REMOTE MELANESIA: ONE HISTORY OR TWO? AN ADDENDUM TO DONOHUE AND DENHAM*

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In Blust (2005) I raised what I thought was a long overdue question, namely why is it that most widely accepted models for the settlement of Remote Oceania fail to account in any straightforward way for the attested distribution of human phenotypes, distinctive cultural traits and certain typological features of language in Vanuatu and 'southern Melanesia' (New Caledonia and the Loyalties). As was fully expected, this question has triggered a response from leading Oceanic historical linguists (Pawley 2006, Ross and Naess 2007:460), although to my knowledge no similar response has yet been forthcoming from Pacific archaeologists or population geneticists. The position statement of Donohue and Denham is valuable in showing that I am not alone in feeling that the standard model of Pacific prehistory leaves certain important questions unanswered.[1]

It is well-known that all of the languages of Remote Oceania are Austronesian (AN). The only area where disagreement was formerly expressed is the Santa Cruz islands, but Ross and Naess (2007) have shown convincingly that those Santa Cruz languages which some scholars had claimed to be 'Papuan' are in fact AN.[2] In essence, the standard model of Neolithic prehistory in the Pacific holds that speakers of Proto-Oceanic/the 'Lapita people' appeared suddenly in the Bismarck archipelago around 3350 BP, and within two or three centuries had spread south and east as far as Fiji-Tonga-Samoa. This movement is sometimes stated as though it involved a single, continuous expansion of a uniform population. But if this were true, we would expect the populations of Remote Oceania to share a high degree of physical, cultural and linguistic similarity. As already noted, this is the case in at least one important respect: all indigenous peoples of this region speak AN languages. However, apart from this connecting thread and certain shared elements of material culture the native peoples of Remote Melanesia and those of other parts of Remote Oceania differ in many ways. My critique was concerned with three types of

[1] Because genetic studies tend to favor different conclusions depending upon which markers are selected as criterial, I refer only to phenotypes. At the risk of oversimplifying a complex situation that includes both intergradation between types and internal variation within types, AN-speaking populations in the Pacific can be assigned either to (1) a 'southern Mongoloid' type seen, for example, in Polynesians, Rotumans, Nuclear Micronesians, Yapese, Palauans, Chamorros, and a few non-Polynesian groups in Melanesia, or (2) a 'Papuo-Melanesian' type (which shows considerable internal variation), seen in nearly all speakers of Papuan languages and most speakers of AN languages in Melanesia. I will refer to these hereafter as 'SM' and 'PM' respectively. For convenience I will also refer to Vanuatu and southern Melanesia as 'Remote Melanesia', in contrast with 'Near Melanesia', paralleling the contrast of Near and Remote Oceania proposed by Pawley and Green (1973) and more fully developed by Green (1991).

[2] Given the lack of evidence that all 'Papuan' languages are genetically related this term has never meant more than 'non-AN'. It is nonetheless convenient to use it as a cover term, as has been done in recent publications, such as Pawley, Attenborough, Golson and Hyde (2005). Similarly, as will be seen below, I use the term 'quinary' not in its strictly mathematical sense for a language that builds all complex numerals on base five, but rather for any language that uses additive numerals for 6-9, whether or not a monomorphemic term is found for 'ten' or higher numerals.

discrepancy between language family affiliation and physical, cultural or linguistic traits in Remote Melanesia: (1) the clear phenotypic differences between most AN-speaking groups of this region and those outside Melanesia, (2) typological traits in the languages of Remote Melanesia that are rare in AN, but common in Papuan languages, and (3) cultural traits that are found in many Papuan societies but are rare or absent in the AN world outside Remote Melanesia.

In the interest of brevity I will pass over point (1) quickly except to reiterate that the AN speakers who reached Polynesia, Micronesia and Rotuma are SM, and they presumably reached their historical locations via the Solomons and Vanuatu where today virtually all AN speakers are phenotypically PM. In areas where Papuan languages are still spoken (as the Solomons) this can be accounted for by gene flow between indigenous Papuan groups and the incoming Austronesians, but in Remote Melanesia it implies either that there was a Papuan population in place before AN speakers arrived, or that there were two distinct waves of migration associated with the spread of AN languages into Remote Oceania, one of them physically SM and the other PM.

My second set of observations concerned serial verb constructions and non-decimal counting systems, two features of linguistic typology that are shared by many Papuan languages and the AN languages of Melanesia (including Vanuatu and southern Melanesia), but are rare or weakly developed in other AN languages. Pawley (2006:246-47) takes me to task for both of these, starting with verb serialization:

"There are two problems with the argument concerning serial verb constructions (SVCs). First, SVCs are not particularly rare in Austronesian languages outside of Oceanic. Certain types of SVCs are present in Taiwan, in Western Malayo-Polynesian and Central Malayo-Polynesian, and they must be attributed to POc itself (Ross 2004). Second, the types of SVC found in Vanuatu and southern Melanesia are structurally unlike those found in the Papuan languages of New Guinea. The history of serial verb constructions in Oceanic merits further study."

I must disagree with all but the last sentence in this quotation. First, the claim that SVCs "are not particularly rare in Austronesian languages outside of Oceanic" conflicts with the available grammars, which show a strong and recurrent emphasis on this feature in languages of Melanesia, but only rare comments on it in the grammars of nearly all other AN languages. Table 1 refers to ten recent grammars of AN languages in Melanesia and fourteen recent and not-so-recent grammars of other AN languages in the Pacific and eastern Indonesia. For each of these the number of pages devoted to SVCs is given, together with the total number of pages in the grammar exclusive of references, indexes and other material that does not constitute part of the description of the language. This ratio is then translated into a percentage (category (1) = AN languages in Melanesia, category (2) = AN languages elsewhere in the Pacific).

TABLE 1: Percentages of grammars devoted to verb serialization

Category (1)

1. Lewo (Early 1994)	55	456	12.1
2. NE Ambae, Lolovoli (Hyslop 2001)	40	476	8.4
3. Araki (François 2002)	12	200	6.0
4. South Efate (Thieberger 2006)[3]	22	366	6.0
5. Naman (Crowley 2006)	13	219	5.9
6. Tinrin (Osumi 1995)	14	279	5.0
7. Namakir (Sperlich 1991)	14	342	4.1
8. Hoava (Davis 2003)	12	328	3.7
9. Xârâcùù (Moyse-Faurie 1995)	7	209	3.3
10. Anejom (Lynch 2000)	4	165	2.4
Category (2)			
1. Pohnpeian (Rehg 1981)	0	382	0.0
2. Kusaiean (Lee 1975)	0	411	0.0
3. Yapese (Jensen 1977)	0	321	0.0
4. Fijian (Schütz 1985)	0	561	0.0
5. Samoan (Mosel and Hovdhaugen 1992)	0	774	0.0
6. Tuvaluan (Besnier 2000)	0	646	0.0
7. Māori (Bauer 1993)	0	674	0.0
8. Palauan (Josephs 1975)	0	494	0.0
9. Chamorro (Topping 1975)	0	281	0.0
10. Leti (van Engelenhoven 2004)	0	275	0.0
11. Kambera (Klamer 1994)	0	336	0.0
12. Tetun (van Klinken 1999)	26	322	8.1
13. Taba (Bowden 2001)	25	408	6.1
14. Buru (Grimes 1991)	6	494	1.2

Each grammar in category (1) was written by a different author, and for each of these there is a separate labeled category treating serial verbs that occupies between 12.1% and 2.4% of the total language description. In sharp contrast, and despite Pawley's claim, descriptions of verb serialization are quite rare for other AN languages not only in the Pacific, but throughout the rest of the AN language family. Known exceptions include Tetun, a CMP language in Timor, Taba, a SHWNG language in Halmahera, and Buru, a CMP language in the central Moluccas. But Tetun has been in contact with Papuan languages in Timor for many generations, and the SHWNG languages almost certainly began to differentiate in the region of Cenderawasih Bay, where they were in close contact with Papuan languages of the Bird's Head before the back-migration to southern Halmahera. The contact history of Buru and other languages of the central Moluccas is unclear, but based on Grimes' description, verb serialization appears to be of minor importance in Buru. Among Formosan languages and languages that have been classified as 'Western Malayo-Polynesian' reports of serial verb constructions are rare (cf. Donohue 1999 and Teng 2007 for two known cases).

[3] In a fairly extensive discussion, Thieberger (2006:221) notes that "South Efate has relics of serial verb constructions with traces of what may once have been serial verbs but are now auxiliary verbs, adverbs, or directional particles."

Table 1 is open to two obvious criticisms. First, it can be criticized as being selective. Second, most grammars of AN languages that explicitly recognize SVCs were written after 1990, when this phenomenon first began to attract much theoretical attention. The first criticism is baseless, since considerations of space limit the number of cases that can be reported, and random inspection of AN languages outside Melanesia shows the same pattern: to my knowledge no grammar of any Philippine language, or any language in western Indonesia apart from Durie (1985) recognizes SVCs.[4] Second, it can be argued that the 'coming of age' of SVCs in the literature of syntactic theory works both ways: constructions that may have been overlooked in grammars written during an earlier era may finally have received their due, but the 'bandwagon' effect of theory-building may also have encouraged the 'discovery' of SVCs where this is only possible by diluting the definition of verb serialization to the point that it ceases to be distinctive.

This geographical skewing led Crowley (2002:158) to remark that "Accounts of Polynesian languages typically make no reference to verb serialization. Bauer's (1997) extensive account of Māori, for example, describes no serial verb or verbal compounding patterns that are comparable to what has been described for other Oceanic languages in this (and the preceding) chapter." Because inflectional morphology is rare in Polynesian languages he speculated that serial verb constructions could actually exist, but "may simply have been treated as instances of unmarked clausal linkage at the level of discourse." No comment was made on the equally striking lack of reference to verb serialization in Nuclear Micronesian languages, or on the fact that clear evidence of inflectional morphology is also rare in many of the AN languages of Melanesia.

To address some of these problems Bril and Ozanne-Rivierre (2004) invited a number of scholars representing different theoretical perspectives and regional areas of expertise to write on 'complex predicates' in Oceanic languages. Most of these contributions deal with serial verbs in the languages of Melanesia, but four address the issue in Polynesian languages. The most salient feature of all but perhaps one of these latter contributions is the contrived appearance of the evidence for 'verb serialization'. Although she ends her discussion by concluding that the Polynesian Outlier Pileni has true serial verbs, Naess (2004), for example, begins her discussion by noting the "challenges" that this language presents "with respect to identifying possible serial verb constructions." Paia and Vernaudon (2004) try valiantly to find evidence for verb serialization in Tahitian, but are confronted with serious problems: "we do not use the concept of "verb" in our metalinguistic framework. Nevertheless, to come closer to the topic of "serial verbs", we have tried to focus on two-lexeme strings of the type 'X Y', so that (i) the lexemes X and Y individually refer to a process, and so that (ii) the string 'XY' globally refers to a process." Similarly, Mosel (2004) spends over 30 pages elaborating on how a category of 'juxtapositional constructions' can be justified for Samoan, but it is not clear in the end that this is what other writers mean by 'verb serialization'. Moreover, if that is her intention it is surprising that in a grammar of over 770 closely printed pages Mosel and Hovdhaugen (1992) never mention serial verbs. Much the same can be said for nearly all other regions in which AN languages are spoken. Pawley may well be right that some

[4] Although it is AN, Acehnese -- like other Chamic languages -- shows extensive Austroasiatic contact influences (Thurgood 1999:47-58).

serial verb constructions can be found in some AN languages outside Melanesia, but this depends in part on how widely the definition of 'serial verb' can be stretched (some scholars want to extend it to English), and his claim masks important differences of how frequent or central such constructions are in the grammars of AN languages in Melanesia as opposed to those of other geographical regions.

Pawley's second point is that verb serialization was already a feature of Proto-Oceanic, as demonstrated by Ross (2004). We do not know that this was the case: it is an inference based on observation of the attested languages, and the evidence for Ross's conclusion is drawn almost entirely (and understandably) from the AN languages of Melanesia, where there are physical, cultural and linguistic reasons for assuming past contact with Papuan-speaking peoples. Verb serialization may very well have been a part of POC grammar that was acquired very early through contact with Papuan languages, or it may have been a feature that developed recurrently through contact after the break-up of the POC speech community. On present evidence I do not see how a principled choice can be made between these choices. However, one implication of Ross's hypothesis is particularly noteworthy --- namely, that if POC had serial verbs these constructions remained active or left clear traces of their former presence in much of Melanesia, but faded dramatically or disappeared in other Oceanic languages. By any reckoning this result would be odd, and it strongly suggests that the wide distribution of serial verbs in the AN languages of Melanesia is a product of recurrent acquisition after the breakup of POC.[5]

Pawley's third point is that "the types of SVC found in Vanuatu and Southern Melanesia are structurally unlike those found in the Papuan languages of New Guinea." But if there is one thing that is clear in the various publications on verb serialization in the Pacific that have appeared in recent years, it is that the term "serial verb" covers a family of construction types rather than a single well-defined type of construction. Table 1 could also include a category (3) for Papuan languages. Foley (1986) devotes at least 23 pages to a discussion of verb serialization in Papuan languages, noting (117) that "All of these languages exhibit a great range of serial verb constructions, which perform many of the central grammatical functions served by adverbs, conjunctions or prepositions in languages like English." If there is indeed a range of types of serial verb construction both in Papuan languages and in the AN languages of Melanesia, it seems premature to conclude that there is no overlap between the two. Rather, what seems more significant is that a discussion of verb serialization --- however this is defined --- appears to be *de rigeur* in descriptions of many, perhaps most Papuan languages and AN languages in Melanesia, but is absent in descriptions of most other AN languages.

With regard to non-decimal counting systems Pawley (2006:247) is more cautious:

"The case for quinary numeral systems is hard to evaluate … One problem here is that it is unclear whether the quinary systems found in some Papuan languages are original or

[5] The mere fact that a linguistic feature is found in more than one primary branch of a language family or subgroup does not, of course, automatically imply that it can be reconstructed for the ancestor of that group. In this connection consider, for example, the reduplication-transitivity correlation in Oceanic languages, which is almost certainly a product of widespread drift (Blust 1977, 2007).

come from Austronesian sources. I think of typical counting systems of Papuan languages as (a) one, two, many systems, and (b) body parts (not just hands) systems, which almost always have uneven base numbers. Two possibilities merit further consideration: (i) That quinary systems existed in POc alongside decimal systems, and (ii) that quinary counting systems spread into part of Vanuatu and southern Melanesia some time after Lapita settlement of the region."

I do not feel that this response adequately addresses the real issues. First, if POC had a quinary/imperfect decimal counting system next to its known fully decimal system one would expect this system to be reconstructable. To date no such reconstruction exists. Second, if the quinary systems of some Papuan languages come from AN sources then the shapes of morphemes representing the numerals 6-9 would surely show this, but no such cases have been reported to my knowledge. Third, no plausible scenario is proposed for how quinary counting systems might have "spread into part of Vanuatu and southern Melanesia some time after Lapita settlement of the region."

The vocabulary in Tryon (1976) gives the numerals 1-10 for 179 language communities in Vanuatu. All languages use separate morphemes for 1-5, but then there is a split, some languages preserving the POC numerals 6-9, but others expressing these numeral values as 5+1, 5+2, 5+3 and 5+4. Lynch, Ross and Crowley 2002:885-887 provide a fairly detailed subgrouping of the languages of Vanuatu which follows the order of presentation in Tryon (1976). This permits an easy comparison of innovative quinary (or 'imperfect decimal') systems with subgroup position, as follows:

The POC forms for 1-10 must have been retained in the ancestor of the Northern Vanuatu Linkage, since some languages in this proposed grouping reflect them. The following innovations are then implied, in each case giving rise to a quinary counting system:

(1) Innovation in Proto-Banks-Torres (6-9 expressed as *lebe + 1, *lebe + 2, etc.)
(2) Innovation in a descendant of Proto-Ambae-Maewo (Raga and the Lolovoli dialect of NE Ambae retain the POC forms, while other languages assigned to the 'Ambae-Maewo Family' have quinary systems)
(3) Innovation in Tolomako (all other members of the 'Northwest Santo Family'cited by Lynch, Ross and Crowley retain the POC forms)
(4) At least one innovation after the breakup of Proto-SW Santo (Tutuba and Aore retain the POC forms, while many others have quinary systems)
(5) Innovation in Sakao
(6) Innovation in Proto-East Santo

The POC forms for 6-9 must also have been retained in the ancestor of the Nuclear Southern Oceanic Linkage, since various languages within this proposed grouping reflect them. But then the following innovations are implied, in each case also giving rise to a quinary counting system;

(7) At least one innovation after the breakup of Proto-Malakula Coastal, since reflexes of POC 6-9 are retained in Uri, Uripiv, Tautu, Atchin and some other

members of this proposed group, but are replaced by quinary numerals in at least Maskelynes, Port Sandwich, Burmbar, Rerep and Unua.

(8) Innovation in Proto-Malakula Interior, where all known languages have quinary systems
(9) Innovation in Proto-Pentecost, where all known languages have quinary systems
(10) Innovation in Proto-Ambrym-Paama, where all known languages have quinary systems
(11) Innovation in Proto-Epi, where all known languages have quinary systems
(12) Innovation in Proto-Shepherds/North Efate, where all known languages have quinary systems
(13) Innovation in South Efate
(14) Innovation in Proto-Southern Vanuatu, where all known languages have quinary systems

Given the data in Tryon (1976) and the phylogeny in Lynch, Ross and Crowley (2002), we must admit at least fourteen historically distinct replacements of the POC decimal system by 'quinary' counting systems in Vanuatu. To fully appreciate its import this observation needs to be placed in a wider AN perspective. Although some Formosan languages have multiplicative numerals for '6' (2x3) and '8'(2x4), only Pazeh uses additive numerals for 6-9. Of the 175 languages in the Philippines (Gordon 2005), only Ilongot has a quinary counting system. A few other AN languages outside Melanesia use addition, multiplication or subtraction to form some numerals, but these are mixed imperfect decimal systems, as with the immediate common ancestor of Keo, Ngadha, Lio and Ende in Flores (1, 2, 3, 4, 5, 5+1, 5+2, 2x4, 10-1, 10), and Kédang, to the east of Timor (1, 2, 3, 4, 5, 6, 7, 8, 5+4, 10). This gives two innovative quinary counting systems for all AN languages outside Melanesia, but perhaps fourteen in Vanuatu alone. Clearly, an observation of this kind cries out for explanation.

With regard to the non-decimal numeral systems of Vanuatu and southern Melanesia Lynch (n.d.:14) maintains that "the development of these innovative systems can be explained through internally motivated changes without having to rely on contact with no longer spoken Papuan languages as a *deus ex machina*." He notes that the term 'quinary' is imprecise in describing the counting systems found in Remote Melanesia, since some of these are imperfect decimal systems, others are quinary, and still others are 'mixed.' Lynch's treatment of the history of counting systems in Vanuatu and New Caledonia is exemplary. However, it is concerned only with the mechanisms by which an earlier fully decimal system was restructured (all of which he regards as system-internal), and it does not broach the question *why* the languages of this region have such atypically high rates of structural innovation in the numeral system as compared with AN languages generally. Moreover, contact-induced structural change *normally* is realized by exploiting language-internal mechanisms, as in tonogenesis. The emergence of tonal contrasts in Vietnamese, and Chamic languages such as Tsat, for example, has come about not by borrowing lexical items from tone languages, but through language-internal processes that were stimulated by contact with tone languages (Thurgood 1999). If for any reason the tone languages that stimulated this process were to disappear, tonogenesis in Vietnamese or Tsat would doubtless appear to be a spontaneous historical development that occurred

through purely internal mechanisms of change. We know that this is not true, but even if we didn't we would be led to suspect that these are contact-induced changes because of typological aberrancy: Vietnamese is almost alone among Austroasiatic languages in being tonal, and Tsat is one of the few AN languages to develop tone, in nearly every case through contact with non-AN tone languages.[6]

Appeals to substratum are always dangerous, but where distinctive traits in biology, culture and linguistic typology all align against language family affiliation it would be unwise to ignore the discrepancy. Donohue has produced another observation about linguistic typology that may link Papuan languages of the north coast of New Guinea and AN languages of Vanuatu. He has assembled a massive, if still unpublished database on the sound systems of Pacific languages which shows a distinctive skewing of phoneme patterning in these two regions, where the inventory of stops contains /b/ ([b] or [mb]) and /j/, but lacks /p/ and /c/. A number of AN languages which have /b/ lack /p/, and many others which have /j/ lack /c/, but the combination of both gaps in a single language is rare or non-existent. As first noted by Dempwolff (1920:91-92), on the other hand, distinctive labiovelar reflexes are widespread in Oceanic languages, and may have been acquired during the earliest AN contact with Papuan languages in the New Guinea area.

Donohue and Denham say that distinctive culture traits "are not of themselves significant, but in combination with the linguistic affinities mentioned above they certainly beg the question of why these traits are found in New Guinea and in Vanuatu, and nowhere else." I reject the view that culture trait distributions have no intrinsic value as markers of historical contact, and have in fact argued elsewhere that the optimal explanation for culture trait distributions is determined by the distribution type alone (Blust 1981, 1991). Briefly, the insertion of large nasal ornaments (cassowary quills, shell discs, etc.) through the pierced septum is common in many parts of New Guinea. Speiser (1996) documents a range of nose plugs (the largest 9.5 cm in length) made of wood, bamboo, stone, flying fox bone, shell or other materials for various parts of Vanuatu, including at least southern Santo, northern Malo, and northwest Malakula. Historical accounts show that similar practices were once found on Ambrym, Pentecost, Efate, Tanna, and the Torres islands. At first this may seem insignificant. However, European stereotypes of the "universal savage" aside, the use of large nasal ornaments (anything bigger than a finger ring) is quite rare globally, and although piercing and distension of the earlobes is attested among AN speakers in Southeast Asia and the Pacific, septal piercing is virtually unknown among AN speakers outside Melanesia. A second distinctively shared culture trait is the use of penis sheaths. In New Guinea these usually consist of colocynths, long pointed gourds, while in Vanuatu (and parts of New Guinea) they are wraps made of leaf and string, attested in at least Malakula, Pentecost, Ambrym and Tanna. Penis sheaths are

[6] Lynch (p.c., August 6, 2008) has pointed out that a number of the languages of Malakula which have lost a decimal system of counting nonetheless have an independent word for '100', as with Avava *aŋat*, Neve'ei *naŋat* or Naman *noŋot* < POC *sa-ŋaRatus '100', and he suggests that the innovation of counting systems which use a base five for the numerals 6-9 could result from the reduced importance of counting large quantities in an island environment. But this fails to explain why a similar atrophy of decimal systems did not occur among AN speakers of SM physical type in the Pacific, where the conditions of life on often small islands have been basically very similar to those in Remote Melanesia.

found in some other parts of the world, but are unknown among AN speakers outside Melanesia.[7] In Vanuatu their function reportedly is magico-religious, to protect the *glans penis* from exposure "to the evil eye and other dangerous influences" (Speiser 1996:175). One might also mention the wide girdles of rattan cane used by men in some highland New Guinea groups, and similarly wide waistbands of other materials among the Big Nambas of Malakula, as well as the thick, mop-like headdresses of red fibers worn by Big Nambas women, which are strikingly similar to those used by women in the eastern highlands of New Guinea. Many of these comparisons favor Malakula, especially the Big Nambas, but this may simply be a conservatism within this group. In any case, cross-cultural comparison of such traits is difficult because little information is available about them, even in works that are otherwise fairly thorough, as Oliver (1989).

What kind of interpretation can reasonably be imposed on these kinds of observations? Blust (2005) favored the view that Papuan speakers preceded Austronesian speakers in Remote Melanesia, on the expectation that pre-Lapita archaeological sites might yet be found in Vanuatu or southern Melanesia. However, this view is becoming increasingly unlikely, as Spriggs (p.c.) notes that "Archaeologically there is no evidence of pre-Lapita occupation despite a targeted campaign to look for such over the last 14 years" (also cf. Bedford 2006:259-60 for the same point). This appears to leave us with a scenario in which the first ('Lapita') wave of migration that reached Remote Melanesia was SM. Part of this movement passed on to Micronesia, probably from the southeast Solomons (Blust 1984), and another part to Fiji and western Polynesia, almost certainly from northern or central Vanuatu. If no further migration had occurred the ethnographically attested populations of Remote Melanesia should be physically and culturally very similar to the populations of Polynesia or Micronesia. However, since they deviate both physically and culturally in the direction of Papuan populations further west, there must have been a second major population movement which led to what Spriggs (1997:159) aptly termed the 'Melanesianization' of Vanuatu and New Caledonia. The major research questions concerning this event, at least for linguists, are:

1) what was the timing of this second migration (M2) in relation to the first?
2) what were the relative sizes of the populations in M1 and M2?
3) did M2 involve
    a) an AN-speaking population that had been 'melanesianized' in Near Melanesia?
    b) a Papuan-speaking population that had been 'austronesianized' in Near Melanesia?, or
    c) a Papuan-speaking population that was 'austronesianized' only after arriving in Remote Melanesia?

The answer to question 1) must ultimately come from the archaeological record, but from the standpoint of language it appears unlikely that M2 followed long after M1, since if it had there should be a clear linguistic signature (as there is in the Solomons), and the SM

[7] Note that these are physically and functionally distinct from 'penis pins' --- transverse pieces of wood or other material that are inserted through the base of the *glans penis* by some of the peoples of Borneo and Sulawesi, reportedly for the enhancement of female sexual pleasure (Brown 1991, Kennedy 1953:127-28).

population presumably would have increased in size to the point that any infusion of PM genes, cultural traits or typological features of language would have been thoroughly diluted. Since this is not the case it appears more likely that M2 followed closely after M1. With regard to question 2), the dominant PM physical type in Vanuatu and the presence of cultural traits of a distinctively 'Papuan' kind suggest that M2 involved a considerably larger population influx than M1.

As for question 3), most linguists have assumed that since all languages in Remote Melanesia are AN this must always have been the case, thus eliminating interpretation c). Blust (2005) revisited the question whether Papuan languages might have preceded AN languages in Remote Melanesia. Pawley 2007:27) has reviewed these issues thoroughly, and asked "What evidence can be found to test these speculations?" He considers lexical data, and finds it virtually impossible to test claims of Papuan substratum in this way. However, he does not consider structural evidence of contact influence, and as already noted, the recurrent innovation of non-decimal counting systems in Vanuatu is more difficult to reconcile with alternative a) than with an alternative which assumes that Papuan languages were once spoken in Vanuatu.

I am not the first to raise these questions, at least in a general form. Spriggs (1997:158) calls alternative b) the 'secondary migration' theory, and alternative c) the 'absorption' theory of the cultural history of Remote Melanesia. He noted that Keesing and Keesing (1971) proposed b), and he further expressed the hope that archaeological evidence of secondary migration might be correlated with Ross's (1988) linguistic arguments for a secondary expansion of Meso-Melanesian speakers from the Bismarcks into the western Solomons after this region had first been settled by speakers of Southeast Solomonic languages. However, he was forced to acknowledge that the linguistic and archaeological evidence do not correspond as closely as one would like. The absorption model was proposed by Bellwood (1975), and has been advocated as recently as 1996 by Gorecki. However, few Pacific archaeologists find support from material culture for either of these scenarios. Most recently, Bedford and Spriggs (2008:112-13) have maintained that

> "We can also now say with increasing confidence that soon after the Lapita dentate-stamped phase of ceramic production, there is regional diversification in ceramic traditions across Vanuatu. These multiple traditions do not demonstrate synchronous change or any great level of similarity with chronologically comparable ceramic sequences elsewhere. Consequently they do not provide evidence of waves of secondary migration or high levels of sustained interaction."

Scholars must be faithful to the material of their own disciplines, and the evidence of ceramic sequences does not support either a pre-Lapita population or a major secondary migration to explain the 'Melanesianization' of Remote Melanesia, leaving a 'trickle in' model as the only alternative. But a 'trickle in' model is difficult to reconcile with the dominant PM phenotype of the region, with the seeming retention of culture traits among AN-speaking peoples that apparently reveal their Papuan pasts, or with persistent typological pressures which caused linguistic restructuring in a direction more typical of Papuan languages than of AN languages outside Melanesia. This type of evidence

supports a scenario in which the 'Melanesianization' of Remote Melanesia was carried out by a population of largely PM physical type that had acquired certain aspects of material culture, including the outrigger canoe complex and pottery, from Proto-Oceanic speakers in Near Melanesia, but that still spoke Papuan languages and retained some distinctively Papuan cultural traits when they arrived in Vanuatu.

Putting aside the current lack of archaeological support, the idea that large numbers of Papuan speakers who had adopted key elements of Proto-Oceanic culture arrived in Vanuatu shortly after the first wave of SM Austronesians is not inherently implausible. The arrival of Proto-Oceanic speakers on the north coast of New Guinea must have been an epochal event, comparable in some ways to the arrival of Europeans in the Americas. For tens of millennia Papuan speakers had lived in isolation from the outside world, knowing only their neighboring groups. Suddenly, a new population that was physically and culturally distinct from the indigenous Papuans appeared along the coasts --- highly mobile, linguistically much more uniform, at home with the sea and possessing a range of new technologies that enabled them to expand as far as Fiji and western Polynesia within a few generations. There has been a tendency to think of Papuan speakers as hunkering down and holding their own in this situation. But contact with Proto-Oceanic speakers could have dislodged some Papuan-speaking groups and influenced them culturally before much gene flow had occurred. With a basic knowledge of the newly-learned outrigger canoe complex, pottery, and some other elements of material culture these groups, still speaking Papuan languages, could have left their home territories in the wake of the Austronesians, or together with them. In this way Remote Melanesia would have been settled simultaneously or in rapid succession by both SM AN speakers and Papuan speakers. Papuan-speaking groups presumably would have been linguistically diverse, while the early AN arrivals in Remote Melanesia would have spoken essentially a single language, giving them a distinct advantage in trade and interethnic contact, and leading to the eventual replacement of all Papuan languages in Vanuatu and southern Melanesia.[8]

This is a speculative scenario, but something like it is needed to account for observations that have too long been neglected. I might add that Fiji shows both similarities to and differences from the culture-historical scenario I have proposed for Vanuatu and southern Melanesia. The initial settlement of Fiji must have been by SM Austronesian speakers (= pre-Polynesians), who spread through Fiji to western Polynesia and Rotuma. A second wave of immigration then followed in perhaps a century, this time by a mixed SM-PM population moving out of Vanuatu. Unlike the situation in Vanuatu, where physically, culturally and linguistically distinct populations evidently co-existed in the initial phase of settlement, the two waves of migration that reached Fiji were linguistically and culturally close, the only significant difference being in phenotype. Geraghty (1983) has argued persuasively that the Fijian dialects currently spoken in the Lau islands originally subgrouped with Polynesian, and were subsequently incorporated into the larger Fijian dialect network, a view that is consistent with the settlement scenario I have proposed.

[8] Similar replacements clearly occurred in Near Melanesia, as in the Admiralty Islands, where no Papuan language survives, but abundant evidence exists for a significant Papuan contribution to the phenotype and culture of the peoples of the eastern Admiralties as against those of Wuvulu-Aua or the Kaniet Islands, whose languages belong to the same Admiralty subgroup.

Finally, it must be stated that the position taken here is fundamentally distinct from the Melanesian pidginization hypothesis of Sidney Ray and Arthur Capell. Ray and Capell failed to recognize the reality of the Oceanic subgroup, and the basis for their views about pidginization was the low cognate densities found in many of the AN languages of Melanesia. The hypothesis of a dual settlement of Remote Melanesia by speakers of both AN and Papuan languages, on the other hand, recognizes the Oceanic subgroup, and is motivated by observations about linguistic typology, as well as by distinctive culture traits that presumably are shared because they tend to persist over long periods of time. Despite great progress in archaeology, genetics and linguistics over the past two or three decades, we are far from understanding the full richness of Pacific prehistory. The distinctively aboriginal Australian countenances of some of the native peoples of New Caledonia may mean that a complete understanding will have to reckon with yet another thread in the complex tapestry of this endlessly fascinating region.

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