

2.6. THE CENTRAL AND WESTERN AREAS OF THE TRANS-NEW GUINEA PHYLUM

2.6.1. THE TRANS-FLY (SUB-PHYLUM LEVEL) STOCK

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2.6.1.1. INTRODUCTORY REMARKS

The Trans-Fly (sub-phylum-level) Stock occupies the following areas: a) most of the Trans-Fly area of the Western District of Papua New Guinea with overlaps into the adjacent parts of Irian Jaya, b) the Fly Delta area and much of the coastal and estuarine areas and lower courses of rivers to the north of the Fly Delta as far as the eastern bank of Iviri Inlet in the Gulf District, and c) the eastern islands of Torres Strait. It constitutes a sub-phylic member of the Trans-New Guinea Phylum (see 2.5.3.3.2. in this volume).

This stock has been assigned sub-phylic status within the Trans-New Guinea Phylum in view of the aberrant nature and features of its member languages, especially of those which do not belong to the Kiwaian Family, and the relatively low number of reflexes of Trans-New Guinea Phylum proto-forms (see 2.4.1.5.5.) in them. Their frequently defective pronoun systems, the rudimentary two-gender system in many of them, the changes of the verb stems in accordance with the number of the object which is found in some of them, the changes of the first syllable of the verb forms for tense which is a feature of others, and the fact that their personal pronouns show a prevalence of set II forms (see 2.3.3.3.) (as against the typical set I forms (see 2.3.3.2.) predominating in Trans-New Guinea Phylum Languages), while object prefixes to verbs in some of them tend to show set I forms, constitute features which set them rather apart from most of the languages of the Trans-New Guinea Phylum as a whole. Also, they lack some of the features which are very widespread amongst the Trans-New Guinea Phylum languages, such as special sentence

medial verb forms (see 2.5.2.3.2.), though other typical Trans-New Guinea Phylum characteristics such as classificatory verbs (see 2.5.2.3.1.) are in evidence. All this may make it seem justified to see in them remnants of pre-Trans-New Guinea Phylum languages located in a marginal area of the spread of the Trans-New Guinea Phylum languages through the New Guinea Mainland (see 3.4.1.), but influenced by the Trans-New Guinea Phylum languages to such an extent that they can be regarded as, even if in many ways aberrant, members of the Trans-New Guinea Phylum.

The languages of the Kiwaian Family of the Trans-Fly Stock appear to have played a special role in this. They show quite strong links with languages of the Upper Fly area (Wurm 1951; C.L. Voorhoeve, personal communication) and seem to constitute a comparatively recent immigrant element into the Trans-Fly area. As a result of their contacts with the originally probably unrelated earlier Trans-Fly languages, the Kiwaian languages were influenced by the former in their typology and structure. At the same time, they and apparently also other Trans-New Guinea Phylum languages influenced these earlier languages to a point where they can now be classified as aberrant members of the Trans-New Guinea Phylum. In the light of this, the Kiwaian languages link more closely with other Trans-New Guinea Phylum languages than the other members of the Trans-Fly Stock, whereas they are at the same time, more closely related to the latter than any other Trans-New Guinea Phylum languages.

Amongst the stock-level members of the Trans-New Guinea Phylum, the sub-phyllic Yelmek-Maklew (or Bulaka River) stock-level Family (Voorhoeve 1968) appears to be more closely related to the Trans-Fly Stock than some other stocks, though the level of lexical relationship between the two is not very high as is evidenced by lexicostatistical percentages averaging around 9%. However, there are several significant typological and structural similarities between members of the two stocks (Boelaars 1950) and formal similarities of morphemes. For this reason, the Trans-Fly and the Bulaka River sub-phylum-level Stocks have been combined into a superstock (see 2.2.5. in this volume for a definition of this term), the Trans-Fly-Bulaka River sub-phylum-level Super-Stock (see 2.5.3.3.2.). The Bulaka River sub-phylum-level Family will be discussed in detail in 2.6.2.2.3. in this volume.

2.6.1.2. ESTABLISHMENT OF THE TRANS-FLY STOCK

The classification of the languages of what is today recognised as the Trans-Fly Stock has a quite complex history (Wurm 1971a), with the assignment of individual languages to certain families and other groups, and the combination of families into stocks and higher-level groupings changing several times in the light of the rapid progress of our linguistic knowledge of the area in recent years (Voorhoeve 1968, 1970; unpublished and referred to in the supplement to Wurm 1971b).

The present picture emerged as a result of extensive fieldwork carried out by Wurm in the Trans-Fly area in 1970, and though there may still be some areas of doubt (Wurm 1971a), the picture presented below constitutes a great advancement over earlier classifications. In 1973, the Waia language located in the triangle formed by the Fly and Bamu River Deltas in the south and east, and the lower Aramia River in the north, and identified by Franklin (1973), was recognised by Wurm as a member of the Pahoturi River Family in the Trans-Fly Stock.

In their work which laid the foundations to the establishment of the Trans-New Guinea Phylum, McElhanon and Voorhoeve (1970) took account of some languages now included in the Trans-Fly Stock, and recognised their membership to the phylum. This work was later extended by Wurm to other languages of the stock (see 2.4.1.5.1. in this volume).

Apart from the studies referred to above, Ray's (1907, 1923, 1931) and Riley's ((and Ray) 1930-31, Riley 1931) work in languages of the Kiwaian Family of the Trans-Fly Stock may be mentioned here.

2.6.1.3. THE CONSTITUENT FAMILIES OF THE TRANS-FLY STOCK AND THEIR LOCATIONS

The Trans-Fly Stock consists of five families, one of them subdivided into four sub-families. One of these sub-families could well be regarded as constituting a separate family within the stock (see below 2.6.1.4.) thus bringing the number of the constituent families of the stock to six.

Of these five (or six) families, the Kiwaian Family occupies much of the south-eastern and eastern coasts of the Trans-Fly area, parts of the southern (right) and northern (left) banks of the Fly Delta and several islands in it, and the coastal areas and lower courses of the rivers in the Bamu, Gama, Turama, Kikori, Urama and Era Rivers areas in the Western and Gulf Districts as far east as the eastern bank of Iviri Inlet.

The Tirio Family occupies a section of the right bank of the upper region of the Fly Delta, Sumogi Island in the Fly River, and a part of the Mituri River area.

The Eastern Trans-Fly Family takes in the Binaturi and Oriomo Rivers area and most of the country between the Binaturi and Pahoturi Rivers in the Trans-Fly area, and the eastern islands of Torres Straits.

The Pahoturi River Family occupies the Pahoturi River area and the country to the west and north-west of it, as well as, to the north of the Fly River, the corner of country bordered by the left bank of the Fly Delta in the south, the Bamu Delta in the east, and the Lower Aramia River in the north.

The Morehead and Upper Maro Rivers Family occupies the Morehead River area and much of the country to the east of it including Strachan Island, as well as the region between the Morehead and Bensbach Rivers, the Bensbach River area itself, and also the Upper Maro River area in Irian Jaya and one village far to the north of the Bensbach area.

The Moraori Sub-Family in it which could perhaps be regarded as a separate family (see 2.6.1.4.) constitutes the western-most extremity of the family and is separated from it by a stretch of country whose inhabitants speak the Marind language (see 2.6.2.2.2.1. in this volume).

2.6.1.4. COMPOSITION OF THE TRANS-FLY STOCK

The Trans-Fly Stock shows the following composition (the population figures are close approximations and based on 1970 census figures)- Arabic numbers indicate languages, and lower case letters dialects:

Trans-Fly Stock	35,000
A) Kiwalian Family	22,700
1) Southern Kiwai	9,700
a) Coastal Kiwai dialects	3,800
Southern Coastal Kiwai	1,800
Eastern Coastal Kiwai	2,000
b) Daru Kiwai	1,000
c) Island Kiwai	4,500
d) Doumori	400
2) Wabuda	1,700
3) Bamu Kiwai	4,400
a) Sisiame	2,850
b) Pirupiru	850
c) Middle Bamu	700

4) Morigi		700
5) Kerewo		2,200
6) North-Eastern Kiwai		3,700
a) Urama		1,700
b) Gope		1,300
c) Gibaio		700
7) Arigibi		300
B) Tirio Family		1,350
1) Tirio		280
2) Aturu	} ?	220
3) Lewada-Dewara		450
4) Mutum (Paswam)		400
C) Eastern Trans-Fly Family		4,700
1) Bine		1,800
2) Gidra		1,600
3) Gizra		600
4) Miriam		700
D) Pahoturi River Family		3,000
1) Agöb	} ?	1,100
2) Idi		900
3) Waia		1,000
E) Morehead and Upper Maro Rivers Family		3,310
Ea) Nambu Sub-Family		800
1) Nambu	} ?	700
2) Iauga (Parb)		25
3) Dorro		75
Eb) Tonda Sub-Family		1,470
1) Upper Morehead (Rouku)		350
2) Lower Morehead (Peremka)		200
3) Tonda		600
4) Kanum		320
Ec) Yey sub-family-level Isolate		1,000
Ed) Moraori sub-family-level Isolate		40

Note: There may be good grounds (see 2.6.1.5.1.) for regarding Ed) as constituting a separate family within the Trans-Fly Stock. In such a classification, the Morehead and Upper Maro Rivers Family would only contain the sub-families Ea), Eb) and Ec), and one would have to add:

F) Moraori family-level Isolate

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In addition to these languages, the following are located in, or adjacent to, the Trans-Fly area:

- 1) Suki, a family-level isolate of the Suki-Gogodala Stock (Voorhoeve 1970, see 2.6.2.2.1.1. in this volume).
- 2) On Saibai, Boigu and Dauan Islands off the south coast of the Trans-Fly area, a dialect of Mabuiaq, an Australian language, is spoken (Ray 1907).

2.6.1.5. INTERNAL RELATIONSHIPS IN THE TRANS-FLY STOCK

2.6.1.5.1. FAMILY-LEVEL INTERRELATIONSHIPS

The degrees of interrelationship within the individual families of the Trans-Fly Stock are quite varied, and in some cases, manifest themselves more clearly on the structural level than on the lexical.

With the members of the Kiwaian Family, both lexical and structural relationships are generally close to very close. Percentages of basic vocabulary cognates, on the basis of a 200-items list, lie mostly above to well above 50%, with the lowest figure observed being 46%.

Within the Tirio Family, there is great similarity on the structural level, but the percentages of shared basic vocabulary cognates range largely from the mid-thirties to the mid-forties only, except for Aturu and Lewada-Dewara which, with 78% sharing, could well be regarded as constituting dialects of one language. Further study may show the lexical interrelationship between the Tirio Family languages to be in fact closer.

The members of the Eastern Trans-Fly Family are quite similar in basic features of their structures as well as in quite a few structural details, though there are some differences in the latter, especially between Gizra and Miriam on the one hand, and Bine and Gidra on the other. Lexically, the relationship between the four languages is not close: the percentage figures of shared basic vocabulary cognates lie generally between the mid-thirties to the mid-forties, though further study is likely to show them to be higher. Miriam shares exceptionally low percentages, in the high twenties, with Bine and Gidra, though close to 40% with Gizra. These low percentage figures may be due to the presence of Mabuiaq, i.e. Australian, loanwords in Miriam (see 2.16.2.2.).

Of the members of the Pahoturi River Family, Agöb and Idi are almost dialects of one language, sharing about 77% basic vocabulary cognates and being near-identical in structure. Waia shares only just under 30% with both Agöb and Idi, but it contains a considerable number of loanwords in its basic vocabulary from other languages adjacent to it, i.e. Kiwaian languages and Gogodala of the Gogodala-Suki Stock (see 2.6.2.2.1.2.1. in this volume). What little is known of its structure appears to link with that of Agöb and Idi to some extent, though there seem to be some differences.

Within the Morehead and Upper Maro Rivers Family, the situation is more complex:

In the Nambu Sub-Family, Iauga (or Parb) is apparently a dialect of Nambu, and Dorro shares about 60% basic vocabulary items with Nambu.

In the Tonda Sub-Family, Upper Morehead (Rouku), Lower Morehead (Peremka) and Tonda show between 55% and over 70% basic vocabulary cognates, whereas Kanum shares only about 40% with any of these three languages.

On the family level, the members of the Nambu and Tonda Sub-families share cognate percentages ranging from the high twenties to beyond the mid-thirties, though again, the figures may well be found to be higher when further studies have been carried out. The percentages of basic vocabulary items shared by the one-member Yey Sub-Family with those of the Nambu and Tonda Sub-Families are in the mid-to-high twenties with the highest established figure of 30% sharing between Yey and Kanum - though the figures may well prove to be higher in the light of further studies. At the same time, the member languages of the three sub-families are structurally quite similar, the only important difference between them being the presence of some gender distinction with members of the Tonda and Yey Sub-Families in contrast to those of the Nambu Sub-Family.

Moraori stands both lexically and structurally rather apart: the percentages of basic vocabulary cognates shared by it with member languages of the other three sub-families are mostly in the low twenties or even below twenty - only with Yey and especially with Kanum do figures in the high twenties and low thirties appear. Lexically, it is therefore a member of the Morehead and Upper Maro Rivers Family only by virtue of a chain-relationship through Kanum and Yey. Structurally, it does also not link closely with the other members of the family, and some of its features show considerable structural and formal similarity to those of the Eastern Trans-Fly Family and to a lesser extent, to those of the Tirio and Kiwaian Families.

As has been pointed out above in 2.6.1.4. it may, in the light of what has been said above, well be that a more realistic classification of Moraori would be to assign to it the status of an independent family-level isolate within the Trans-Fly Stock.

2.6.1.5.2. STOCK-LEVEL INTERRELATIONSHIPS

The lexical interrelationship between members of different families within the Trans-Fly Stock is comparatively close, with percentages of shared basic vocabulary cognates ranging generally from the high teens to the mid-twenties. On the lexical level, a sub-division of the stock into two family-groups seems possible, one containing the Kiwaiian, Tirio and Eastern Trans-Fly Families, and the other the Pahoturi River and the Morehead and Upper Maro Rivers Families. This sub-grouping is also borne out by correspondingly greater similarities on the structural level between member families of the two respective family-groups, except for Moraori (see above 2.6.1.5.1.). The structural similarities between the members of the Pahoturi River Family and those of the Nambu Sub-Family of the Morehead and Upper Maro Rivers Family in particular are quite considerable.

2.6.1.6. TYPOLOGICAL AND STRUCTURAL FEATURES OF THE LANGUAGES OF THE TRANS-FLY STOCK

In general, the languages of the Trans-Fly Stock display a good measure of typological and structural similarity, and share a considerable number of features. On the phonological level, they all share a suprasegmental system which manifests itself in a complex stress system with rhythm principles, and in addition, the languages of the Kiwaiian and Eastern Trans-Fly Families seem to possess a two-tone system with usually low to very low functional load. The segmental phonologies are mostly quite complex; only the languages of the Kiwaiian Family have quite simple systems, and those of Bine and apparently also of Miriam of the Eastern Trans-Fly Family are also much simpler than those of the other languages, though they are more complicated than those met with in the Kiwaiian Family languages.

On the morphological level, a large number of features are generally shared. These are: the distinction of at least three numbers: singular, dual and plural in the verb morphology, with an additional trial number present either in full or at least in a rudimentary form or in traces. At the same time, the pronominal system usually shows only singular and plural forms. Only the languages of the Kiwaiian Family have forms

for all numbers, but the dual and trial forms are clearly derived from the plural forms. The languages of the Nambu Sub-Family of the Morehead and Upper Maro Rivers Family possess dual and trial forms in their pronoun system, but they are rarely used. The pronoun systems of the languages of the Pahoturi and the Morehead and Upper Maro Rivers Families (except of Moraori) are also defective in having only one form for two distinct pronouns. In the first person plural of the pronoun system of the languages of the Eastern Trans-Fly Family, inclusive and exclusive forms are distinguished, and this distinction carries over into the indication of the person with the verb. Possession is, in all the languages, indicated by the preposed personal pronouns which carry special suffixes to mark them as possessive. The presence of an ergative form is widespread, although it appears to be absent in the languages of the Tirio Family. In Moraori its presence is doubtful and in the languages of the Kiwaian Family it is somewhat rudimentary. All languages have a number of noun and pronoun suffixes to indicate local relationships. In most languages, adjuncts precede the words which they determine, although in the languages of the Tirio Family and in Moraori some adjuncts are met with which follow such words.

In the complex verb morphology, features shared by the languages include the indication of the person and number of the object with the verb though prefixes in all languages (with the partial exception of Moraori and the languages of the Kiwaian Family) and in some cases in combination with suffixes. In Moraori, the object is indicated through prefixes with some verbs, but other verbs have object suffixes or infixes. In the languages of the Kiwaian Family, the indication of the person of the object is rudimentary. To some extent, the object prefixes are subject-object portmanteau prefixes in all the languages. In addition to the partial marking of the subject through these prefixes and, especially with intransitive verbs (and in the languages of the Kiwaian Family in most verb forms), through pure subject-prefixes, all languages except those of the Tirio Family have suffixes to mark at least the number, if not the person, of the subject. Subject-person suffixes are absent in the languages of the Kiwaian and Tirio Families, in Miriam and in part in Gizra of the Eastern Trans-Fly Family, and are defective in the languages of the Morehead and Upper Maro Rivers Family, except for Moraori. In all languages except Moraori, the number of the object is indicated by suffixes (in the languages of the Tirio Family by affixes including suffixes). However the languages of the Kiwaian, Tirio, and Eastern Trans-Fly Families, and Moraori, show changes in the forms of the stems of the verbs in accordance with the number of the

object, and in some cases also with the number of the subject. In those of the Pahoturi River Family only a few rudimentary changes of this kind occur. All languages have a number of past tenses, but all of them, except those of the Kiwaian Family, have basically only one future and present. In the languages of the Pahoturi River and the Morehead and Upper Maro Rivers Families, tenses are indicated through changes in the first syllable of the verb forms irrespective of whether they are part of the verb stem, or prefixes. In addition, tenses are indicated in these families through suffixes, and through changes in the suffixes denoting the number of the subject and the object. Similar indication is to some extent present in the languages of the Kiwaian and Eastern Trans-Fly Families: in the former, tenses are denoted in part by tense forms of the subject prefixes, and in part through suffixes and tense-forms of the suffixes denoting the number of the subject. In the languages of the Eastern Trans-Fly Family, tenses are denoted predominantly through suffixes, as well as by tense-forms of the suffixes indicating the number of the subject and the object. Tense-forms of the subject-object portmanteau prefixes play only a very minor part. In the languages of the Tirio Family, tenses are denoted by tense-forms of the subject prefixes, as well as through suffixes and particles. In Moraori, tenses are indicated by tense-forms of the subject suffixes.

A very important feature of the majority of the languages of the Trans-Fly Stock is the distinction between two genders, masculine and feminine. This feature is present in the languages of the Eastern Trans-Fly and Tirio Families, and of the Tonda, Yey and Moraori Sub-Families of the Morehead and Upper Maro Rivers Family. However, in all these languages, except for those of the Tirio Family, the indication of gender is limited to the marking of the third person object with verbs, and to the subject marking of a few verbs. No gender distinction is present in the pronoun systems. Only in the languages of the Tirio Family can gender distinction be observed in the third person in the pronoun system, and in the subject and object indication with the verb.

Regarding other features of the verb, it may be mentioned that in all the languages, the negative is indicated by a particle and in most languages, except apparently those of the Pahoturi River Family, there are traces of a negative conjugation. Full negative conjugations are present in the languages of the Kiwaian and Tirio Families, and in Moraori. Imperative forms are simple in the languages of the Pahoturi River and the Morehead and Upper Maro Rivers Families, but there are several imperatives in those of the Kiwaian, Tirio and Eastern Trans-Fly Families.

When assessing the typological and structural features of the languages of the Trans-Fly Stock as a whole, it seems evident that these languages share a considerable number of them. With regard to characteristics which are not generally shared, a distinct cleavage is observable between the languages of the Pahoturi and the Morehead and Upper Maro Rivers Families (except for Moraori) on the one hand, and those of the Kiwaian, Tirio and Eastern Trans-Fly Families on the other, with Moraori siding in part with this second group. The languages of the Kiwaian and Tirio Families, and Moraori, are in some ways aberrant when looked at from the point of view of the structural characteristics of the family as a whole, and those of the Eastern Trans-Fly Family also have a few aberrant features.

The most prominent features of the first-named group are: changes in the initial syllable of verb forms for tense, no changes in the verb stem according to the number of the object or the subject (except for a few traces of this in the languages of the Pahoturi River Family), defectiveness of the mostly limited pronoun system which is characterized by the presence of only one form for two different pronouns, and simple imperatives. The absence of a two-gender system in the languages of the Pahoturi River Family and the Nambu Sub-Family of the Morehead and Upper Maro Rivers Family may be mentioned in passing. The pronouns in the languages of this first group display far-reaching formal similarity. On the phonological level, all these languages appear to lack a tonal system.

The second group is typologically and structurally less homogeneous than the first. Its most prominent features are the presence of stem changes in accordance with the number of the object (and sometimes also the subject), the absence of the defectiveness of the pronoun system which is characteristic of the languages of the first group, and the presence of more than one imperative. Moraori shares the first of these two features. A two-gender system is present in the languages of the Eastern Trans-Fly and Tirio Families, and constitutes a full system in the latter. It is lacking in the languages of the Kiwaian Family. At the same time, the languages of the Kiwaian and Tirio Families have full negative conjugations - in those of the Eastern Trans-Fly Family, only traces of it are present. Moraori also has a full negative conjugation, and it may be mentioned that the gender markers in the Moraori verb are formally identical with those met with in the languages of the Eastern Trans-Fly Family. The pronoun systems of this second group display very much less formal similarity than is the case with the pronoun systems of the first group, and they also

show little similarity with those of the first group, except for Moraori. On the phonological level, the languages of the Kiwaian and Eastern Trans-Fly Families seem to possess a two-tone system of generally very low functional load, but it appears to be absent from the languages of the Tirio Family.

Of the aberrant features of the languages of the Kiwaian Family, the following may be mentioned: a rudimentary system of indication of the person or the object by prefixes; the distinction of only two persons, speaker and non-speaker, in the verbal system (but three persons are distinguished in the pronoun system); the presence of three future tenses; the apparent absence of a gender system; and the presence of a comparatively simple phonology.

The most prominent aberrant features of the languages of the Tirio Family are the absence of suffixes to mark the number of the subject and object, and the limitation of the subject-marking to prefixes. Also, the presence in it of a full-gender system in the third person both in the pronoun system and in the marking of person with the verb is exceptional for languages of the Trans-Fly Stock.

The most striking aberrant feature of Moraori is the appearance of object suffixes and infixes (though the object prefixes characteristic of the languages of the Trans-Fly Stock are also found with some verbs) and the exclusive marking of the subject through suffixes.

An unusual feature of the languages of the Eastern Trans-Fly Family is the presence of inclusive and exclusive forms in the first person plural, both in the pronoun system and the person marking system with the verb.

The features of the Island Kiwai dialect of the Southern Kiwai language of the Kiwaian Family have been briefly described and illustrated in (III) 7.4.5.8.3.. However, for the benefit of readers who have no access to that volume III, that presentation has been given below in 2.6.1.7. as well.

2.6.1.7. ISLAND KIWAI STRUCTURAL FEATURES

On the morpho-syntactic level, the dialects of Southern Kiwai are very similar, though Island Kiwai shows by far the greatest complexity. The following is a short discussion of the structure of Island Kiwai with some remarks on other Kiwaian languages:

2.6.1.7.1. PHONOLOGY

On the phonological level, Island Kiwai, and all Kiwaian languages, are quite simple, except for their suprasegmental systems.

Consonants:

p	t	k	ʔ
b	d	g	
m	n		
	s		
w	r		

Vowels:

i	u
e	o
a	

Diphthongs: au, ou

Vowel length is absent in Island Kiwai, though frequent in Wabuda and also encountered in the northern languages.

The supra-segmental features manifest themselves in a complex stress system with rhythm patterns, and a two-tone system. The functional load of the latter is very low, and this seems to be the same in all Kiwaian languages in which it is met with (it is apparently absent from Wabuda), except for North-Eastern Kiwai (and Arigibi) where it seems to be quite high.

The syllable structure is very simple: no consonant clusters occur, and all syllables are open. Sequences of up to four vowels have been found.

Vowel-harmony is present as in most Kiwaian languages and affects the vowels of affixes, especially prefixes. It is particularly strong in Coastal Kiwai, Doumori and Wabuda.

2.6.1.7.2. MORPHOLOGY (AND SYNTAX)

The main features of Island Kiwai morphology (and syntax) are as follows:

In the morphology four numbers are distinguished, i.e. singular, dual, trial and plural. However, in the verb morphology, only two persons, speaker and non-speaker, are differentiated, e.g. n-eauri = *I see one*, r-eauri = *you(sg) [or he] see[s] one*. Only two basic sets of personal

pronouns are found, one for singular and one for plural - the dual and trial forms are derived from the plural forms through suffixes, i.e.

	sg	pl	dl	tl
1	mo	nimo	nimo-to	nimo-ibi
2	ro	nigo	nigo-to	nigo-ibi
3	nou	nei	nei-to	nei-bi

Possession is expressed through the preposed personal pronouns which often show the suffix *-ro* in the first and second person singular, e.g. *mo-ro moto = my house*. A large range of noun (and pronoun) suffixes are met with and denote a variety of local relationships as well as the ergative. Adjuncts normally precede the words which they determine, e.g. *mo pai umoro = lit. I not know*, *wade moto = good house*. (In Wabuda and the languages further north and north-east, some adjuncts to verbs such as the negative marker follow the verb, e.g. Bamu Kiwai (Sisiame dialect): *mo umoro pua = I don't know*. In Wabuda, also other adjuncts are found to follow the determined word in several instances, whereas in all other Kiwaian languages and dialects they precede them in such cases.)

The direct object precedes the verb, e.g. *nimogo gi moto pai eauri = lit. we that house not saw*. (In Wabuda, and sometimes also in Bamu Kiwai, the direct object often follows the verb).

The verb morphology is elaborate. The verb stem, and sometimes also its prefixes, undergo changes to denote non-singularity of the object, e.g. *eauri = see one*, *iauri = see more than one*, *oruso = eat one*, *iriso = eat more than one*.

Suffixes added to the verb stem indicate a number of aspects such as punctiliarity, repetitiveness and continuity, e.g. *asidim-o = keep on covering one object*, *asidim-ai = cover one object once*, *iasidim-ai = cover more than one object once*, *iasidim-uti = cover more than one object in separate actions*.

Prefixes to the verb stem denote modes of actions such as spontaneity, reflexivity, and action with something, e.g. *eauri = see one*, *er-eauri = see oneself*, *em-eauri = see, look at, one for another (i.e. look after)*, *egu = go*, *em-ogu = go for one, fetch one*, *ow-ogu = go with one (i.e. take one)*, etc.. Combinations of more than one of these prefixes are found in many instances.

Tenses are quite numerous: there are two past tenses, one present, and three futures. They are indicated by tense forms of subject prefixes, together with combinations of prefixes, suffixes and tense forms

of the affixes which denote the number of the subject. In many verb forms, tense is signalled several times, often first in a general form by the shape of the subject prefix - i.e. present, past or future only - which is then followed by the indication of a specific past or future tense. A tabular representation of tense marking may illustrate this point most clearly (S = Verb-stem):

		Present	Near Past
speaker	sg	n-S	n-S
	dl	n-S-duru-do	n-S-do
	pl	n-S-duru-mo	n-S-mo
	tl	n-S-bi-duru-mo	n-S-bi-mo
non-speaker	sg	r-S	w-S
	dl	r-S-duru-do	w-S-do
	pl	r-S-duru-mo	w-S-mo
	tl	r-S-bi-duru-mo	w-S-bi-mo
		Definite Past	
speaker	sg	n-S	
	dl	n-S-ru-do	
	pl	n-S-ru-mo	
	tl	n-S-bi-ru-mo	
non-speaker	sg	g-S	
	dl	g-S-ru-do	
	pl	g-S-ru-mo	
	tl	g-S-bi-ru-mo	
		Immediate future	Indefinite future
speaker	sg	n-S-ri	ni-do-S-ri
	dl	ni-do-S-ri	ni-du-do-S-ri
	pl	ni-mo-S-ri	ni-du-mo-S-ri
	tl	ni-bi-mo-S-ri	ni-bi-du-mo-S-ri
non-speaker	sg	w-S-ri	wi-do-S-ri
	dl	wi-do-S-ri	wi-du-do-S-ri
	pl	wi-mo-S-ri	wi-du-mo-S-ri
	tl	wi-bi-mo-S-ri	wi-bi-du-mo-S-ri

		Remote future	
speaker	sg	ni-mi-S-ri	
	dl	ni-mi-du-do-S-ri	
	pl	ni-mi-du-mo-S-ri	
	tl	ni-mi-bi-du-mo-S-ri	
non-speaker	sg	ri-mi-S-ri	
	dl	ri-mi-du-do-S-ri	
	pl	ri-mi-du-mo-S-ri	
	tl	ri-mi-bi-du-mo-S-ri	

As can be seen from these tables, the present, near past and definite past forms are identical in the speaker singular.

Habitual forms occur in four tenses: present, near past, definite past and future. Their characteristic marker is -a- which appears after the subject prefix in the present and past tenses, and after the future marker or the subject number marker in the future. The combination of the tense affixes is different in the habitual present and past tenses from that met with in the non-habitual present and past tenses. They are as follows:

		Present habitual	Near past habitual
speaker	sg	n-a-S-go	n-a-S-go
	dl	n-a-du-do-S-go	n-a-duru-do-S-go
	pl	n-a-du-mo-S-go	n-a-duru-mo-S-go
	tl	n-a-bi-du-mo-S-go	n-a-bi-duru-mo-S-go
non-speaker	sg	r-a-S-go	g-a-S-go
	dl	r-a-du-do-S-go	g-a-duru-do-S-go
	pl	r-a-du-mo-S-go	g-a-duru-mo-S-go
	tl	r-a-bi-du-mo-S-go	g-a-bi-duru-mo-S-go
		Past habitual	Future habitual
speaker	sg	n-a-S-go	ni-d-a-S-
	dl	n-a-ru-do-S-go	ni-du-d-a-S-
	pl	n-a-ru-mo-S-go	ni-du-m-a-S-
	tl	n-a-bi-ru-mo-S-go	ni-bi-du-m-a-S-
non-speaker	sg	g-a-S-go	ni-d-a-S-
	dl	g-a-ru-do-S-go	wi-du-d-a-S-
	pl	g-a-ru-mo-S-go	wi-du-m-a-S-
	tl	g-a-bi-ru-mo-S-go	wi-bi-du-m-a-S-

In the future habitual, the final suffix varies between *-ri* ~ *-go* ~ θ , with θ most common with a singular subject. *-ri* is more frequently found in non-speaker non-singular forms than in speaker non-singular ones. A few instances have been found in which in non-speaker non-singular forms, *-ri* appears at the end of the prefix combination and *(-ri)-go* after S, e.g.: *wi-du-m-a-ri-iarug-uti-ri-go* = *they will habitually speak (many things on many occasions)* = ([non-speaker subject in future form]-[future]-[pl subject]-[habituality]-[future]-[say more than one thing]-[action carried out in separate actions, one at a time]-[future]-[future-habitual marker]). This phenomenon may be interpreted as denoting emphasis on the future habituality.

Island Kiwai has a large range of different imperative forms denoting actions ordered to be carried out immediately, or in the near future, or at some future time, or repeatedly, or habitually, or as something that must or should be done, or as something whose performance is only advised and not definitely ordered. The forms differ according to the number of persons addressed. A number of permissive and conditional forms exist as well, but the detailed discussion of these forms would go beyond the scope of this presentation.

A characteristic feature of Island Kiwai and of all Kiwaian languages, is the fact that the elaboration of the verb forms as mentioned above is restricted to the affirmative. In the negative, only two basic forms occur in most Kiwaian languages, one denoting present and past, and one the future. For instance, in Island Kiwai, the verb base without any tense and subject (but with object number) affixes preceded by *pai* is used to indicate the present or past negative, e.g. *nou pai agiwai dubu-gido* = *he did not give one to the man*, lit. *he negative (give one) (man-to)*. At the same time *pai* plus the verbal noun which is formed by prefixing *k-* to the verb base, denotes the future negative. In the latter, *-go* is always suffixed to the verb base, and the number of the subject shown by the suffixes *-toribo-* = dl, *-bi-* = tl and *-potoro-* ~ θ = tl or pl before *-go*, e.g. *nimoto pai k-ogu-toribo-go* = *we two will not go* = *(we-two) negative ([verbal noun marker]-[go]-[dl subject]-[special marker])*. At the same time, *pai* + habitual present forms indicate the cessation of a habitual action, e.g. *nou pai r-a-iriso-go* *he does not eat (these things) any more* = *he negative ([non-speaker subject in present form]-[habituality]-[eat more than one]-[habitual marker])*. Omission of the suffixes denoting the number of the subject (i.e. of non-singular subjects) in such negative habitual forms appears to indicate a straight negation of the habituality, e.g. *nei pai r-a-eregedio-go* = *they do not work habitually* = *they negative ([non-*

speaker subject in present form]-[habituality]-[work]-[habitual marker]).

A comparable paucity of negative forms exists in the imperative forms: only an ordinary and a strong prohibitive are present.

It has been mentioned above that the verb stem in the Kiwaian languages undergoes changes to denote non-singularity of the object. This applies to all verb forms, and in addition, suffixes are added to the verb base to indicate duality or triality of the object. In Island Kiwai, and in all Kiwaian languages, these suffixes are -(a)ma- = dl and -bi- = tl, e.g. Island Kiwai: iauri-ama = *see two*, iauri-bi = *see three*. At the same time, the person of the object is indicated by the subject-object portmanteau prefix n- only if the speaker is the object, and the non-speaker the subject, e.g. nimoto iga-n-itamudiro-ama-ri = *will you one teach us two? = (you-two)* ([affirmative interrogative]-[speaker object]-[teach more than one]-[dl object]-[future]) (absence of other tense and subject number markers indicates immediate future and non-speaker singular subject, absence of the ergative marker from the free person marker denotes that it is the object, not the subject).

The combination of the affixes can result in quite lengthy verbal forms, e.g. ri-mi-bi-du-mo-i-odi-ai-ama-ri-go = *in the remote future, they (or you) three will definitely string two bows at a time* = ([non-speaker subject in remote future form]-[remote future]-[tl subject]-[future]-[more-than-two subject marker]-[more-than-one object]-[string bow]-[single action]-[dl object]-[future]-[emphasis]).

Of other verbal forms in Island Kiwai, only the occurrence of a number of prefixes and particles may be mentioned which appear before the subject markers (except for the incomplete action marker -og- which follows them) and denote assertion or certainty (ai-), completion of an action (tau-), incompleteness of an action (-og-), repeated action (amu-), actual performance or succession of actions (aime-), affirmative (ai-, ra-, iga-, igara-) and negative (pura-) interrogation, temporal condition (ina-), etc.; e.g. nimoto-go netewa dubu-toribo ai-n-iwia-ma-ru-do = *we two have certainly found two men* = (we-two-ergative) two (man-dl) ([assertion]-[speaker subject]-[find more than one]-[dl object]-[past]-[dl subject]); dubu-ro tau-g-arogo = *the man said* = (man-ergative) ([completion]-[non-speaker subject in definite past form]-[speak]); nei uwo-rudo ina-g-oriboa-ru-mo nei-go aime-g-iauri-ama-ru-mo = *when they awoke, they (then) saw them-two* = they (sleep-from) ([when]-[non-speaker subject in definite past form]-[awake]-[past]-[more-than-two subject marker])(they-ergative) ([successive action]-[non-speaker subject in definite past form]-[see more than one]-[dl object]-[past]-[more-than-two subject marker]).

In Island Kiwai, a number of classificatory verbs exist which function as auxiliaries and, placed after nouns, form verbal expressions. Noun + auxiliary function as a verb stem for the purpose of the addition of person, tense and other affixes, e.g. *uba-go owai* = *cause trouble* = (*bad-emphasis*) (*[come with] = do*), e.g. *ai-g-a-bi-ru-mo-uba-go-ow-ai-wado-go* = *they three were certainly repeatedly causing trouble as a habit* = (*[assertion]-[non-speaker subject in past form]-[habituality]-[trial subject]-[definite past marker in habitual forms]-[more-than-two subjects]-[bad]-[emphasis]-[with-come = do]-[repeatedly]-[habitual marker]*).

2.6.1.8. CONCLUDING REMARKS

From what has been said above, especially in 2.6.1.1., it appears that the languages of the Trans-Fly Stock contain a very strong substratum which is probably the same as one found in other language and language groups further west and north-west (see 2.5.4.2.1. in this volume). It seems likely that the original languages of the Trans-Fly area were unrelated to the Trans-New Guinea Phylum languages, and that the relationship of the present-day languages of the area to other languages of the phylum is secondary in nature and attributable to the prevailing influence of Trans-New Guinea Phylum languages upon them.

The situation of Moraori requires special attention: the presence of striking typological, structural and also formal similarities between it and languages of the Eastern Trans-Fly Family at the eastern extremity of the area covered by the stock constitutes a puzzle for which no immediate answer offers itself. Some connection with the past raids of the Kiwai head-hunters in the east, the Suki and Lake Murray head-hunters in the north, and those of the Marind head-hunters in the west and from the south may well have given rise to population movements in the Trans-Fly on a remarkable scale, as seems likely from the knowledge which we have of such events towards the end of the last century (Williams 1936). The fact that the single small Moraori speaking village (Mbur) with its 40 or so inhabitants is completely separated from the main body of the speakers of Trans-Fly Stock languages, with the nearest typological and structural relatives of the Moraori language far to the east, may make it possible to look upon the Moraori speakers as refugees from some distant place.

2.6.1. THE TRANS-FLY (SUB-PHYLUM LEVEL) STOCK

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