PROTO-GOROKAN SYLLABLE STRUCTURE

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The languages of the East-Central family of the Eastern New Guinea Highlands Stock (Wurm 1975) , which I will refer to as the Gorokan languages, are, as a group, probably the most extensively studied of all Papuan languages. Although descriptive materials are still completely lacking for Zavezufa and Yate, there is enough information available on Gimi, Fore, Yagaria (both Move and Hua ' dialects) , Kamano , Kanite, Bena Bena, Siane, >Gahuku, Asaro, and Gende, that Scott 1978 was able to attempt a large number of reconstructions for proto-forms in the appendix to his Fore grammar.

Moreover, the neighbouring languages immediately to the East, of the Eastern family of the same stock (Wurm, ibid .) I which I will refer to as the Kainantu family, are almost as well known , with most of the readily available information on them anthologized in McKaughan 1973. Bee 1973, a pioneering comparative essay which appears in that anthology, one of the most convincing pieces of historical research in Papuan Linguistics , and established not only the existence of several dozen common roots, but also a feature of the common phonological structure of the Kainantu languages: the only syllable final consonant is the glottal stop / I/ , and the canonical syllable is therefore C(C) (C) (CW (') - (There is some dispute whether syllable-initial consonant clusters exist, but that

will not be our concern here.)

Finally, ever since the path-breaking descriptive studies of Capell (1948-9) , it has been clearly established that the Gorokan and the Kainantu languages are closely related . Not only are there

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numerous cognate sets , some of‘ which are recognized by Scott ; syllable structures in both language families are similar . In the Gorokan languages, as in the Kainantu languages, the glottal stop is the only possible syllable-final consonant.

Although Wurm has grouped the Gorokan and Kainantu languages together in an enormous "Eastern New Guinea Highlands Stock" , with languages whose speakers together number nearly one million , there is as yet no solid evidence that any broader genetic relationships exist . In particular , the Gorokan and Kainantu languages are, it seems, totally alien, both phonologically and morphologically, from the languages of‘ Wurm's Central family, a large and relatively well—studied group including Wahgi, Chimbu, Kuman, and Chuave . There are, of course, syntactic typological similarities, among them the existence of clause-chaining, medial verbs, switch-reference, and a distinction between coordinate and subordinate medial clauses: but these similarities, as I have tried to show elsewhere (Haiman 1979, 19814) do not provide evidence for genetic relationship.

Morphologically, the chief distinction between Central languages and those of the Gorokan/Kainantu families lies in the system of person and number marking in pronouns and verbs . Phonologically, the major distinctions are twofold:

1. Central languages lack the glottal stop entirely.
2. Syllables in central languages are closed by a variety of‘ consonants, among them
   a) the nasals /m,n/
   b) the resonants , including a velar lateral that we will represent as /kl/.

In this paper , I will show that the glottal stop in Gorokan

and Kainantu languages can be shown to derive from a number of sources, among them the consonants which close syllables in the central languages. Surprisingly, perhaps, this does not open any etymological floodgates, and the number of cognates we can posit

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between Central and Eastern language families is still so modest that their relationship cannot be established . I hope , nevertheless, that my own ignorance will not restrain others from exploring the possibilities which the reconstructions that follow will make apparent.

There is internal evidence in many, perhaps most of the Gorokan and Kainantu languages, for syllable codas /N/ , /r/ . In word-final position, these consonants disappear or change to /'/ , but morpheme—f'inally, they induce a number of changes in the initial segment of the following morpheme . First , I will summarize the evidence for underlying /N/ and /r/, and then I will propose a more abstract but motivated reconstruction for these consonants which will make the alternations /N/ " / ' / and /r/ " / ' / seem somewhat less magical than they now appear.

Following Bee (1973a, 1973b) all descriptive studies of Gorokan and Kainantu languages have recognized the existence of noun or morpheme classes ending in /V, ' , N/ . In my restatement of these works, I will label /'/ as underlying /r/ , wherever there is evidence for a / '/ " /r/ alternation, for reasons which will become apparent.

In Usarufa, all morphemes end in /V , I , N/ (Bee 1973a : 218) . Since this language exhibits / ' / " /r/ alternations, I will therefore claim that they end in /V, r, N/. The following rules of coalescence apply:

Us. 1. N -— —> ' / __ + obstruents other than nasals

+long/ _ + N

n/ ____ + V

2. N+w -— —-> **'k**

N+y ----> 't

N+r **---->** 'k

The only direct evidence for the abstract segment IN/ is the segment /n/ which appears before a vowel-initial morpheme, and the

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lengthening of‘ nasals in nasal-initial morphemes **.** The alternation /N/ " **/** ' / is phonetically implausible, and the coalescences of‘ Us . 2 suggest an underlying stop of some kind within /N/.

Us. 3. r —---> ' / +C

(Bee (ibid **.** 231) proposes /'/ ---—> /r/ before vowels, as in /kaayaI **+** e/ **---->** kaayar‘e **“** two and . ' Either way, of course **,** the alternation of Us. 3 is phonetically implausible.)

In Awa, too , all morphemes end in /V, ' , N/ (R **.** and A. Loving 1973 25) and the following coalescence rules are posited over morpheme boundaries **:**

Aw. **1** N ----> n / _ s,k, v

Q / Jltip

The evidence for /N/ as /n/ is straightforward here. Nevertheless, the asymmetrical behaviour of the stops /p, t/ vs . /k/ is intriguing.

Aw. 2 N+d -— —> n

as in /wahN + de/ ---> wahne **‘** (it 's) a possum! ' This rule may provide evidence for a general and possibly once productive rule of nasal cluster simplication **NC** ---> N.

Aw. Ll ' **+** --—> k

D

t

Z 0- CW m

Rules similar to Aw. Ll, wherein the glottal stop coalesces with a following consonant to create a (usually homorganic) consonant of lower sonority, are widely attested. Parallel rules of phrase-

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initial strengthening in a smaller number of languages will be discussed later.

In Auyana/Kosena, McKaughan and Marks (1973: 181-9) discover the existence of morphemes in final /V,r,N/. The evidence in this language is strong that /N/ is actually some kind of /N **+** stop/ cluster. .

Au. 1 **N +** N ---> N 4» stop

x place x place x place

as in the putative derivation iyaN **+** maN ---> iyamba ‘ dog (definite) ' . Rule Au. 1 would seem more plausible if /N/ already contained a stop as its second element **,** which stop assimilated to the following nasal with respect to its place of articulation .

Au. 2 **N** + w, d'r ---> nk

N + y ---> nt

Like Au. 1 **,** this rule is plausible if we assume underlying /NC/ here, and in fact it is easy to construct a generalization of Au. **1** and Au. 2: the stop /C/ assimilates in place of articulation to the I following sonorant, which subsequently drops.

Au. 3 N —--> **E /** ___#L

is attested in the derivation of‘ iyaN+maN. The development of morpheme-final /r/ is given by

Au. A r -— — r / __ **V**

p ____> ' / __N,#
r -—-> **B** / __ voiceless stop

Some stems are k_aer ‘ two ', t_aa_r_' “sugar cane ' **,** £5511 ‘house ' **,** m ‘stone ' **,** £552 ‘ sweet potato ' **,** and 9399; ‘arrow ' .

The most remarkable of the Kainantu languages is Gadsup, in which there is evidence for syllable final /V **, I** ,N/, but also for /Y, D/.. It is unclear whether Gadsup is exceptionally conservative

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here, or innovative. There is only one other language from the Gorokan or Kainantu families which exhibits traces of a more—than—three-way distinction. This language is Gende, spoken about as far away from Gadsup as it is possible to be (Gende is the extreme westermost of the Gorokan languages, while Gadsup is spoken at the extreme eastern periphery of the Kainantu language area.) If the stems in Gadsup -Y and -D corresponded to the Gende stems in other renegade consonants, the case would of course be made for common origin, and we would have a paradigm case of Vavilovian or Sapirian conservatism at the peripheries of a genetically related population. But this does not seem to be the case.

Because of the extreme interest of these classes I will reproduce several of the examples from Frantz 1973:42H-7:

V-stems: 155 ‘fire', ya'gi ‘young man', kandaa ‘two'
N-stems: i1~§ ‘dog', 99g ‘water', -§i§ ‘inessive/illative case'
'—stems: 153' ‘sugarcane', 253' ‘house', aanaa' ‘wife’
D—stems: 222 ‘pig', nag ‘rope, vine', aakaD ‘leg’, **-EQQQ** ‘causative case'
Y-stems: makuY 'village', 2! ‘stone’, kukuY ‘fence'.

The coalescence rules, as given by Frantz (ibid.) and Bee (1973b:743) are

Gad. 1 N ---> x place / __ C Eplacj

2 N ---> 0 __ N

N + w ---> mb

N + r ---> nd

While Gad.1 and 2 support the analysis of /N/ as a single nasal consonant, Gad.3 (noted by Bee op.cit.) would seem once again to argue for a cluster whose second element, a stop, assimilated before a following non-nasal resonant, which subsequently dropped.

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Gad. 11 '---_ 1 / __ N,C

Gad . 5 Y, D + n —--> n

Thus kuku! + mu —--> kukunu ‘ fence-I '

poD + mu --—> ponu ‘ pig - I '

Gad . 6 Y + voiced obstruent ---> Y

voiceless obstr. -—-> t

Gad. 7 D + {voiced obstruent —--> nd

voiceless obstr. ---> nt

We turn now to the languages of‘ the Gorckan family, many of which have abandoned the /N/ ---> / ' / contrast in favour of an invariable syllable—final / ' / . This neutralization is phonetically exactly what we have encounted in rule Us. 1.

Scott (1978) distinguishes two major dialects of Fore, N. Fore and S. Fore . While N. Fore has "noun classes" in /V , ' ,N/, in S. Fore, the following rule has applied:

S. Fo . 1 N ---> '/ __ V

This contrasts with

N. F0. **1 N** ---> nk/ __ v

I will assume that N. Fore is the most conservative dialect here,

(of all the dialects and languages discussed so far) and that it provides direct attestation of an earlier /nk/ **,** which is the source of all final /N/ in Goroka and Kainantu languages. This reconstruction allows us to account for the otherwise mysterious rule 8. F0 . 1 by allowing us to postulate a plausible sequence nk > **k** > ' . It will also be compatible with the repeated suggestion in rules above, that /N/ might be an earlier /NC/. Among the rules which then seem less "crazy" in a diachronic perspective are Us. 1 **,** Au. 1 and Au. 2, and Gad. 3. In both Northern and Southern dialects

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F0 . **1** N ---> ' / __ voiceless stop

and in both dialects

F0 **.** 2 **1** -—-> n / __ + mood marking suffix

as in ko'+ e -—-> kone ‘ (it 's) a net bag! '
tuN + e --—> tune ‘(it's) an axe! '

(I wish to state clearly that I do not think F0 **.** 2 is a conservatism: more plausibly it is a rule inversion of F0. 1) . Further evidence for the inherited /NC/ in both dialects comes from coalescences before following sonorants:

F0. 3 N+m ---> mp
N+n,y —--> nt

as in tunuN ma(w) e --> tunumpawe ‘ It is black earth ' . As in Auyana and Awa, /C/ assimilates in position to the following sonor'ant, which then drops.

Lexical evidence for such a cluster simplification may be provided by alternative forms of the negative morpheme : _l_<__a_1\l_ “' 5a_m_p_§_, suggesting ***M*** " k_agp_:_a_.

There is even evidence from S. Fore for a rule NC l---> **N** in that Scott (1978: 12) posits a rule

S.Fo **.** 2 m,n ---> mb **,** nd /# .

Scott has confirmed (pc) that it seems likely that S.Fo . 2 is a synchronically motivated inversion of

S.Fo **.** 3 C ---> 91 / **V** N __ V

a rule which suggests that all nasals in initial position at least may have originated as clusters.

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In Gimi, there is evidence for only two classes **,** morphemes in final /V, '/ . In final position **,** even this opposition is apparently neutralized:

61.1 '---> (a /___,#

Before consonants **,** the glottal stop betrays its existence by inducing a series of coalescences similar to those we have already seen in Awa (Aw.3):

Gi. 2 ' **+** r ---> t

V **D**

g k

m v (where [v] may derive from /'v/)

In Kamano , Payne and Drew (ms **.**) distinguish three classes, in final /V,r,N/ **.** In word-final position '/r/ becomes /'/:

Kam. **1** r ---> ' / ___#-

but it remains before a following vowel as in afur + e -- me "(it's) a pig".

Compendious descriptions exist of two of the Yagaria dialects, Move (Renck 1975, 1976) and Hua (Haiman 1980) **.** In move, the only

final segments are /V,N/, subject to the general rule that

No. **1** N ---> ' **/** _#,c.

Hua is scarcely more conservative **,** with miniscule evidence for

morphemes in final /V,r,N/ **.**

Hu. **1 14,!»** ---> ' /_‘ff.c.

Before the vowel-initial citation suffix -_a_, and only here,

Hua exhibits a phonetic contrast **:** Lnnifl + a ‘water ' **,** E ‘woman ' and

i2 + g ‘ pig ' **.** There are , however , less than twenty roots in final

/n/, and most polysyllabic words do not occur in a citation form

(with the citation suffix) at all **.** In both Move and Yagaria , final

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/ ' **/** coalesces with a following consonant to create a consonant of

lower sonority:

Ya. ’I ' + **g** ---> **k**

h s " f

V P

r t

m b

There is sporadic lexical evidence in Hue for both **/** ' / " /r/ and

/'/ **“** /n/ alternations . Before the frozen suffix —_g_a_ ‘place(?) '

m ‘ back' becomes giflga) ‘ behind ' and 11311 ‘ inessive/illative

case ' becomes -X:_i_r_1_(g_§) ‘ inessive case, (adjectival form) ' .

In Kanite, Gibson and McCarthy (ms.) describe a three class

stem-system, with stems ending in /N, ' ,N/z

V-Stems: afu ‘ pig ' **,** ma a ‘sweet potato ' **,** temu ‘ pitpit '

N-Stems: veN ‘tooth', yaN ‘arm, hand'

'-Stems: g_a_' ~what ' **,** 123' ‘which ' aya' ‘ long '

but it is unclear what changes these final segments induce in the

following segments.

In Asaro , Strange (1973) describes a standard three-way

contrast among stems in (V, ' ,Nl.

As. 1 N + 1 ---> nd

N --—> **x** place / __ stop

x place

As. 2 ' + 1 ——-> t

g **k**

d t

In Siane, the behaviour of possessive suffixes makes it

possible to identify stems in /V,r ,N/ , although final consonants

invariably disappear, as they do in Gimi:

51.1 c ---> 21/ _#

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1 1

The paradigms which partially support a three-way contrast are:

V-f‘inal N-final ('2) r—f‘inal (?)

15g. E _n_e_ he

Zss- 11.851 282 122

38a- r_ n_ 52

m- 22 .d..e. lg

2/3Dl . tina dina tina

V—stems: **w** ‘ eye ' , gala ‘ pig ' , 93mg ‘ song '

N—stems : _a_I1 ‘hand '

r-stems: y_e_' **“** tooth ', 29' ‘water ' , _k_i_' ‘ leg ' .

Si. 2 N,r ---> I / __ c

Si. 3 ' 4- ng ~--> k

d ‘0

Like Siane, Gende offers evidence for final consonants only

when apparently vowel-final stems are followed by possessive

suffixes. On the basis of the following alternations , Brandson (ms.) reconstructs root—final N,w,y, r, and k(l) :

Following: **N** w Y r k Vowel (regular)

188- .112 22 Le 22 £13. 22

23g- SE. £2 E 512. La. 52

358- 9.2. La. 1?. £2 E 2

1pl- 22 Le a 22 Le d_e

2/3pl- §_i £5; Q. Li. Li. Lil

Table One: Possessive Suffixes in Gende

Note that all voiced stops in Gende are prenasalized and that the graph /x/ represents a voiced velar fricative. The "y—elass" has only one member /kuriy/ ‘ name ' , and the "k—class" only two , /mok/ ‘ penis ' and /komuk/ ‘ nose '. The "r-class" has only three members ,

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/kar/ ‘ ear ' , /war/ ‘ tooth ' , and /mur/ ‘ seed, belly ': all three have widely attested cognates in final /r/. Assuming that the underlying forms of the possessive suffixes are the post-vocalic ones, we can plausibly assume a Gende rule

Ge . **1** r ---> ' /____ + obstruent

following which a rule of consonant coalescence similar to Aw. 1}, Gi.2, Ya.1, As.2, $1.3 effects the conversion of /g,d/ to the homorganic, but less sonorous /k,t/. The rule Ge. **1** is parallel to Us.3, Au.1%, Kam.1, Hu.1, Si.2 —-- bearing in mind that many previous investigators have taken the glottal stop as the input , and the resonant as the output , of the alternation rule .

The alteration /r/ " /'/ makes little sense either frontwards or backwards as it now stands. It should be noted, however, that the segment transcribed as /r/ has a number of different phonetic values , among them (r) and (l) , and in at least two of the Gorokan languages now spoken (Move and Kanite) , the resonant /r/ represents

a velar lateral . In an early phonemic description of Move , Renck (1967) described it as a consonant cluster /gl/ , and it is only in his later grammar that he described it, even in articulatory phonetic terms, as a single sound. I suggest that these dialects are the conservative ones here and that what happened in all the others is, first diphthongization (as outlined in Andersen 1972) whereby the velar lateral became a cluster /kl/ . Two plausible lines of further development for such a cluster (which, as I contend , is retained as is only in Move and Kanite) are:

kl > k > I

kl > 1 "' r.

Once we proceed to the languages of the central family, we will find other cases where /k1/ is retained as a single velar lateral phoneme (although, as I have mentioned, there are not nearly as many as one could hope for) .

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The two developments just outlined will naturally seem more plausible to the extent that we can demonstrate the existence of kl"k“l/r correspondences. A cursory survey unearths the following:

a) the numeral ‘ two ', here reconstructed as *KlV, is the source of‘ both ‘ two' and the dual marker in various pronominal and verbal paradigms.

Dual: BB. - ' i

Siane -i-

Gimi -_a_r_- (verbal paradigms)

-re- “ -_r;i_- (pronominal paradigms)

Kuman —_i_r_v- (imperative paradigm)

Gahuku -51- (from *-ki- ?)

Gende —r1-

Numeral: Hua r_orli

Gimi **w**

Siane le_l_e_ ‘

Kanite tglg (**1 >** t#_ in Kamano **,** Kanite, Gende,
Fore (Scott 1978: **1** 1) , Usaruf‘a
(Bee 1973:2614)) **.**

Usarufa kaavar

Gadsup kandaa

b) ‘f‘ence' *kekli

reflex k reflex r reflex t

Gads . kukuY Usar **.** kuru Tair . tutuke

Hua kekiza Auya. kuri

Mo. gegita

Kan **.** kegi'la

For. kagisaa

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11!

c) ‘f‘ruit' *klank

reflex k reflex r reflex t reflex rg

Gads **.** (a)ka Usar. (a)ram Tair **.** t3(b§) Hua za-rga
Auya. (a)ram "fruit"
Awa (a)ra

d) ‘ earth, ground , land ' *maikla

(In the following lists **,** words followed by ***** mean ‘garden ' . **)**

reflex k reflex r reflex t reflex '

Siane mika Agar **.** wara Tair . bat? Hua bai'a*

Gende mikai Usar **.** mara Bina. ma'a

Gahu. mikasi maru'

Gimi maha Awa _ marako
Gads. maka

Awa maga"

Kuman makan

Irava masno

e) ‘ drown ' *miklv

reflex k reflex r reflex kl

Gende gage Kama. mre Gahuku mikili

Hua bkai Siane mikiri

f) ‘which, what ' *aikla

reflex g reflex r

Hua aiga' ‘whioh ' Gimi era ‘what '

kama. iga ‘where ' Irava era ‘where '

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g) ‘morning ' *nentekl

reflex **k**	reflex r
Hua dtir	Gahuku netek(a)
Kam nenter'	

n) ‘ablative case' *klink

reflex k	reflex r~
Gadsup _k__ (“__e_)	Gadsup
Usar. eN	Awa
	Kanite
	Kamano
	Hua ri'

Gahuku ti'
Asar-o ti'

Siane

Irava

1) ‘wife ' *nakl

reflex k

Gadsup aanaak

reflex **r**

Hua nar'u'

Siane pig

j) ‘ egg ' *mukl

reflex **r** reflex '

Hua mur' Yat **.** amu'

Ge **.** mur‘ Gad. mu'

As. mul Us **.** mu'

Si. mur

reflex kl

Kuman ml

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k) ‘and ' *KlV

Conservative reconstructions suggest two coordinate conjunctions **,**

derivable from *KV and *tV " *rV (where, as in (h) **,** 'r yields t) **.**

Both occur widely inside and outside the Goroka and Kainantu

families. "'beriving from *tV are

Gimi: -t_e ‘SS medial simultaneous event '

BB, Siane: $9 ‘55 medial suffix '

Siane: -£e -_t_i_ ‘ phrasal coordinator '

Kamano: -_t_e_ ‘sequential event suffix on SS and DS medials '

Fore: -lt_e ‘SS medial simultaneous event '

1&3 ‘SS medial unmarked coordinator '

Usarufa: -_t_e_ ‘ phrasal coordinator '

Irava: -r_e_ ‘ phrasal coordinator '

—__e_ ‘ invariable SS medial suffix '

Salt-Yui -t ‘phrasal coordinator'

Identical in form and meaning, vbut possibly unrelated, is the DS

. medial postdesinential suffix -_t_e in Tauya . Similar in form and meaning, and possibly derived from a compound *V + tV are

Hua: ito ‘and last, or else...’

Gahuku: ito ‘and, or else . . . ' (clause conjunctions)

Asaro: ido' “and then, but, or...

Gadsup: aate ‘and, finally. . . ' (nominal coordinator)

all of them suspiciously similar in form and meaning to the

(possibly unrelated?) Waskia ito "or" (Ross and Paol 1978: 17) .

Deriving from *KV are

Hua: -g_i_ "phrasal coordinator , symmetrical and exhaustive

conjunction"; derivational plural suffix ‘ group ’

- i' ‘ comitative case suffix; also , too '

Siane: -g__i_ ‘ and '

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Gahuku:

—oge ‘ symmetrical VP coordinator '

Fore:

—1_<__i_ ‘ postdesinential DS medial suffix '

—g§ ‘ phrasal coordinator of symmetrically conjoined NP

with human referents '

Kanite: -ki ` postdesinential DS medial suffix '

Kamano:

-ki " -_l_<_e_ ‘ phrasal coordinator, symmetrically

conjoined' NP

Gende: —_gg ‘ postdesinential DS medial suffix '

Possible cognates outside the Gorokan family are

Chuave, Irava: —ge(re) ‘DS medial 'postdesinential suffix '

Koita: -g_e ‘ clausal coordinator ' (Dutton 1975: 306—7)

Barai: ~53 ‘ clausal coordinator when two clauses have different topics ' (Olson 1981 : 136-7) .

Possible compounds or reduplications KV + KV or KV + tV include:

Chuave, Irava: -g_e_§_e_ ‘DS postdesinential suffix '

Gimi: - -g§__g_q ‘symmetrical and '

-_g_a_t_e_ “symmetrical and; SS sequential suffix '

Awa: —Q_lg§ ‘ and '

The possibility that *KV and *tV may derive from a common source is suggested by

Usarufa: kara' " -_t_e_ and

Gende: -xri ‘ comitative case '

This common source might then be *Kli .

In the same way, the contention that /N/ derives from an earlier */nk/ is strengthened if we can point to cognate sets with nk"n"k correspondences. Some of the more convincing cases I have been able to find include:

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a) ‘ negative ' *kank " kamp

reflex ' reflex N reflex NC

Hua: 'a' Gah. gyl- F0 . %

Fo: a'a Zav. —_a_r_r1

Kam: o' Sia. w-

'512

Earn. 9&-

F0 . M

@311

b) ‘ last, late, inferior ' *inka

reflex ' reflex n reflex nk

Hu. i'a F0 **.** ain Kam. henka

` later ' ` last ' ` later '

0) ‘water ' *mVnink

reflex ' reflex n reflex g

61. **.** one' Gad. noN Gab. naga

Tai . néuiéh") 1 Ge. nogoi

Bin. namari

Aga. non

Usa. nom

Au. nom

F0. waniN

Hua **w**

Mo. girl

Ke. anin

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d) \house' *némVnk

reflex ' reflex **n** reflex **k** (>h)

Bin **.** maa'a Usa. naaN Gad . meek

Gad **.** ma'i For . naamaN Aga. maah

Sia. numuN Awa nah

Gah. numun

Gen. nomun

e) ‘bone' *yampu

reflex **m** reflex b reflex p reflex mp

Gim. -zamu' Sia. a u Hua zagu N. Fo. 1aamgu

Gah. amuza Mo. agova S. F0 . yaemgi

‘f‘orce'

Gen. amu

Asa. amuzo

f) ‘ZBg. anticipatory desinence, medial verb ' *—nka

reflex n reflex k reflex nk

Awa 113 Ben . {<3 Kan . —-nka

For . — **a** Hua -55

g) ‘like, as if' *kVnta

reflex n reflex t reflex nt

Kam. kéna' Hua kta' N. F0 . ganta

Mo. gata'

h) ‘ big ' *nampa

reflex n reflex b reflex p

Usa . naN Ge **.** naba Ben . na a

Si. naba Gah. napa

As. nabo

There are also scattered isolated correspondences such as Hua

/kakora/, lrava /gankor/ ‘ initiated one ' which are intriguing.

It remains, finally, to note that some reconstructions suggest . an alternation between *nk and *k1. For example, Agarabi /pon/ and Gadsup /poD/ suggest an inherited *ponk ‘ pig ' , but Kamano / fur/ suggests inherited *pokl, as does Kuman /bugl/. If we entertain the possibility that such alternation may once have occurred , then we can relate proto-Gorokan *manink ~water ' with a possible source of Kuman /nigl/ , Salt—Yui /nir/ 2 Irava /nur/ , namely *(ma)nikl . Evidence within Gorokan itself for such a reconstruction may be provided by Yate /arin/ , Kanite /tin/ (the latter almost certainly via /rin/ via phrase—initial strengthening) , assuming a metathesis of initial and final consonants . Similarly, there is the prospect of relating the inherited Gorokan negative *kank with the probable source of Kuman /kir/ , Irava /rge/ " /ge/ '" /k/ , possibly *kVkl .

None of‘ the above reconstructions are more than extemely tentative, and even so , the genetic relationship between languages like Irava and Hua remains far from established. What I have done is to reduce only the typological distance between the language families to which these languages belong.

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