

2.4.3. THE RELATIONSHIP OF WIRU IN THE SOUTHERN HIGHLANDS DISTRICT TO LANGUAGES OF THE EAST NEW GUINEA HIGHLANDS STOCK

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2.4.3.1. INTRODUCTION

Since the establishment of the East New Guinea Highlands Stock (Wurm 1964), the position of Wiru within the West Central Family has been in doubt. Its most immediate neighbours are the eastern dialect of the Kewa language group of the West Central, and Imbonggo, a dialect of the Hagen (Medlpa) language group of the Central Family of the stock. They meet near the outrider north-western Wiru settlements which are on the southern foothills of Mt. Yalibu. Kewa meets Wiru along its western boundary down to the Erave River. It is isolated to the north from the Hagen language group by extensive primary forest, and to the east and south by even more extensive zones of primary forest. It is unlikely to be more closely related linguistically to any other significant language group than either of these two geographically close, but linguistically remote neighbours.

This paper presents typological and preliminary comparative formal evidence in favour of the recognition of Wiru as a regular Highland Papua New Guinea language with many of the most salient structural characteristics of languages within the stock, and sufficient probable cognates shared with languages of the West Central Family to justify the assumption that this reflects genetic relationship rather than convergence and borrowing.

2.4.3.2. SIGNIFICANT TYPOLOGICAL PARALLELS WITH LANGUAGES OF THE EAST NEW GUINEA HIGHLANDS STOCK

Preliminary comparative studies were carried out in the mid 1960's in the Eastern Family of the stock (McKaughan 1973:694-738, Bee 1973b:739-68, Kerr 1973a:769-99). Internal reconstruction of bound subject pronoun

paradigms in a dialect of the largest language of the family, the Obura dialect of Tairora, revealed a systematic internal structuring of the bound subject pronoun system which, in the light of evidence from other languages, reflected a proto-system at least as old as that from which the Eastern and East Central Families have developed, and possibly as old as the proto-language from which the majority of the families of the stock have originated (Kerr 1973b:598-624). This indicates that, as in Wiru, typical of languages of the 'nasalisation belt' in which it occurs (Franklin and Voorhoeve 1973:4.1), the forms of the bound subject pronoun system basically denote the person or the number of the subject, but not both. What seems to have been the product of extensive analogic creation stemming from the inherent asymmetry of the bound subject paradigm of the proto-language has obscured this fact in most of the daughter languages. This will be dealt with in detail in a later paper. But the most essential features of the system persist, most overtly in the East Central Family of the stock where the formal evidence shows that the personal pronoun system of Bena-bena and Gahuku is a bipolar system with two categories of pronoun first discovered and named by Young the monofocal and polyfocal categories (Young 1964:47 ff., Deibler 1963:31-5). The full significance of this dichotomy in terms of its ramification through the total grammatical system is dealt with in detail in a comprehensive analysis of Wiru grammar in process of completion for publication. Both typologically and in certain crucial formal features the Wiru bound subject pronoun system has much in common at an abstract level of deep structure with languages of both the Eastern and East Central Families. Despite substantial superficial differences the same basic system underlies the bound subject pronoun paradigms of Kewa in the West Central Family described by Franklin (Franklin 1971:39-40). Formal evidence which cannot be presented within the required limits of this summary paper indicate that the parallel is not just typological but reflects genetic relationship.

The superficially most obvious reflection of the bipolarisation of the personal pronoun system of languages within the stock has caught the attention of many linguists. Wurm noted that apart from one of the most striking characteristics of languages of the stock, the pattern of sentence-medial forms, "Another important feature almost universal among the languages of the stock is that one subject marker is found to denote the second and third person dual subjects, and one the second and third person plural subjects." (Wurm 1964:82). In other words, the contrast between 2nd and 3rd person breaks down in non-singular subject contexts. Like most of the languages of the Eastern Family within the stock, the Wiru bound subject (though not the free subject and object or free

possessive) pronoun system makes no distinction between dual and plural. But there is a consistent dichotomy of all personal pronoun systems into two sectors which are congruent with the monofocal and polyfocal sectors (Kerr 1963:157-66).¹ The polyfocal sector is characterised by the same formal feature for 2nd and 3rd person non-singular, and is characteristically associated with the vowel *i*.

The reason for the correlation between the break-down of contrast between 2nd and 3rd person in non-singular contexts and the bipolarisation of the personal pronoun system is implicit in an earlier paper (Kerr 1973b: 606-9), and will be dealt with in more detail in the monograph on Wiru grammar. It will be shown that this feature (the lack of contrast between 2nd and 3rd person when non-singular), as well as the sentence-medial subset of constructions, and another equally typical feature of languages of the stock, the benefactive construction, are all specific manifestations of the same fundamental system. This degree of systematic parallelism with respect to the most widespread and very fundamental grammatical features among languages of families within the stock, formal evidence previously mentioned, and other formal features in common with languages of the West Central Family to be cited later, favour the recognition of Wiru as an isolated member of a more extensive language grouping with a greater time-depth than that underlying the relationship between the families of the East New Guinea Highlands Stock. The existence of such extensive genetic relationship among languages too far separated in time to permit positive proof of their genetic relationship by the standard comparative methods had been suspected since the earliest classifications and been confirmed increasingly by more extensive and intensive studies since then.

Verbs in all languages of the Eastern Family fall into three morphophonemic classes according to the morphophonemic behaviour of the root vowels. Among all but one of several languages in other families within the stock for which the author had the relevant information, Gahuku and Bena-bena of the East Central (Young 1964, Deibler 1963), Kewa of the West Central (Franklin 1971), and Wahgi of the Central Family (personal communication, D. Phillips) have three basic morphophonemic classes of verbs.

Wiru also has three basic morphophonemic classes of verbs, one characterised by nasalisation of the vowel sector, which becomes a nasal consonant homorganic with a following stop when the first segment of the immediately following morphemic unit is the bilabial stop /p/ or the velar stop /k/. The other of the two smaller classes is characterised by a root final segment -tV, which has no independent morphemic status and a variable vowel with the same morphophonemic properties as the

variable vowel of two other highly functional forms. The morphophonemic behaviour of the -tV segment is similar to that of the root terminal segment -la which characterises one of the three basic morphophonemic classes (the L class) of Kewa verbs. Like the Wiru -tV segment, the Kewa -la segment is dropped with immediate imperative constructions, future tense in final verbs, and with the suffix -ma, which like the homophonous Wiru suffix -ma, attaches to the root of the first of a sequence of two verbs with the same subject, indicating that the actions of the two verbs are carried on simultaneously. It is also omitted, like the Wiru -tV segment, with medial purposive verbs. It is retained, like the Wiru segment, in verbs with simple past tense, and in benefactive constructions.

The grammatical features shared with Kewa also point to the genetic relationship of the two languages. The agentive subject of transitive verbs and the instrument are marked by the enclitic -me, "a very common Highland (perhaps proto-Papuan) typological feature". (Franklin and Voorhoeve 1973:4.5). The Wiru enclitic -pala is one of two limited coordinating forms and also marks a person in accompaniment role like the probable Kewa cognate -para with almost the same function. General interrogative constructions are marked by a sentence final particle pe as in Kewa. A probably related form fe has the same function in Binumarien of the Eastern Family, and the allomorphic variants fi and pi fill the same role in Bena-bena of the East Central Family.

2.4.3.3. THE RELIC INALIENATION OR INTIMATE ASSOCIATION SEGMENT

A relic feature of Wiru nouns exhibits the same morphophonemic behaviour as a possible cognate form in Enga, the largest language group in the West Central Family to which Kewa also belongs. It has its counterpart in many languages inside and outside the stock within the 'nasalisation belt'.

Early in the collection of data in the Wiru language group the author noted a frequently appearing, but obviously fossilised, recurring partial with the abstract form -nV as the terminal feature of nouns specifying body parts and a term with intimate person association, i.e. *ibini name*. The following are cognates of such Wiru words in other languages within the West Central Family which confirm the existence of this relic segment: W² *ibini name*; K *ibi*,³ M *mbi*, S *biki*, H *mini*; W *lene eye*: K *le*, S *leke*, H *re or de*, I *lee or lene*, E *renge*; W *kabunu mouth*: H *ne hambu*, E *kambu* both meaning *mouth*, and the following words meaning *lip*, K *abulu*, M *hambulu*, S *hambiliki*, H *hambu*; W *wane cheek*: K *pae*, M *paiyo*, S *pake*, H *pe*.

The Enga equivalent of the Wiru relic segment -nV, the segment -ngV, is an obligatory component of all kinship terms of reference, e.g. *paringi grandmother*. Since the root of three of these kinship terms

occurs without the terminal segment -ŋgV in terms of direct address, it is assumed that, at least for this sector of the language, the suffix is a viable form (Meggitt 1963).

The morphophonemic rules which determine the variable vowel of the Enga form -ŋgV are the same as those which once operated on the variable vowel in the Wiru relic segment -nV. The variable vowel becomes homophonous with the vowel of the immediately preceding syllable, unless it is a, when the variable vowel becomes e. The following additional examples from Wiru and Enga illustrate this: Wiru *timini nose*, *pono forehead*, *wagene shoulder*, *punene gall bladder*, *urine bladder*, *lamene ankle*, *tono bone*, *tatono palm of hand*, *tekene female genitals*, *kiyane vein*, *sinew*, *yomini shadow*, *spirit of living person*, *konowane lungs*, *wadini knee cap*, *lawene kidneys*, *modono ribs*, *adene penis*, *pakunu jaw*, *putigini deltoid muscle*; Enga *kingi hand*, *nenge tongue*, *mange neck*, *range shoulder*, *mongo leg*, *yumbange grandfather*, *grandchild*, *takaenge father*, *apange mother's brother*, *endenge mother's sister*, *ikiningi son*.

The same morphophonemic rules operate on the variable vowel of the three following forms in Wiru; the directional suffix -tV which immediately follows the spacial pronoun roots, and which also immediately follows verb roots, and in this context is best glossed *after*; the change of subject sentence medial suffix -lV, which indicates that the subject of the verb following in the same sentence is not the same as the subject of the verb to which it attaches; the segment -tV, previously mentioned, which is the terminal sector of the root of the class of verbs characterised by it.

Since the Enga form -ŋgV is a feature of both body part and kinship terms, we note that a terminal segment -ne resembling the relic segment -nV is a feature of terms of reference denoting kin of the nuclear family, and mother's brother: *etene*, *nine*, *wamene*, *laine*, *awene* (*someone's*) *father*, *mother*, *parallel sex sibling*, *cross sex sibling* and *mother's brother* respectively. The terms *wamene* and *awene* have a root sector which can stand alone when used in direct address, *ame* and *awa* respectively. Grounds for correlating this terminal form -ne with the personal possessive suffix -nE⁴ and the relic segment -nV must be left for another paper.

2.4.3.4. PERIPHRASTIC VERB EXPRESSIONS

Periphrastic verb expressions are characteristic of languages within the East New Guinea Highlands Stock, e.g. *Bena-bena* (Young 1964:78 ff.). An initial uninflected word which is the lexical nucleus of the expression and is commonly limited to these or derived expressions, is followed by a verb root which is essentially a dummy root, with little if any lexical function, to which attach regular verb affixes. Such roots, which are

limited in number, also function as regular verbs in non-periphrastic constructions in which they are both the lexical and formal nucleus of the verb expression. In Wiru, with very few exceptions, the roots are *tV-* and *V-*, two of a very limited set of verbs with a variable root vowel, which as independent verbs mean *to do* and *to utter* respectively. In cognate periphrastic expressions in languages within the West Central Family a verb tentatively reconstructed as **pi-* *to do* equates with the Wiru verb *tV-*. Wiru *V-* *to utter* has its counterpart *la* *to speak* in periphrastic constructions in Kewa. Where in the following examples of cognate expressions a form in another language seems to be a cognate of the uninflected Wiru word of the periphrastic construction, but is not listed in the available information with a following verbal form, it is listed as an independent word at the end of the set of cognate expressions. Many of the Wiru periphrastic expressions, as in other languages, are impersonal, though a person functioning as a pseudo subject may be added to the expression, e.g. *yaa toko it is shameful, there is a sense of shame* (literally *shame does*), *no yaa toko I feel shame*.

- 1) *W kau toko it is dry*: K *kapu leae*, WK *kapu ta*,⁵ M *ke'pi*, S *hapu la:me*, SM *kapu*, I *kapu*, E *sapu*.
- 2) *W tape toko it is fine (weather)*: K *pani pea*, M *pen*, I *pana* or *panyu*, E *paina*. The Wiru word *tape* is possibly a combination of the word *ta* *land, space, rain*, and a terminal segment related to the initial segment of the uninflected words cited above.
- 3) *W keda toko it is heavy*: K *kedaa pia*, M *kend pi*, H *genda bi*, I and E *kenda*.
- 4) *W tete toko it is painful*: K *rere pia*, H *dere*, I *tete*, M *ter* which mean *pain* and E *tete abrasion*.
- 5) *W yaa toko it is shameful*: K *yalaa pia*, M *sal pidl*, S *yalæ pi-*.
- 6) *W yene toko there is sickness*: K *yaina pi*, E *yaini pingi*, M *sen sickness*.
- 7) *W tege toko it is wet*: K *reke leal*, WK *seke pia*, M *seke rana laapo*, S *tenke la:la:me*, E *tombe renge*.
- 8) *W ake tanea it is white* (literally *white is done*): K *kaake pia*, S *hake pa:la:me*, M *akipi* or *akepi*.
- 9) *W totono oko he coughs* (literally *he utters a cough*): K *koro ta*, M *ot ke*, S *hoto ala:me*, H *ko la*, I *koto laa*, E *koto reramo*.
- 10) *W topo toko he exchanges (goods, words etc.)*: K *ropo pa*, M *top pi*, I *topo pii*.
- 11) *W naga toko he files something*: K *naga pa*, M *nanga pi*, E *nanga pingi*, I *nanga*.
- 12) *W kitu toa kako it rubs itself (against a pole)*: K *kiru pia*, H *duru bia*, E *kindu pingi* which all mean *he scratches someone*.
- 13) *W nunu oko he kisses someone* (literally *he utters a kiss*): K *nunu laa*, S *nunu pi-*, I *nunu pingi*, E *nunu pingi*, M *nunu*.

2.4.3.5. KINSHIP TERMS

The substantial percentage of Wiru kinship terms which have probable cognates in languages of the West Central Family is reminiscent of the

situation in the Eastern Family where Bee (1973b), after examining some 1,000 sets of words from all languages of the family, found only 60 fair sets of cognates. Among them an unusually large percentage were body part or kinship terms.

In Wiru and languages of the West Central Family the root of some kinship terms differs according to whether the kin specified by it are being addressed or referred to. In some lists below probable cognates from Fasu (F) and Foe within the 'nasalisation belt' but outside the West Central Family will be added at the end of a given series.

14) W atai *father* (a and r):⁶ K aaraa (r), M (Megi) ara, S ateke, E takaenge (r), F ata (a). 15) W āua *mother* (a): K ama, M am, H āya, I ama, E mamea, F ama, Foe hūa (all terms of address). 16) W nine *mother* (r): K agi, M ingi, M (Augu) anji, M (Megi) engi, S inkiki, H ūdya, I agini, F kaiya (all terms of reference). 17) W māe *father's brother* (a and r), māeo (a): K mai, M mā, S mai. 18) W ame *parallel sex sibling* (a), wamene (r): K ame, M ame, WM hame, S hameke, H hamene, I amene, E kaimeo (a), kaimeingi (r), F hame, Foe wame. 19) W awa *mother's brother* (a), kawa or awene (r): K awa, H ayuwa, I auwiya, E awea (a), apange (r), F auwa (a and r), Foe abiya. 20) W papa *mother's sister* (a and r), *father's brother's wife*: K papa (a and r) *mother's sister* and *father's brother's wife*, M pap *father's brother's wife*, I papa *father's brother's wife*, E pape (a) *mother, mother's sister*, F papa *cross-sex sibling*. 21) W kaua (a and r) *grandfather, grandchild of male ego, father-in-law, son-in-law*: K kakua (a and r) same range of function as Wiru kaua, E uase (a) *grandfather, grandchild of male ego, very old male affines of first ascending generation, very young female affines of first descending generation*, F kaua (a and r) *grandfather*, Foe tāūwa *grandfather*. 22) W kale *reciprocal term between male ego's brother's wife and female ego's husband's brother*: K kate same function as Wiru term. 23) W aali *husband* (r) aana or kaane (r) alternate terms for *husband*: K aani, M oli or ol, S haliki, H agalini, E akaringi. 24) W aali *man*: K ali, WK aa, M ol, NM aadi, S hali, H agali, I akali, E akari.

The Wiru and Kewa kinship systems not only have a substantial number of terms in common, but are virtually congruent systems.⁷ The only major difference is the use of a single root ame in Wiru in the term for both male and female parallel sex siblings. In Kewa as in Enga the cognate root is the stem of the term or terms applying to male parallel sex siblings, while another root denotes female parallel sex siblings.

The cognate terms kaua and kakua⁸ in Wiru and Kewa respectively have the same wide range of function. Within this range they are used reciprocally between a grandfather and his grandchildren, and between a father-in-law and his son-in-law. The equivalent female terms W aue and

K aya are almost certainly cognates.⁹ Their range of function is equivalent to that of the male terms. Within this range, like kaua and kakua, they are used in address reciprocally between a grandmother and her grandchildren, and between a mother-in-law and her daughter-in-law. The same female roots, like the male roots, are used in referential terms. In referential use the Wiru female root aue attaches a prefix-like element k as in anu kaue *my grandmother, my mother-in-law*, etc.

The use of the same root in terms for cognate kin of the G+2 generation and affinal kin of the first ascending generation (G+1) is reminiscent of the kinship terminology of languages of the Eastern Family which stems from the proto-language (Kerr 1973a:798).¹⁰ A similar system is a feature of the Kuman kinship system of the Wahgi language group of the Central Family (Reay 1959:xv-xvi). It is also a feature of the kinship system of the Daribi, outside the stock and separated from the Wiru to the west by an extensive zone of primary forest. The phoneme sequence wai when nasalised, wāĩ, denotes (within an extensive range) father-in-law and son-in-law. The same sequence with a high tone (among other extended usages) is used between and for a grandfather and his grandchildren (Wagner 1967:176-7). A relic of this feature is also apparent in the Enga kinship system where the terms (address and referential) used between and for a grandfather and his grandchildren are extended with a male ego to very old male affines of the first ascending generation, and very young female affines of the first descending generation. Similarly the terms of address and reference used between and for a grandmother and her grandchildren are extended with a female ego to very old female affines of the first ascending generation and very young female affines of the first descending generation (Meggitt 1963:193,195). With reference to the difference in tone of the segmentally identical Daribi kinship roots cited above, evidence from Tairora, in the Eastern Family referred to above, shows that different closed system forms which almost certainly derive historically from the same form have over time come to differ by the development of different tone patterns. Specifically, the identity of the rather irregular 1st person singular and 3rd person singular bound subject pronouns of pattern 4 paradigms (Kerr 1973b:615) almost certainly indicates their origin from the same historic bound subject form. A reasonable hypothesis has been suggested to account for this. According to Vincent (personal communication), however, these segmentally identical 1st person singular and 3rd person singular bound subject pronouns in combination with the verb root produce verbs with identical segmental form but different tone patterns.

In the Eastern Family the difference in usage (stemming from the proto-system) of the same root for the term for grandfather on the one hand,

and the term used reciprocally between a daughter-in-law and her parents-in-law on the other hand was achieved by multiple classification of the root within a morphophonemic classificatory system which recognised three classes, a glottal class symbolised by root terminal Q (i.e. ?), a nasal class symbolised by root terminal N, and a vowel class symbolised by root terminal V and in effect morphophonemically unmarked. These three morphophonemic classes were features of the proto-language, though the morphophonemic system was only viable in one of the two major subgroups of the family (Bee 1973a:230 ff. and Bee 1973b:739 ff.).

Multiple morphophonemic classification of the same root with consequent derivation of more than one kinship term was also a feature of the proto-roots *Waa- and *naa- which as V class roots signified with their suffix (which reflected the morphophonemic classification) *older brother* and *older sister* respectively, and as Q class roots with their suffix (which reflected the morphophonemic classification) signified *husband* and *wife* respectively. It now seems that the same two roots basically denoted *man* and *woman* respectively. Outside the kinship system the morphophonemic classification was essentially (as would be expected) entirely arbitrary, but within the kinship system it seemed to have semantic overtones, V class kinship terms denoting a superordinate category and Q and N class kinship terms a subordinate category of kin. However, there is evidence that forms other than kinship terms may also be involved in multiple classification with resulting shift in lexical function, e.g. the Gadsup form -uka (Frantz 1973:428-9).

In the light of the above we note that the term for *husband* in languages of the West Central Family is the same as the term for *man*, except for the addition of a relic form of the type -kV, -nV or -ngV according to the language. The single term aali denoting both *husband* and *man* in Wiru is a cognate of the root sector of the terms in the West Central Family of languages. The difference between them is not registered by a relic form in Wiru. However, in Kewa, whose kinship system is so remarkably congruent with the Wiru kinship system, the difference in the term for *man* ali, which is a reflex of a putative West Central Family proto-term *akali, and the term for *husband* aani involves the replacement of the medial consonant l of the former term by the nasal consonant n in the latter term. A similar process may underly the relationship between the Wiru term aali, which most commonly and specifically denotes *man*, and the root of the referential term for *husband* in Wiru, aane. A similar type of formal relationship exists between the term for cross cousin of either sex and the term used between sisters respectively in the following paired examples: K aki : ai, M haki : he, I akini : aini, E kakingi : kainingi.

This type of formal relationship between two terms which obviously share a semantic component is typical of another closed system set of terms, personal pronouns, free and bound. It is a feature of languages in the Eastern, East Central, West Central and Central Families of the East New Guinea Highlands Stock. The formal-semantic relationship of this type is a feature of the 1st person singular and 1st person plural pronouns of the monofocal sector, and the 2nd person dual and 2nd person plural, 3rd person dual and 3rd person plural pronouns of the polyfocal sector of the personal pronoun system. It is illustrated by the following examples: Eastern Family: Waffa free personal pronouns 1st person singular and 1st person plural respectively: long subject forms *nneenno* : *teenno*, short object forms *nni* : *ti*, short subject forms *nna* or *nne* : *ta* or *te*. East Central Family: Bena-bena free personal forms 1st person singular and 1st person plural respectively *nani* : *lali*. Similarly in Kamano *nagra* : *tagra*, in Kanite *nakaya* : *takaya* and in Siane *namo* : *lamo*. The corresponding 2nd person dual and 2nd person plural free personal pronouns in the same languages are: Bena-bena *letali* : *lenali*, Kamano *tanagra* : *tamagra*, Kanite *tana'kaya* : *tamakaya*. The 3rd person dual and 3rd person plural pronouns for the last three languages are similarly *etali* : *enali*, *yanagra* : *yamagra*, and *ana'kaya* : *amakaya*. In Wahgi of the Central Family in which the free personal pronoun system, rather atypically, distinguishes between inclusive and exclusive 1st person non-singular, the semantic-formal correlation obtains between dual and plural number pronouns for all persons. Thus 1st person inclusive dual *kilip*, plural *kinim*, 1st person exclusive dual *kil*, plural *kin*, 2nd and 3rd person dual *elip*, plural *enim*. In Kewa of the West Central Family we find the same feature: 2nd person dual *nipi*, plural *nimi*, 3rd person dual *nipu*, plural *nimu* in the free personal pronoun system, and in the bound subject pronoun system the following example from the present tense set II paradigm typical of all paradigms: 2nd and 3rd person dual *-tepe*, 2nd and 3rd person plural *-teme*. The same type of formal-semantic relationship is exhibited by the 1st person singular and 1st person plural free personal pronouns of Wiru *no* and *toto* respectively.¹¹

This feature of personal pronoun systems in Wiru and languages of the East New Guinea Highlands Stock is highlighted since it obviously plays an important part in the derivation of semantically related forms, at least within closed systems, and must be understood if effective comparative studies and reconstruction of proto-forms are to be carried out within and probably outside the stock. The significance of this feature is dealt with in detail in the forthcoming monograph on Wiru grammar.

It is equally important to be aware of the terminal relic form of body part and kinship terms, which appears as *-nV* in Wiru, and in other languages within and close to the West Central Family as *-nV*, *-kV* and *-ngV*.

The system underlying these relic forms appears to have gone through more than one cycle of viability, fossilisation and reviability, as illustrated by the following two sets of cognate words, typical of others.

skin: W *yogele*, K *yogale*, E *yonge*, S *yonkeleke*

mouth: W *kabunu*, K *abulu*, E *hambu*, S *hambiliki*

The same type of process involving the bound subject pronoun system of the Eastern Family has gone on within at least one daughter language, Tairora (Kerr 1973b).

From these two sets of cognates it would also seem that a form *-lv*, possibly a morphophonemically conditioned variant of the more common form *-nv*, should also be recognised as a possible relic form belonging to the same system as the *-nv*, *-kv* and *-ngv* relic forms in determining proto-terms in languages of the West Central Family and contiguous zones.

Another relic form which should also be kept in mind in future comparative work is possibly reconstructible from two proto-West Central words, **pu.i.NV liver*, and **wa.i.NV shoot for propagating plant species*. The proto-word **pu urine* with its virtually unchanged reflex in all daughter languages and also in Wiru, together with the Wiru word *punene urine bladder, gall bladder* (an innovation peculiar to Wiru) points to the fact that the proto-word **pu.i.NV* was a compound descriptive word (as indicated by its break-up through the interposition of full stop marks) meaning *source of the urine*. Similarly **wa.i.NV* probably meant *source of the plant species, e.g. sugarcane*.

From initial observations it seems probable that these relic forms and their association with kinship and body part terms stem from a system whose underlying basic function, which can only be partially captured by the very general term *source*, manifested itself in both agentive and possessive constructions. It is well known that 'agentive' and 'genitive' have much in common functionally and in that the two roles are commonly indicated by the same or similar formal devices. This will be dealt with in a later paper.

2.4.3.6. OTHER WIRU TERMS WITH PROBABLE COGNATES WITHIN THE WEST CENTRAL FAMILY

In conclusion, to justify recognition of a genetic relationship, however remote, between Wiru and the East New Guinea Highlands Stock, we cite the following terms with probable cognates within the West Central Family. The full set of cognates will not be listed since this can be determined from Franklin's paper. However, where a cognate exists in Kewa it will be cited with the Wiru word. Failing such a cognate, a cognate from another language, preferably Enga, will be cited. Where pertinent,

a comment may be made to explain the wider implications of the set of cognates. The examples will be numbered consecutively from the last set of cognates cited in a previous section.

25) *Arrow, bone tipped*: W tapulu, E sapula. 26) *Ashes with glowing coals*: W laga, K taga. 27) *Baler shell*: W tame, E tame. 28) *Bridge* (log lying on ground or spanning small gully): W yoto, K toko, M to. 29) *Buttock*: W tene-lono (means *backside*; tene also functions as an enclitic in certain place names, whose root specifies a distinctive feature of that place, e.g. Kege-tene *place of mud*, Lota-tene *place of the sweet salt water*), K re. 30) *Clothing*: W mamina, E mamini. 31) *Ear*: W kale, K kale or ane. 32) *Fire*: W toe, M sawe. 33) *Food (vegetable)*: W nee, E nee. 34) *Hail*: W tadali palene, E tandake kapa (the Wiru expression is obviously a compound descriptive expression: tadali is probably a combination of the word ta which refers to personalised space, manifested as one's place of citizenship, the source of rain which fertilises crops etc., plus ali, the Wiru term for *man*. The second word palene possibly has for its terminal segment the expression lene which means *eye* in Wiru. The phone n, which is now a component of the prenasalised stop represented orthographically as d in tadali, may be an example of a feature of rasalisation functioning as a relator of an item and its personalised source.) 35) *Handle*: W tedene, K ede, E endenge. (The Kewa and Enga words establish fairly conclusively that the Wiru word tedene carries the relic form -nV. The term handle clearly implies a source-item relationship.) 36) *House: a lean-to overnight shelter etc.*: W tale yapu, I yapata or tuli, E tuli. (This type of house is built as a dream house during an overnight stop.) The Wiru expression tale pitiko *it perches for the night* is a periphrastic expression which indicates that before its more specific use as a dream house, the expression tale meant a temporary shelter, and possibly a rain shelter. As already noted the word ta means *rain*. The word for rain in Huli is dalu and could be related to the Ipili and Enga terms tuli. The Ipili alternate expression for *lean-to hut* yapata could possibly consist of two units, yapa, a cognate of Wiru yapu *house*, for which there is now no independently surviving cognate in Ipili, and the form ta. The proto-word for *rain* in the West Central Family is probably *tai.) 37) *Instructions*: W mane, E mana. (The Wiru term mane also means *incantations*.) 38) *Moon*: W tokene, K eke. (The cognate terms in the other languages suggest that the Wiru term carries the relic form -nV.) 39) *Mound (sweet potato)*: W modo, E mapu mondo. (The Wiru term means sweet potato, but occasionally refers to the mound in which it is planted.) 40) *Mountain*: W kati, K kari. (The Wiru term is used only with named mountains, e.g. kati Yalipu Mt. Yalibu. Note that intervocalically the Wiru phoneme /t/, except in a few limited vocalic environments, is manifested by the phone

flap ʔ.) 41) *Paradise: Bird of Paradise species*: W baua, K bakua. (Note the same intervocalic loss of k in the words for *grandfather* W kaua, K kakua.) 42) *Pit-pit: wild species*: W kabe, I kambe, M kombas. 43) *Poison*: W tomo, K romo. 44) *Pole: main pole of house*: W pigi, E pingina. 45) *Rain*: W ta, K yai. (Note that proto-alveolar and velar stops preceding the vowel sequence ...a(C)i are commonly palatalised in the daughter languages of the West Central Family.) 46) *Sap*: W page, E ipange. (Wiru page also means *semen*. It is probably related to the first word of the Daribi expression *page-bidi*. Wagner translates *page-bidi* literally as *base or cause-man*. It expresses the relationship of a man to his mother's brother. The Wiru term strengthens Wagner's arguments for the type of relationship which exists between ego and kin on his mother's side represented by mother's brother. The same type of structure postulated by Wagner for Daribi society (Wagner 1967) is typical of Wiru, and is amply confirmed by the Wiru exchange terminology.) 47) *Scar*: W kodo, K kodo, E kombe. (Comparison of the Wiru and Kewa cognates kodo ([kondo]) with Enga kombe suggests that they may carry another relic terminal segment consisting of a prenasalised stop plus a variable vowel. Words in Wiru which might carry such a relic segment are: *tabe skin, bark, kalabe collar bone, tobou head, skull, wago head, ege little finger, tatigi second finger, pogi wrist, kapidi ear, ogo nail, claw*. Other Wiru words with the -nV relic segment not listed previously include *pagini nostril, kagono depressed area between shoulder and neck, mukitini ridge of nose, pepetene knee cap, kotomane section of body from neck to upper biceps area, tigini trunk of body*.) 48) *Smoke*: W lodo, K lodo. 49) *Tobacco*: W toko, K soko. 50) *Top*: W tali, K trale. (Wiru tali refers to *surface of water, back of animal, etc.*) 51) *Urine*: W puu, K pu. 52) *Wealth*: W kamo, M homa, E kamongo. (The Enga term means *rich man* and has for its Wiru cognate *kamo-ago* which attaches the male clitic -ago to the term for *riches, valuable goods*. It would seem from this example that the Wiru enclitic -ago ([ango]) *male person* is a reflex of a term in the proto-West Central language.) 53) *Wind*: W pupulege popokako *the wind blows* is a verb expression in which the verb stem popoka- probably consists of the reduplicated segment po and the stem formative -ka. The following are cognates of po : K poo, SM ope, and possibly E pyapu. The Wiru periphrastic expression ipo oko *he whistles* (literally *he utters a whistle*) probably carries the same form. The Wiru term for *spirits of the dead* ipono is possibly derived from ipo by the addition of the now relic segment -nV. Interrogatory communication with the spirit of a recently dead man is said to be carried out by a form of whistling communication.) 54) *Wings*: W pawena, K popaa, S popaake, H babagane, E papa. (From this set of cognates it seems that the terminal segment -na may be a variant

of the relic segment -nV.) 55) *Flame*: W itipono oko. (This Wiru expression is a periphrastic verb expression which means *flames form, it flames*, and may account for the terms for *tree* and *fire* in the dialects of Kewa and South Mendi, which are unique to these languages within the West Central Family. The proto-term for *tree* may be *iti reflected by M ti, N iz, S ri, H iria. From this we interpret Wiru itipono oko as originally iti ipono oko which would mean literally *the spirit of the tree speaks*. The term for *tree*, particularly a tree ready to be used as firewood, and the term for *firewood* are commonly related to the word for *fire*. The proto-word for the West Central Family would seem to be *iti.ta, which combines a terminal element -ta with the term for *tree* *iti. From this it is suggested that the Kewa and South Mendi terms for *tree* and *fire* may have been derived from a compound expression more transparently reflected by Wiru itipono (i.e. iti ipono), *tree*: EK repuna, WK repena, Pole (SK) repena, SM tepon. *Fire*: WK repena, EK repona.)

The following are non-nominal Wiru words (verbs, attributives, etc.) with probable cognates in languages of the West Central Family. All probable cognates will be cited.

56) *Good*: W epeteko, K epe, M epe, S epeke, E epe. (The Wiru term is a verb combining the root epe with the now fossilised -tV segment which is a viable feature of a substantial class of active verbs in Wiru, and a probable fossilised relic among a substantial number of other active verbs. The Sau term epeke indicates that the relic form, which has characteristically been associated with Sau body part terms as in hambiliki *lips*, kerake *ear* and kinship terms as in hameke *parallel sex sibling*, is also a feature of verb-like terms. It may well parallel the function of the Wiru verbal form -tV which is a morphophonemic classifying device, fossilised in such verbs as kete- *to shut*, lutu- *to tie in bundle* (cf. Wiru lu *bundle*), etc., and still viable in others such as witi- *to strike*, mete- *to give*, yate- *to listen*, etc. It should be recalled that the other of the two marked classes of verbs, among the basic set of three classes established morphophonemically, is marked by the feature of root vowel nasalisation in Wiru. There is only a very limited set of roots which stand alone without any verbal inflection in attributive function in Wiru, among them the size roots tube *big*, de *small*, nate *small*, ludu *long*, tall and the root epe *strong*. All occur in construction with the male person enclitic -ago or the male person root aali. The roots tele and epe in such construction yield a relic form k and n respectively, telekali and telekago *strong man*, epenali *a man in his prime*. The size roots yield no such relic form, tube-ago, tube-ali (usually elided to tubago and tubali) *big man*, de-ali, de-ago *small man*, nate ali *small man*. Such relic features should be investigated carefully in all

languages in any attempt to correlate the relic devices and their probable classificatory function in the various language groups inside and outside the stock. It is interesting to note how widely forms specifying 'size' and 'age' constitute a unique subset of forms, sometimes in affixial association with nouns (e.g. Tairora and Gadsup in the Eastern Family of the stock and Kunimaipa of the Morobe District). 57) *New, recent*: W pene. *Fresh, juicy*: W wenea, M wene, S panake, I wenene, E enenge. (It is fairly evident that the last three languages carry the relic segment in their term for *fresh* and *juicy*, further evidence of the extension of the morphophonemic 'classificatory' system represented by these forms beyond the limits of the nominal system of this group of languages.) 58) *Big*: W adaa-, K adaa, M ondo or ando, I ada or adane, E adake. (The Wiru form is the root of a verb meaning *to be sufficient, to be big enough*. Note the recurrence of a terminal 'relic' form with the Ipili and Enga words.) 59) *Big*: W tube ([tumbe]), E timbu or timbuni. (Again note the 'relic' form with Enga timbuni.)¹² 60) *Long*: W ludu, K adaalu, I luu, H lu or luni, E ronde. (The Kewa term possibly combines the word adaa with the form lu. The regular Kewa and Mendi cognates of Wiru ludu are probably rudu and turdu respectively, although both mean *short*. Wiru ludu and tiginu *long* and *trunk of body* respectively, both also are used to denote a length of timber etc. Wiru tiginu by another extension of its basic function also means *short, a short section*. This suggests that it is possible to reconcile the opposite lexical function of the Wiru word ludu *long*, and the Kewa rudu *short*.)

2.4.3.7. ACTIVE VERB EXPRESSIONS

61) *Eat*: W naa-, K na-, M ne, S nala:me, H na, I naa, E nenge. (The Wiru verb as in most of the other languages means also *to drink, to bite* and *to burn*.) 62) *Stand*: W ka-, K reka, M tika or tega, H heya, E katenge. 63) *Shake, sprinkle*: W tada-, K rada la, M tandale, I tanda laa. (The lexical nucleus of this expression could derive from the proto-term for *rain*. The Kewa and Ipili terms would seem to be periphrastic verb expressions, which favours the interpretation of tada as possibly deriving from the term for *rain*.) 64) *To speak*: W āwa oko, K agaa la. (The Wiru expression is occasionally used with the meaning *to speak* (literally *to open the mouth and utter*). The first word āwa is a nasalised root class verb ā-. Such a root followed by the common verb stem formative suffix -ka would yield the verb stem aga- ([aŋga-]). This stem plus the action enclitic -le would yield agale *speech* which is the uninflected word of the more common Wiru expression *to talk agale oko* (literally *speech he says*) which is formally closer to the Kewa expression agaa la.) 65) *To dance*: W kali mali toko, K matya ta, M ti mol le, H mali lia, E mari ringi.

2.4.3.8. NUMERALS AND OTHER TERMS

66) *Three*: W *tebolo*, K *repo*, M *tep* or *tepo*, S *tepo*, H *tebira*, E *tema*. (The proto-term underlying these forms is probably a compound word combining a term for *one* and *two* (a common mode of signifying *three*).)

67) *One*: W *odene* ([*ondene*]) in the non-body part count system, *ege* ([*enge*]) in the body part count system. (In a system which also counts (separately from the body part system) in sets of five by the digits of the hand and feet, and which in the body count system begins and ends with *ege* (*little finger* on the left and right hand respectively), it is not hard to see how *odene* can be reconciled with Ipili *ondene five* and *ege* reconciled with the possible Enga cognate *maenge five*.)

68) *Yesterday*: W *abela*, K *abala*, M *ombolo* or *ambelə*, S *ambanetu*. (The terminal segment of the Sau term may point to another type of relic form.)

69) *Yes*: W *ēe*, K *ee*, M *ee*, I *ee*.

70) *Breast*: W *adu*, K *adu*, M *ond* or *ondu*, E *andu*.

71) *Flying fox* or *large bat*: W *kaima*, K *kaima*, M *yakeim* or *kem*, S *dukai*, H *kamia*.

2.4.3.9. CONCLUSION

Future comparative studies in the West Central Family, for which Franklin has laid the foundations, must be continued to establish the sound correspondence sets by which to establish a solid core of proto-words. Given this, it may be possible to prove by orthodox comparative methods that Wiru is genetically, but remotely, related to this group and in consequence to the East New Guinea Highlands Stock. Meantime the evidence cited and discussed above tends to justify the conclusion that Wiru has sufficient structural and lexical features in common with such languages to justify its inclusion with them as a typical Highland Papua New Guinea language.

N O T E S

1. The following corrections should be made to chart 3 of this article: 3rd person dual should be *kita*, and 2nd and 3rd person dual and plural should be *kiwi*, although in many contexts the form *kini*, basically a free possessive personal pronoun, functions as a subject pronoun.
2. The following abbreviations are used for language names: W Wiru, K Kewa, M Mendi, N Nipa, S Sau, H Huli, I Ipili, E Enga.
3. Wiru and Kewa *b* represent a prenasalised stop *mb*. All voiced stops in Wiru are prenasalised.
4. The vowel of the possessive suffix *-ne* is *e* following a syllable with the vowel *a* or the vowels *e* and *i*. It is *o* following a syllable with the vowel *u* or *o*.
5. Where it is necessary to indicate a dialect, following Franklin, they will be indicated as follows: WK West Kewa, SK South Kewa etc.
6. The use of a term in address is indicated by (a) and in reference by (r).
7. The author undertook a detailed comparison of the two kinship systems during a post-graduate study programme with the East West Center, Hawaii.
8. The same sound correspondence is involved in the word for a bird of paradise species: W *baua*, K *bakua*.
9. The vowel sequence *aua*, *aue*, or *auo* in Wiru, both as the segmental phonemes comprising a morpheme, or as a submorphemic sequence within a word, is characterised by intensely constricted articulation between the

initial a and the following u with both velar and palatal involvement. A person hearing such a sequence for the first time might well record it with either a transition k or a transition y between the two vowels. There is also strong labialisation following the release of the initial au to the final vowel. The root form aua may underlie the terms for *mother*, *mother's brother*, and the grandparental and parent-in-law terms in Wiru.

10. In Wiru and Kewa these terms also specify affinal kin of the Go generation linked to ego, male or female, by two marriage bonds, as well as other affinal kin. The significance of this in the light of features in the deep structure of the grammatical system is touched on in the monograph on Wiru grammar currently being completed.

11. This type of formal relationship between personal pronouns with a shared semantic component in free personal pronoun systems of languages of the stock was first noted and described some time ago in an unpublished manuscript by H. Kerr 'Free Personal Pronoun Systems with Trichotomous Number Dimensions in Languages of Highland New Guinea' (Bibliography of the Summer Institute of Linguistics, New Guinea Branch, 1969).

12. The Enga word timbu or timbuni *big* evidently carries an optional terminal segment which may equate with the relic segment dealt with previously. The close correlation of size and number is confirmed by the Enga word tumbi *many* of the periphrastic expression tumbi raoo *to be many*, and pairs of formally similar words meaning *big* and *many* in Ipili and Mendi: Ipili ada *big*, adapua *many*; Mendi ondo or ando *big*, ondop or ondopu *many*. The Wiru word aada *old man* is probably correlated with the proto-West Central word *aada *big*. In Miriam of Torres Strait the root au means *large, great*. In combination with the male suffix -le it means *an old man*. Similarly in Indo-European languages a word basically denoting *big* associated with the term for *father* or *mother* indicates grandparents. In this case age representing the temporal system is correlated with the system of size and number. This correlation of the temporal system with the size-number system would explain why in Wiru and in Kunimaipa the words for *young, fresh, new* belong to the very small subset of forms which basically denote size and number.

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P A R T 2.5.-2.9.

THE TRANS-NEW GUINEA PHYLUM

