaian locative adverbs fill location clause slot.
Pawaian focus marker.
Kuman phrase coordinator
**Significant Similarities**

**Clauses**
- Similarity of equational clause structure.
- Similarity of Pawaian predicate and Kuman independent clause.

**Phrases**
- Demonstratives and numerals have same distribution in noun phrase.
- Accompaniment phrases identical.
- Modifying adverb in same place in verb phrase.

**Verbs**
- Both have two aspects rather than tenses.
- Both have declarative slot.
- Both have verb intensifier.
- Both have question in declarative slot.
- All verb affixes are suffixes.

**Nouns**
- Nouns in both languages take verbalizing suffix.

**Pronouns**
- Pawaian pronouns close cognates of equivalent Kuman ones.
- Demonstratives function similarly to form equational clauses.

**Examination of Hypothesis**

Let us now consider the hypothesis. For it to hold the low percentage of cognates will reflect slight structural similarities which will reinforce the statement that the proportion of cognates in a Swadesh list will correlate with the degree of relationship between two languages. Thus we will expect the dissimilarities between the languages to be great, but at the same time there will be enough similarities so that we can accept as factual that the languages are related.

As far as dissimilarities are concerned they are indeed great. The medial clauses of Kuman and the differences in their verb structure is in itself enough evidence to put the languages into different families. The fact that practically all the affixes in the languages are dissimilar in form, and that Pawaian fails to use the
complexities of person/number indicators that are found in Kuman and has no possessive suffixes in the noun, one could hardly postulate that the languages are of the same stock. Add to these the many minor differences found in the list of dissimilarities, nothing but the most distant relationship could possibly be envisaged.

The question then, is to decide whether there is enough evidence of relationship to discount chance or borrowing as the real reason for the similarities.

The answer to this question becomes obvious when we consider some very striking and sometimes unexpected similarities in the two languages. In the midst of so many differences one would only hope for slight resemblances, but to find the three Pawaian pronouns almost identical with their Kuman counterparts is so astounding that one suspects there may be some reason other than relationship to explain it. There are two reasons that could account for it. One is that there was borrowing and the other is that the similarities are simply due to chance.

Until 1960 the Kumans and Pawaians had almost certainly no contact with each other. There were two other language groups between them, and though the Pawaian ventured a long way into these other languages on trading expeditions, the closest they came to Kuman people was two days' walk away. If then, direct borrowing cannot be postulated, perhaps they both borrowed from some third language. This however is a very remote possibility. In the first instance we have evidence that these particular pronouns resist change and borrowing. This is the reason that they are included in Swadesh's 100 word list. Then also the only time they are readily lost in a language is when word taboos are in force. Word taboos come in Kuman or Pawaian society only when the word is the name of a very small child. Even then the term is only avoided when direct reference to the child is meant. When somebody else has the same name, the taboo does not come into force when referring to him. Thus we would not expect word taboo to explain the possibility of borrowing.

Could force by some dominant third language group be the cause then? Kuman is the dominant language group of its area and there is no evidence that they have ever been dominated by any other group. The Pawaian live in dense jungle. They are still semi-nomadic in their habits and were difficult to locate let alone subdue. Then, also the larger language groups to the north left the Pawaians alone because of their fear of sorcery. In the north the Pawaian are reputed to be fearsome sorcerers. This is probably due to the prevalancy of malaria
in Pawaian land. Highlanders staying in Pawaian country soon fall victim of the disease.

If then, we exclude borrowing as a factor of similarity what about chance?

In a closed class of pronouns we find that we have 100 per cent cognation as far as the Pawaian personal pronouns are concerned. The probability of chance being the factor is so remote on statistical grounds that it is absurd to even consider it.

It is not only the close resemblance of the pronouns that force us to accept the fact that the two languages are cognatic. We also have other similarities. The similarity of the phonological structure, the close resemblance of Kuman independent clauses with the Pawaian predicate ones, the identical aspect systems, declarative slots and intensifiers within the verb structures, are all strong reasons for concluding that Pawaian and Kuman are descendents of the one and the same language.

It is therefore concluded that the structural evidence found in a comparison of the Kuman and Pawaian languages agrees with the lexicostatistical evidence, that these two languages are in fact related, but only remotely so.
NOTES

1. See 'Linguistic Survey of S.W. Pacific' page 120. (In other works Wurm states Pawaian to be unrelated to the phylum, probably attributing the low percentage of cognates to chance factors).

2. According to Wurm this would put Pawaian in the same microphylum as the Eastern Highland Stock. See S.A. Wurm 'Linguistic Situation in Highlands Districts of Papua and New Guinea' page 17.

3. In the practical orthography which will be used in the rest of the discussion, tone marks are not used except when there may be ambiguity in the meaning, and the Pawaian phoneme /ɔ/ will be represented as or.

4. This terminology is taken from Longacre 'Grammar Discovery Procedures' page 35.

5. owo yes is used when agreeing in the negative, and taman no when disagreeing in the negative.

6. These symbols have the following meaning:
   - phonemically defined allomorphs
   - morphemically defined allomorphs
   - grammatically defined allomorphs
   { } morpheme class
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