REVIEW ARTICLE

D.T. Tryon, New Hebrides Languages: An Internal Classification, Pacific Linguistics, Series C, No. 50, 1976. Pp v + 545.

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1. Introduction.

In this large but unpretentious volume, Tryon presents the first systematic survey of all the languages of the New Hebrides. The raw data, presented in an appendix of nearly four hundred pages, are lists of up to 292 words from 179 different locations. From these, Tryon determines where possible the various reflexes of Proto Oceanic phonemes, and computes cognate percentages. On the basis of the lexicostatistical and phonological evidence, internal subgroupings are presented.

This enormous collection of data will be of great value to Oceanic linguists, both in testing existing hypotheses and in pointing to directions for further research. Because of the broad scope and potential importance of this work, I have attempted below to provide a detailed and critical review.

2. Wordlists.

The most important part of this book is without doubt the word-lists, which are presented in a broad phonetic transcription. The user will be pleasantly surprised by the clarity of layout, enhanced by an index of the English words for which equivalents were sought, maps, and numerous footnotes. In almost every respect, these lists are superior to those the Oceanic comparativist is accustomed to finding in survey sources.

One area, however, where the reader may have to exercise some caution is where morpheme cuts have been made - we are not told by whom, or on what basis. One hopes that they were made solely from evidence within the language, but it has long been common in

comparative linguistics to base morpheme divisions on apparent cognates in related languages, and we are not assured that this method has not been used.

Furthermore, information supplied to me by Crowley points to some fairly serious errors in at least the data from Paama (where Crowley has worked in the field). He reports that Tryon fails to observe vowel length distinctions (which are phonemic), and occasionally confuses high and mid vowels. Rather more serious is the number of times Tryon has failed to elicit the desired item. Instead of a basic word, we are sometimes given a paraphrase, a near-synonym, or even the informant's reaction. For example, the Faulili form elicited for 'person', haitenek, turns out to be a bi-morphemic form meaning 'that whatchamacallit'; and the Lironessa for 'warm', βistat mutin, is three morphemes, the second an English loan from 'start', meaning 'it's getting hot'! The distortion is such that Tryon gives the percentage cognates between north and south Paama (Lironessa and Faulili) as 88.3%, while Crowley, using the same list, has arrived at a figure of 96.7%.

3. Sound Correspondences.

The first step taken by Tryon in dealing with these data is to determine the reflexes of Proto Oceanic phonemes, by referring chiefly to Grace's 1969 list of reconstructions. As expected, many languages show multiple reflexes, and it will be an important part of future work in the area to establish to what extent conditioning and borrowing are involved, and whether or not a case can be made for a Proto Oceanic distinction maintained only in New Hebrides languages. Preliminary work by Crowley suggests that, at least for velar obstruents, there is strong evidence within the New Hebrides for more distinctions than have been found necessary for Proto Oceanic - perhaps a velar fricative, in addition to the already reconstructed velar voiceless stop and voiced prenasalised stop.

One notable discovery by Tryon is that Proto Oceanic *q (from Proto Austronesian *q) is preserved, as a glottal stop, in the

languages of Bongabonga, Tongariki (apparently not a Polynesian outlier!), Makura, and Mataso, in the Shepherd Islands. Considering that no (non-zero) reflex of *q has hitherto been found anywhere between New Britain and Polynesia, this New Hebridean reflex is important, and the new data will be of interest to all Austronesianists. About twenty Proto Oceanic forms containing *q are reflected; and at least two Proto Oceanic reconstructions must be modified in the light of the new data: Bongabonga naŋa?ih 'when' suggests POC *ŋaqi(n)sa(n), and ?ata? 'know' points to PEO *qataq (reflected also in Micronesia and South East Solomons).

Excitement of a more parochial nature is provided by the occurence of a labialised velar nasal reflex [ŋw] of POC *mw in villages 2, 3, 16, 17, 27, and 28 (parts of the Banks Islands and Aoba). Not only is new light shed on the question of the phonetic value of POC *mw, but it becomes now quite clear that velar articulation of this phoneme is not confined to Fijian and Polynesian languages, as Pawley (1972:120) suggested might be the case.

4. 'Quantitative' Subgrouping.

The wordlist used by Tryon is based on the Swadesh 100 and 200 lists, as modified by Samarin, with additional items "considered suitable for the Island Melanesia area" (p.67). The procedures used in the lexicostatistical computation are explained in detail, and the conscientious discussion of the adequacy of the lists is admirable. The end product is a table of cognate percentages among all of the New Hebrides languages surveyed, marred only in parts where the quality of photographic reproduction of the computer print-out is so poor that certain figures are illegible.

Some languages share as little as 12% (12.0% between Sakao (Santo) and Isiai (Tanna) is the lowest I have come across). While Tryon does not expressly deal with external relationships, we can gain an impression by looking at percentage cognates between aboriginal New Hebridean and Polynesian outlier languages, making due allowance, of course, for the likelihood of borrowing. The figure of 39.8% is given

for Nguna and the Polynesian outlier Fila, which are neighbouring speech communities. When the likelihood of borrowing is very low, there are still some surprisingly high scores. Lolsiwoi (Aoba) and Futuna (a Polynesian outlier), situated virtually at opposite ends of the group, share 33.2%. Altogether, in the northern islands of the New Hebrides (Aoba, Maewo, Santo, Malekula, and Paama), which are quite remote from the Polynesian outliers, there are thirteen languages which share at least 30% with at least one Polynesian outlier of the New Hebrides. These figures will be of some interest to proponents of the Central Pacific hypothesis, since it now appears that the languages which are lexicostatistically closest to Polynesian languages are found not in Fiji (no 200 word Fiji-Tonga count exceeds 29%), but in the New Hebrides. Indeed, Tryon shows (p.163) that figures obtained using his Swadesh-based '300 word' list are on average 1.5% lower than those obtained using the standard 200 word Swadesh list.

A very useful summary of the internal lexicostatistical data is presented in Chart 1. Varieties sharing more than 81% are considered to constitute a single language. These 'languages' - a total of 102- are arranged on the chart approximately according to their geographical location. Languages sharing more than 50% cognates are enclosed within a rectangle, and form a 'subgroup'. Not surprisingly, there is a great deal of overlapping of these rectangles. Languages sharing more than 30% are bounded by a curved line, and constitute a 'group'; there are six such 'groups' in the New Hebrides.

Chart 1 is in itself an adequate representation of lexicostatistical relationships among New Hebrides languages. As Tryon points out, it illustrates the fact of chaining by its many overlapping rectangles. It comes as a disappointment, then, to see the following section devoted to assigning languages unambiguously to 'subgroups' (tacitly re-defined as comprising uninterrupted subgroup chains). Tryon had correctly pointed out, for instance, that Vao, a Malekula language, could be described as belonging to any

one of three subgroups. Now it is assigned only to the Malekula Coastal subgroup, presumably for the (linguistically irrelevant) reason that it is spoken on Malekula. As a consequence of this assignment, Port Sandwich (Malekula), which shares 33.8% with Vao, is in the same subgroup, but Araki (Santo), which shares 58.2% with Vao, belongs to a different subgroup. This classification is quite unnecessary; so also are the 'justifications' offered for the percentages used to define the various groupings. To state that varieties sharing more than 81% are considered one 'language' is to define the word 'language' as used in this context. Tryon, however, feels that justification is required, and claims that 81% is the threshold at which mutual intelligibility breaks down, because "the present writer observed speakers from two speech communities sharing approximately 75% cognates, on a basic wordlist, resorting to a lingua franca, in this case Bichelamar, in a situation where accurate transfer of information was required. For New Hebridean speech communities, then, a figure higher than 75% was required" (p.78). Why exactly 81% was chosen, and what is meant by "accurate transfer of information", are unanswered questions; and the conclusion drawn is hardly warranted by the observation cited. The whole episode, though, is rather pointless, since there is no accepted definition of 'language'; and mutual intelligibility, inasmuch as it can be determined, surely has as much to do with phonological, morphological, and syntactic as with lexicostatistical differences.

5. 'Qualitative' Subgrouping.

We turn now to the 'qualitative' subgrouping (that based on phonological innovations). This is probably the least satisfactory aspect of Tryon's work. While the presentation of the data is in itself adequately carried out, the subgroupings proposed are not supported by the data, and are of questionable value to the historical linguist. One hesitates at first to be critical of the proposed subgroupings, simply because Tryon is not explicit as to the purpose for which they are intended, and there is no historical discussion. If they are merely meant to give a rough impression of

the relative similarity of New Hebrides languages to each other, then they are beyond reproach. But historical linguists and culture historians look for something more in subgrouping, namely, evidence of periods of common development; and Tryon himself adheres strictly to the premise that only uniquely shared innovations count in subgrouping, as witness the absence of any mention of the retention of POC *q in part of Central New Hebrides, and the explicit decision (p.57) not to admit a common retention as subgrouping evidence. Moreover, Tryon assiduously removes from consideration anything that appears to have been borrowed. The data, then, seem to have been carefully prepared for the language historian's use; it is unfortunate that less care is taken when Tryon himself assumes the role of language historian, and draws historical inferences from his data.

Using a list of 24 phonological innovations "which support relatively large groupings within the New Hebrides" (p.54), Tryon draws a map (Map 2: New Hebrides qualitative subgroupings) on which the extent of most of the innovations is shown. The title of the map is a little misleading, because Tryon goes on to ignore most of the phonological innovations in subgrouping, selecting only a few which are "phonological indicators of subgroups extending over large areas of the New Hebrides" (p.58), and decides that three major subgroups are required - Southern, Central, and Northern.

Tryon's Southern subgroup, comprising the islands of Erromanga, Tanna, and Aneityum, is not supported by a single innovation (nor, indeed by a single uniquely shared retention), but is tentatively proposed nonetheless, possibly because Tanna and Aneityum share one innovation, and Erromanga is close to Tanna.

On considering the rest of the New Hebrides, Tryon concludes that one particular innovation serves to distinguish between a Northern and a Central subgroup, a conclusion necessitated, in part, by the fact that no two phonological innovations coincide in geographical extent. One would think that a major subgroup is

entitled to be defined by either a large body of evidence or a single common innovation of exceptional significance. How, then, does Tryon define his Central New Hebridean subgroup? He says (p.58):

> "A large Central New Hebrides subgroup comprising Santo (except NW Santo), Malekula, West and South East Ambrym, Paama, Epi, Efate and the Shepherd Islands would appear to be defined by the loss of *R reflecting *paRi 'stingray'".

Thus, we are asked to believe that the languages of all the areas listed above share a common period of history during which their ancestral language evolved as a single unit, and that of all the changes that occurred during this period, the only one that is consistently reflected today involves the loss of one phoneme in one non-basic lexical item. Moreover, *R, as we shall see, is a notoriously unstable phoneme. It seems a weak argument for a subgroup; almost any one of the twenty-four other innovations listed, most of which <u>are</u> bona fide phonological changes, would have served the purpose better.

One reason for the choice of this innovation may be that there is something of a tradition involving the use of reflexes of POC *R as subgrouping criteria (the loss of *R in POC *daRa(q) 'blood' and *kuRita 'squid' is also said by Tryon to set most of the New Hebrides apart from the Banks and Torres Islands, where *R is retained). Another may be the idea that a shared irregularity is a strong indicator of common development. An obvious objection to this argument is that the most likely explanation for one shared irregularity in an island chain such as the New Hebrides is borrowing.

A second objection is that there is no such thing as a wholly <u>regular</u> reflex of *R in any of the New Hebrides languages. Indeed, Tryon's own data suggest, and further data confirm, that the disappearance of *R is gradual, increasing from north to south within the New Hebrides, with no apparent phonological conditioning. Nor is the irregularity confined to the New Hebrides: the liquid *R seeps away in sporadic losses from one end of Oceania to the other. Already

on the threshold of Oceania, PAN *maRi 'hither' and *kaRi 'speak' unexpectedly become POC *mai and *kai 'say'; and there are many POC doublets suggesting occasional loss or change of *R in daughter languages.[2] In all of the New Hebrides, *R is lost in the forms *Rumwa 'house', *meRa 'red', and (probably) *viRa 'kind of taro'.[3] Between Vanua Lava and Santa Maria in the Banks Islands, *R disappears from *noRa 'yesterday', and *kaRati 'bite' follows suit before we reach Merlav. Between Merlav, the last of the Banks Islands, and Maewo, *kuRita 'squid' loses its *R and half way down Maewo the same happens to *suRi 'bone'. South of Pentecost Island, *R is lost from *vaRi 'stingray', and the loss is shared also in all of Santo (except for two languages in the North West). Finally, a central area comprising West Ambrym, South West Epi, and most of the Shepherd Islands leads the field in loss of *R, deleting it also in *mauRi 'left hand'; and somewhere between the New Hebrides and Fiji we must draw another line, for all of the New Hebrides languages retain *R in *tuRi 'sew' and *kaRu 'swim', while all Fijian and Polynesian languages, and Rotuman, lose *R in all instances.[4]

Clearly, there are a number of isophones involving *R that can be drawn across and beyond the New Hebrides, and the choice of that reflecting *R in *vaRi to mark a major subgroup is quite arbitrary.

Closer investigation reveals also that another diagnostic loss of *R has a more complicated history than at first appears to be the case. Tryon claims that all areas of the New Hebrides apart from the Banks and Torres Islands lose *R in *daRa(q) 'blood'; but unambiguous regular reflexes of *daRa(q) (better *(n)daRa(q)) only occur at all in the Banks and Torres Islands. Elsewhere, forms ending in a high- or mid-front vowel predominate, and glottal stop shows up in the Shepherd Islands where POC *q is preserved, so that at least one competing reconstruction - *(n)daqe - is required to account satisfactorily for most of the data.

Another possible explanation for the choice of this innovation is that it follows a line which is quite heavily worn by other

isophones. Tryon's Map 2 shows that no two phonological innovations share exactly the same boundaries; but some lines do converge for part of their length. The line traced by the loss of *R in *vaRi is one of the most gregarious, coinciding with four isophones at one end, and with four others at the other end. How to interpret this situation historically, however, is a tricky problem, and one would be foolhardy to read much significance into it.

The fundamental problem for the would-be subgrouper in the New Hebrides is that there are few sharp breaks between neighbouring phonologies. Tryon observes this fact, and devotes a section to the discussion of 'language-chaining', which he describes as a "system of overlaps ... operating within the New Hebrides languages" which "goes some way towards resolving the problem of sharp cut-offs" and "answers to a sociological reality" (p.81). The first claim is valid if one accepts that naming a problem is the first step to solving it: saying there is a language-chain is perhaps a terminological advance on saying there are no sharp cut-offs. The second claim is, presumably, that resemblances between some genetically distant languages have been enhanced recently by borrowing, which is incontestable. The real problem, however, is one of historical interpretation: how has the 'language-chain' situation come about? Is it merely - as Tryon seems to imply - the result of recent blurring of clear-cut subgroup boundaries, or is it the culmination of millenia of divergence and convergence, during which there were never any sharply defined subgroups? The solution will be a task for future workers in the area, and Tryon has provided a solid data-base for them to work on. It is unfortunate that Tryon's work includes this inadequate attempt at subgrouping, with so little understanding of its historical implications and, it must be added, without sufficiently rigorous procedures.

6. Further Comments.

Some minor slips have been noted. Happily, there are few typographical errors, presuming that the data lists have been proof-read as thoroughly as the discussion, where I have come across only

two: p.21, fn. 6, tama-k should read tana-k; p.51, fn. 1, number 9 is omitted. Two further errors would perhaps be better termed cartographical: on Map 2 (p.55), the number 11 is missing (from around Epi), and Map 6 (p.85) omits altogether the two islands on which the languages Makura and Mataso are spoken.

There are some problems with orthography which might prove a little disconcerting, especially as they are not discussed. The wordlists and the phoneme correspondence tables use different orthographies. For instance, the voiced bilabial fricative is represented by β in the wordlists , but by v in the phoneme correspondence tables, and coarticulations, which are shown as superscripts in the wordlists , are lowered in the phoneme correspondence tables. In villages, 25, 26, and 27, the reflex of POC *p is given as v in the phoneme correspondence tables, but the wordlists show f; here the discrepancy is not merely orthographic.

While a number of loanwords have been noted as such, at least one has escaped Tryon's notice: Raga sifo 'nine', which violates two regular developments, of POC *s to h, and POC *u to w (see p.20, fn. 2 and p.28, fn. 2).

Finally, Tryon's discussion of the work of his predecessors in the field shows some misunderstandings. The Proto Oceanic phoneme inventory was not established by Grace (1969) (p.10), but by Dempwolff (1934-8)(with subsequent refinements by Milke (1961), Biggs (1965), Grace (1969), and Blust (1972)), and Grace's (1955) classification of Oceanic languages was not lexicostatistical (p.165), but largely impressionistic, in some cases based on shared innovations.

7. Conclusion.

All in all, despite the flaws, the achievement is considerable, and Oceanic linguists have to be thankful that the data has been made available. The study of New Hebrides languages had auspicious beginnings in the nineteenth century, when it seems that every other missionary was a part-time linguist, but since then has always been

one of the more neglected areas in Oceanic linguistics. Linguists are, after all, only human: we pick out first the easier, less diversified areas to apply ourselves to, and hope thereby to have a firm base from which to attack the rest. Attention has been lavished on Polynesian and Fijian and similar languages, at the expense of many others. Tryon's work should serve as a timely reminder that we still have much to learn about Oceanic languages.

N O T E S

1. My thanks to Terry Crowley, Peter Lincoln, George Milner, and Andrew Pawley for their help. Of course, I alone am responsible for the opinions expressed.

2. POC *kaRati 'bite' has a doublet *kati, reflected in Motu kasi 'snap of the teeth' and Kuanua kat 'gnaw, pull with the teeth'. A doublet of POC *vuRi (see note[3] below) 'pour water on, wash' is suggested by Gedaged bui, Nakanai vuhi, and Areare hui; Fijian vui and Proto Nuclear Polynesian *fu(q)i could derive from either of the pair. Other doublets can be reconstructed: *tavudi 'conch shell' (rather than the widely attested *tavuRi) is reflected by Kaliai-Kove tavur and Sa'a ahuri, and Proto South East Solomons reflects *baRa 'fence' as *bara. Proto Micronesian *mara(ara) and PSS *malala suggest POC *maRa 'light(weight)', while PPN *maqamaqa points to *maqa. Fijian māmā could derive from either.

3. I prefer to use v for the POC phoneme which has hitherto been written p, and b for mp. The reasons will be found in my dissertation (in progress).

4. There are a number of items with a more patchy distribution. Going south, *R is lost in *Rua 'wave' somewhere between Vanua Lava and South Maewo, and for *takuRu 'back' the loss occurs between Santa Maria and North Maewo (a Merlav reflex is lacking). *tuaRi 'old' is reflected without *R as far north as northern Maewo, as is *kiRa 'axe' from Santo southwards. A comparison of Mota and Nguna shows that *R drops from *vaRasi 'step on' somewhere between the two. A more complete picture of the distribution of *R reflexes in the New Hebrides, and their significance, will only be possible when we have more data on these forms, and others illustrated by Mota gire (*kiRe 'kind of pandanus'), ravrav (*RaviRavi 'evening'), sagaru (*sakaRu 'reef'), sare (*saRe 'tear'), var (*vaRi, reciprocal prefix), varu (*vaRu 'hibiscus'), Nguna musa (*Rusa 'load, cargo'; m is prothetic), and Bay of St. Philip and St. James tavui (*tavuRi 'conch shell').

REFERENCES

Biggs, B. 1965. 'Direct and indirect inheritance in Rotuman.' Lingua 14:383-425.

Blust, R. 1972. 'Proto-Oceanic addenda with cognates in non-Oceanic Austronesian languages: a preliminary list.' University of Hawaii Working Papers in Linguistics 5(3):33-61.

Dempwolff, O. 1934-8. Vergleichende Lautlehre des Austronesischen Wortschatzes. Reimer, Berlin.

Grace, G. 1955. 'Subgroupings of Malayo-Polynesian: a report of tentative findings.' American Anthropologist 57:337-9.

_____. 1969. A Proto-Oceanic Finder List. University of Hawaii Working Papers in Linguistics 1:39-84.

Milke, W. 1961. 'Beitrage zur ozeanischen Linguistik.' Zeitschrift für Ethnologie 86:162-82.

Pawley, A. 1972. 'On the internal relationships of Eastern Oceanic languages.' In: R.C. Green and M. Kelly (eds.). Studies in Oceanic Culture History, vol. 3, Honolulu: Bishop Museum.