1.   The spread of agricultural practices and the An languages

It is now widely agreed that on the islands of SE Asia the earliest rice and millet culture is found on Taiwan and that it spread from there after a gap of a thousand years or more to the Philippines, whence in fairly short order it spread southeastward and southwestward. Inasmuch as there is a whole complex of terms associated with rice and millet culture that can be reconstructed for proto-Austronesian (PAn), it has been concluded that the spread of grain cultivation proceeded in tandem with the spread of the An languages. (Pawley 2002) For this reason scholars have looked for other linguistic data that can corroborate this picture.

The basic linguistic fact that could substantiate this picture of the spread of the An languages, if it could be demonstrated, is that the An languages outside of Taiwan all belong in one sub-group as opposed to all or most of the languages of Taiwan. That is, if all the An languages ouitside of Taiwan derive from a single proto-language, the conclusion is inescapable, that the speakers of this language moved from Taiwan southward to the areas they now occupy. Scholars who espouse this hypothesis, call this proto-language 'Proto-Malayo-Polynesian' (PMP) and the languages that derive from it are the MP languages.

In the past I was very skeptical of this view. It is only in recent years that definitive archeological evidence has been published that shows the earliest practice of grain agriculture to have been on Taiwan. On the other hand the linguistic evidence cited to substantiate this picture struck me as mistaken or at best indeterminate. Nevertheless, I choose the view that the An languages originated on Taiwan and that the extra-Taiwan languages are in the sub-group that we call the MP languages. This view seems to me to represent the historical events. First, it is in accordance with the archeological evidence. Second with this point of view as a starting point we obtain a consistent and motivated picture of the development of the An languages from PAn to the present that is less problematical than the assumption of a southern origin. Incidentally, this view does not rule out the possibility that after the MP languages had left, a community of MP speakers returned to Taiwan —i.e., one or more of the An languages now spoken or formerly spoken on Taiwan are in fact in the MP group. The effect of the assumption of a northern origin on the reconstruction of PAn is discussed in §1.1, below.

Let me now very briefly review the points made by scholars that were thought to be evidence for the sub-grouping of the MP languages and provide some of my own, that if not definitive, certainly are stronger than those that have been presented heretofore. I cannot say that the linguistic evidence is definitive: the linguistic data are such that they could conceivably be consistent with a picture of spread from the south northward.

There is only one kind of fact that provides definitive evidence for grouping and that is 'shared innovations'. The argument is that if two related languages manifest an innovation from the proto-language of the sort that is not likely to have been made independently, they must have made the innovation together at a time when they were a single language. There is a problem with this notion aside from the fact that only a complex of several changes or an unusually constrained change is of the sort that cannot have been made independently by two languages (for most sound changes are the product of the human vocal apparatus and take place naturally in the course of speech – and thus occur over and over again in the various languages of the world). Namely, there is no change phonological or of another sort that cannot spread from one language to another, even if it is not related. That is, a complex of changes made by language A can spread into language B on a word by word basis even when language B is not at all closely related to A — i.e. long after the break-up of the proto-language of A and B, or even if B is not related to A at all. This is the caveat that makes me say that the linguistic evidence strongly supports the picture of a MP sub-group, but certainly a different scenario cannot be ruled out.

1.1   How the assumption of a northern origin of the An languages affects the reconstruction of PAn

The assumption that PAn was spoken on Taiwan and spread southward from there affects the hypothesis of how far back a given proto-morpheme can be reconstructed. If there is an attestation on Taiwan and outside of Taiwan it is assumed that the attestations reflect a PAn morpheme —i.e., if there is no attestation in a language of Taiwan, the proto-morpheme is not reconstructed for any stage earlier than PMP.

Further, if a reconstructed form has attestations in the Nusantara languages[1] and Oceania, the form is assumed to reflect a PMP morpheme, and mutatis mutandis if a form is attested only in Oceania or only in the Nusantara languages we assume a proto-language later than PMP. There are individual cases of forms that are absent in Oceania but are reflected throughout the Nusantara languages including the furthest reaches that must derive from PMP. The reasoning in the case of these forms is that if the MP languages spread eastwards and westwards at the same time, then if a form is reflected in the westernmost reaches and also as far east as the area of Halmahera and the Maluku, it must have been in existence at the time of the earliest expansion of PMP. An example of how our assumptions of the origin and spread of the An languages affect reconstruction is given in §2.5 below where *tukub and *kub are discussed.

2.1 Previous hypotheses on evidence that the MP languages consitute a sub-group of An

First, to talk about the evidence scholars have adduced to show that MP is a group that split off from PAn. None of these do in fact give any kind of evidence for sub-grouping:

(1) loss of *s. *s > *h in PMP and was subsequently lost. The problem with this is that changes of [s] to [h] and loss of [h] are among the most widespread changes that have taken place in the history of the world's language. This change is a natural development induced by the nature of human articulatory capacities. In other words, this change can happen again and again, and languages that evince it, may have done so independently. In fact Pu, clearly not an MP language, made the very same changes. We come back to the development of *s below.

(2) development of the process of nasalization. This well-known process is widely attested and highly productive in Hesperonesian languages and is found in petrified form in Oceania. It consists of a prefix *pa-* added to stems that have been altered by

---

[1] We use the term 'Nusantara' to refer to the areas outside of Taiwan in which An languages are spoken excluding Halmahera/Maluku/ Irian and everything to the east — i.e. the Philippines and most of Indonesia as well as Madagascar. This area has a linguistic unity in that it shares much vocabulary not found elsewhere. Here we view the expansion of the MP languages from the Philippines as moving in a south and southeastward as well as a south and southwestward direction and assume that the languages of Maluku, Irian and the Oceanic languages developed from the languages that had spread eastward. This precludes the hypothesis that the languages of Nusantara formed a sub-group, although they share innovations at all levels that spread secondarily throughout the area and did not spread into Oceania.

substituting a homorganic nasal for the initial consonant of the root to form a new stem, to which a handful of inflectional affixes may be added. It was thought that this process is not attested in a language of Taiwan. However, it is attested in petrified forms. We may quote them here:

> *kayaw: Pu *mangayaw* 'head hunting', *qeta: At *qataq* 'eat raw'*Am *mangtaq* '
> raw' *simantaq* 'eat raw' Ru*mangeta*, *taɣa: At *mnaga* 'wait' Sed *tmaga* 'wait' ,
> St *may-nala?* 'wait' Paz *taxa* 'wait' Bun *mi-tala* 'ambush', *taqu: Pu *manaqu*
> 'see' (cf. Ml *tahu* 'know'), and *tukub: Kav *mnukub* 'cover' Bun *matukub* 'cover'

There are many examples of nasalization of the initial consonant of the root to form a new stem without the prefix *pa-* in languages of Taiwan as well as elsewhere.

(3) the shape of the second person singular genitive /-mu/ in the MP languages and its absence on Taiwan. The hypothesis that this was a shared innovation in the MP languages was first proposed in an article published by Blust in the Working Papers of the Department of Linguistics at the University of Hawaii. This paper proposed a speculative theory of the origin of this form that caught the imagination of colleagues and has been quoted repeatedly, although in fact no evidence to support it has been adduced. It is true that a form /mu/ for the second person singular genitive is not attested in a language of Taiwan and is widely attested over the range of the MP languages. However, in the past I argued that there is no reason to think that the development of *-mu* cannot have happened independently many times (Wolff 95). My reasoning was that *-mu* arose as a product of a natural articulatory process. The reconstructed PAn genitive of the first and second persons is *m. The second person singular morpheme for 'you singular' is reconstructed as *su. The genitive of *su would be *msu. *msu is not attested anywhere in that shape, for this form in PAn must have been an enclitic (as its descendent is almost everywhere it occurs), and as such, the cluster would normally be simplified. In languages of Taiwan, in most of which the *s remained *s, the cluster was simplified to *su, and a reflex of this is what is most widely attested in languages of Taiwan as the second person genitive. In the extra-Taiwan languages in which *s became /h/ the simplification of the cluster results in /m/, yielding *-mu*. This hypothesis of the development of *-mu* is supported by an alternative form, also widely attested in languages in which *s became *h or was lost entirely. Namely, the other PAn genitive

marker *n (originally for the 3rd person) has been extended to the first and second

languages in many languages. Thus, not surprisingly, we find widespread attestations of

-*nu* (from *n plus *su, PMP *hu) in place of -*mu.* This argument is shallow, and as will

be argued below (§2.3), the development of -*mu* involves complexities that make it

unlikely to have taken place independently in various MP languages.

(4) Fourth, the supposed merger of presumed proto-phonemes *C and *t and the

presumed proto-phonemes *N and *n were thought to prove that the MP languages

shared innovations that are not likely to have been made independently. In previous

papers I showed that there are no grounds for assuming the phoneme *C nor *N. There is

ample evidence that what is designated *C is in fact the result of a split that took place in

one of the languages of Taiwan and spread (Wolff 91). The evidence for that consists in

the geographical locations and genetic grouping of the languages that were thought have

two sets of correspondences for *t, in the fact that the languages that reflect this contrast

(i.e. shared in the split) do not show the contrast in all the same forms (there are many

exceptions), and finally in that accentual patterns provide the environment for

determining which of the two sets of occurrences occur. Similarly in a previous paper

(Wolff 93) I showed that purported *N did not contrast with *ñ.

2.2 The development of *ñ

          Now we can move on to developments that do support the hypothesis of MP

sub-grouping. The most important of these is the development of *ñ. In the languages of

Taiwan there were two developments of this phoneme: in one set of languages *ñ was

lateralized and subsequently developed further in some languages (or it may have already

had lateral articulation in some or all of its allophones in PAn — that has not been

determined and may not be determinable). In another set of languages *ñ lost its

palatalization (or lateralization) and became /n/. The change of *ñ to /n/ in languages of

Taiwan may well have taken place independently in the various languages of Taiwan

that evince the change, for it occurred in Knn, as well as in Bun, Am, Kav, and

elsewhere, but not in Sar and Ts which are in a sub-group with Knn.

          In the extra -Taiwan languages a complex of changes occurred, and since it

is a whole complex with different outcomes in different environments across the gamut

of these languages, this can be cited as strong evidence that the change took place only

once. In the MP languages *ñ remained a palatal nasal, lost its palatalization, or weakened to a non-palatal /l/, depending on the environment. We summarize this development according to its position in the root. (a) in final position: *-ñ falls together with *-n in all MP languages: *bulañ 'moon' > Ml *bulan* 'moon, month' Th *furaz* 'moon, month'. This innovation cannot be distinguished from the change in Bun, Am, Knn, Kav etc. on Taiwan, but it is independent of those changes.

(b) medial *-ñ-: *-ñ- remains /-ñ-/ in roots with stressed penults, whereas if the penult is unstressed (short), medial *-ñ- > /-n-/. Subsequently, in some MP languages independently, the inherited medial *-ñ- lost its palatalization. (Cf. the comment on initial *ñ- in the next paragraph.) Compare *qáñud and *añák: Ml *hanyut* Tg *ánod* 'drift, be carried by the current' (Tg proves a long/stressed penult) but Ml *anak* 'offspring' Tg *anák* 'child', Pu *alak* 'child' (Pu proves *-ñ-). Another example with stressed final syllable is *dañúm 'water': ND *danum* Ilk *danúm* Bun *danum* Pa *zalyum* 'water'. In roots with stressed final syllable this change is indistinguishable from the loss of palatalization that took place in Bunun etc., but in roots with stressed penults there is no change in PMP, whereas in the languages of Taiwan these roots changed. Clearly the development on Taiwan has nothing to do with the MP developments.

(c) initial position: ñ- in roots with unstressed penults becomes /l-/; in roots with stressed penults *ñ remains unchanged in PMP. Subsequently, *ñ lost its palatalization in languages across the range of the MP languages, but in each area from the Philippines westward through Indonesia and eastward at least as far as the Solomon Islands there are languages that retained the palatalization. This distribution proves that loss of palatalization occurred independently in the various languages that manifest it. In any case it is quite independent of the same process in languages of Taiwan.

This development of *ñ is an idiosyncratic complex that cannot have come about independently. Nevertheless, it is not decisive and incontrovertible evidence that the MP languages form a sub-group, for the rule that *ñ- > /l/ in roots with unstressed penults is replete with exceptions.[2] We can account for some of these exceptions by

---

[2] Of the 41 proto-morphemes that I have reconstructed with initial *ñ- 20 probably had final syllable stress. Of these more than half (14) have an /n/ in place of expected /l/ in one or more attestations, but all of those 14 proto-morphemes have a reflex with /l/ in at least one language.

noting that many roots had two alternative stress patterns (as is still very much the case in languages of the Philippines that evince contrastive stress patterns of the root). For example, we can account for the differing initials in Cb *núka* 'scabies' and Ml *luka* 'wound' by assuming that Cb derives from PAn *ñúka and Ml from *ñuká. That this root had an initial *ñ is proven by the reflexes in the languages of Taiwan that lateralized the *ñ, e.g. Ts *h?oh?oˆ* 'wound' (reflecting root final stress, even though it is a noun). Similar reasoning can account for a large number of proto-morphemes that manifest /n/ in some reflexes and /l/ in others — even within the same language. E.g. Cb has both *lamúk* and *namúk* 'mosquito' (cf. Ml *ñamuk* 'mosquito'). However, there are some exceptions that cannot be accounted for in this way. These exceptions have the characteristic that the further east the more likely the *ñ is reflected by /n/ rather than /l/. For example, *ñitéq 'sticky sap' has reflexes with /l/ as far east as Roti, but from Roti eastward, most reflexes show /n/ (although some show /l/):

> Pa *lyitjeq* 'sticky sap' Mar *lita?*' 'sap' Maloh *lita?*''latex' Bugis *lita* 'sticky sap' Roti *nita-s* tree with resinous fruits' Soboyo *nito-n* 'sap' Buli *lit* 'stick, adhere'

In some cases the languages with /n/ in place of the expected /l/ < *ñ- are attested much further to the west. For example, *ñaNúy 'swim' has reflexes with /n/ from central Sulawesi eastward, except that in south Sulawesi, the reflexes manifest /l/:

> Pa *lyanguy* Tg *langóy* Ojv *languy* Sel *lange* Bar *nangu* Bugis *nangé* Mgg *nanging* Leti *nani* Kei *naong* Buru *nango* 'swim'[3]

         The areal distribution of the reflex /n/ suggests that the change was made in the west and spread eastwards on a word-by-word basis in post PAn times.[4] This picture of sound change by areal spread is an indication that the PMP languages were not a sub-group, but rather that they formed what Malcolm Ross has termed a 'linkage' (Ross 95:45-50). A sub-group is a group of languages that descends from what was formerly a single language, whereas a linkage is a set of closely related languages that are in contact

---

[3] As with the reconstruction of any form, the reconstruction of *ñaNuy is not without problem reflexes. Chamorro reflects *ñangu* 'swim', which can only be explained by positing a shift in stress to the penult. But there is no explanation as to why the stress should have shifted. ND reflects *hananguy* 'swim' and there is no explanation for the root-initial /n/, nor for the initial syllable *ha-*.

[4] A scenario that makes sense is that *ñ- beginning unstressed syllables became lateralized in the west (much as it had in the languages of Taiwan, but independent of them), and this feature of lateralization spread, It affected the ancestor of the current western languages in all lexical items, whereas further east it affected only some of them.

such that one a change may spread through them, but they were not necessarily a single language at the time the change in question took place. This means that the development of *ñ shows unequivocally that ancestors of the current MP languages were in contact at the time the change took place, but it does not prove that they were a single language at that time. The implication in terms of migration is that this evidence does not prove that the community that spoke the ancestors of the MP languages moved from Taiwan southward as a group. On the basis of this evidence one would have to allow for movement out of Taiwan that could well have been gradual over many centuries. The evidence does make it likely that the direction of the spread was southward and to the east, because the further west the fewer the exceptions.

2.3 Evidence for subgrouping provided by –*mu* and change of *s > †h

The MP second person singular genitive -*mu* developed from the genitive marker *m added to *su. An alternate genitive singular -*nu* developed from the genitive marker *n plus *su. There are two possible routes this combination could have taken to yield the currently attested form -*mu*. Either of these routes is of the sort that probably could not have taken been followed independently more than once. In other words, despite what I said above, -*mu* in fact is a development that gives evidence that the MP languages constitute a subgroup. One possible line of development was simply *m+*s > *ms, which then was simplified to *m* —i.e. *msu > *mu*. This is not the kind of development that may have taken place over and over again because the common simplification of nasal plus voiceless consonant in languages from Taiwan through Hesperonesia was for the nasal to be lost (as for example in the development of the genitive of the second person pronoun in languages of Taiwan). A more likely development was for -*mu* to have arisen after the change of *s > *h*. It is the more likely line of development not only because of the reasons given above but also because it is linked to the change of *s > *h*: the same languages in which *s > *h* are the ones in which -*mu* (or -*nu*) developed. The line of development can be sketched as follows: *m + *su > *msu > *mesu (with epenthesis of /e/ because of the constraints of syllable structure). *mesu > *mehu > *mhu (by syncope because this form was enclitic) . From this -*mu* developed by consonant cluster simplifications. The complexity that must be assumed for this road to the development of -*mu* makes it almost certain that the change took place once and no more.

In any case, whichever line of development the genitive second person pronoun followed, the development was most certainly a one-time event. In short, the development of -*mu* is indeed evidence that the MP languages form a subgroup. Obviously, it is not inexhorably the case that -*mu* is a shared innovation that occurred in PMP. The form could possibly have traveled from language to language secondarily, but that is not likely.

There is another piece of evidence involving the change of *s > PMP †h and *h > PMP 0. This has to do with the fate of medial *s and *h in the Philippine languages. As David Zorc pointed out (Zorc 82), the Philippines reflect a medial laryngeal with a glottal stop that arose from hiatus[5] after the *h was lost. Crucially, the loss of *h took place before *s > /h/.[6] Admittedly, this evidence is weak — it merely involves the fact that *s and *h did not merge. But it involves a sequence of events and as such is unlikely to have happened independently n in various languages.

2.4   Evidence offered by metathesis

Metathesis in general offers little evidence for sub-grouping, for it is widespread over the range of the An languages. On the other hand, metathesis that is very specifically constrained and applies in all reflexes of several roots provides strong evidence for sub-grouping, for the particular conditioning factors involved in the metathesis are hardly likely to have affected widely separated languages independently. Metathesis of roots ending in *Ces —i.e., to *seC, where C is a voiceless stop. This change probably took place after the change of *s > †h[7] and was motivated by a need to obviate the occurrence of root-final /h/.[8] In many of the Philippines languages metathesis involving laryngeals was widespread and in some it is still an on-going process, We have found three examples of this change: *bukes 'hair', *liceqes 'nit', and *tapes 'winnow'. These forms in PMP can be reconstructed as †buhek, †liceheq, and †tahep, respectively.

---

[5] I reconstruct only one PAn laryngeal *h, whereas Zorc and others believed there were two or more laryngeal PAn phonemes. That does not affect the line of reasoning here.

[6] Some of the Manobo languages and Itbayatan reflect *h with /h/. However, I assume that the /h/ attested in these languages arose as a transitional phenomenon after the original *h had been lost.

[7] We quote forms with the shape they would have in PAn as if they had continued PAn forms directly (whether or not they do indeed continue reconstructed PAn forms). That is, the PMP forms which can be reconstructed with PMP †h are quoted with *s, because that is the PAn origin of all PMP †h's. In this paragraph, however, PMP forms are quoted with †h to make the relevant point clear.

[8] /h/ as a syllable coda was unstable almost everywhere in the Philippine languages, and has all but disappeared in the vast majority of them.

This metathesis is specifically constrained and is unlikely to have developed independently. Of course, since there are only three roots that have been reconstructed ending in this sequence, one cannot rule out the possibility that they spread secondarily in the PMP linkage, despite their semantic character as forms resistant to secondary spread. In any case this evidence supports a theory that the MP languages constitute a linkage, and it would also be perfectly consistent with a theory that they consistitute a sub-group.[9]

There are other cases of metathesis shared by the exta-Taiwan languages and by none of the languages on Taiwan. These do not fall into any phonological classes and there is little motivation for the metathesis. In these cases we assume that the form was metathesized in one of the MP languages and spread from there to the others. Here are two examples with initial *ñ- that show that metathesis took place after the change of *ñ to /l/.[10] This makes it impossible that the MP order is original and the languages in Taiwan metathesized, for the change of *ñ- to /l/ occurred only in initial position, and in the metathesized forms the /l/ reflecting *ñ is medial.

> *ñawúN 'shade, shadow' Thao *laun* 'shade, shadow' St *lhaong* 'shadow' Bun *navung* 'shade' Pa *lyaung* 'shade' Cb *álung* 'cast shadow over' Tae' *t-allun* 'shadowed, as the sunlight blocked by trees' Sas *alung* 'screened, shaded' Soboyo *kam-along* 'shadow' Ars *m-aru-na* 'shade, overshadow' Fi *m-alu* 'be shaded, sheltered' To *m-aluu* 'shaded, sheltered'

> *ñikiñiki 'armpit' Ts *h?ih?i* Kan *nikíniki* 'armpit', Sar *pua-lyiklyiki* 'put under the arms' Tag *kilikíli* 'armpit' Rat *kele* 'arm between shoulder and elbow' Tond *kikile?* Mgg *lélé* Kei *halilin* Fij *kili-* 'armpit'

2.5   Formation of disyllabic roots from monosyllabic roots

A number of disyllabic roots reconstructed for PMP have final syllables that correspond semantically and phonologically either to monosyllabic roots (including

---

[9] A logical possibility is that the order seC is the PAn order in these morphemes, and that the innovation took place in the languages of Taiwan. That would yield a sound law without exception. There are several reasons that this is not a likely hypothesis. First, there are forms in the languages of Taiwan that manifest an order of -seC at the end of a root (where C is a voiceless stop). These are not forms with a PAn etymology, but nevertheless if there had been a rule to the effect that -seC > -Ces at the end of a root, forms with the order -seC would be absent or nearly so. Second, the metathesis is clearly connected to the change of *s to /h/ and metathesis involving /h/ is widespread in the Philippine languages. Finally, there is much evidence that the languages of Taiwan do not form a sub-group as opposed to the MP languages. They comprise of several groups coordinate with the MP languages. This latter argument is not a strong one, for as is the case of the cognates in the exra-Taiwan languages, it is possible that the innovated forms spread secondarily.

[10] The exemplification only gives a sample of the languages that manifest the phenomenon discussed.

monosyllabic roots that are doubled or reduplicated) in languages of Taiwan or to final syllables in the Taiwan languages. I argue that these are shared innovations in the MP languages and therefore constitute evidence for a MP sub-group or that they spread through the MP languages after the community left Taiwan. [11] When I wrote my abstract, I had the impression that there were many of them. Their number turned out to be limited, for in most cases the disyllabic root reconstructed for PMP also is reflected somewhere in Taiwan —i.e., can be reconstructed for a stage earlier than PMP. To give only one example: in the case of the word for 'tame', which has reflexes of *dagam in Northern Taiwan , *nagam elsewhere in Taiwan, and reflexes of *ñagam in MP languages, it turned out that the Tsouic languages manifested reflexes of *ñagam.

> *ñagam 'tame' Ts *a-hmohmo* Sar *ma-lyalyamë* 'accustomed' (g- > /ly/) Tir *norom* 'tame, gentle . Rat *naram* 'usual' Tond *naram* Bug *nyareng* Tae' *naram* Mkk *narang* Sel *narang* Motu *manada-ia* Ged *mánan* Ars *manat* 'tame' Sa *ma-nata* 'trained, quiet, broken in'
>
> *nagam Kav *nanam* 'be accustomed' Bun *ma-naam* 'tame'[12] Am *ma–nanam* 'tamed ' Pu *ma-nadam* 'tamed'
>
> *dagam 'accustomed' Paz *daxam* 'accustomed to' Favorlang *madarram* 'accustomed to'

The roots like *ñagam and *dagam supply no evidence for a hypothesis that the MP languages form a sub-group nor for the spread of the An languages. On the other hand if there are proto-morphemes that are reflected as disyllabic roots in the MP languages but in the languages of Taiwan they are reflected only in forms with cognate second syllables or monosyllabic roots, then they would offer evidence for sub-grouping or an early close contact among the MP languages and support the hypothesis that the An languages spread from Taiwan southwards. The following list gives some of the PAn monosyllabic roots, followed by the PMP disyllabic root. There are another half dozen examples.

---

[11] The fact that the monosyllabic root may also be attested in MP languages does not affect the reasoning or the conclusion.

[12] The assignment of the Kav and Bun reflexes to one or the other lemma, *nagam or *ñagam, is based on probability. There is no way of knowing if the Kav and Bun reflect *n- or *ñ-. Similarly, the MP forms aside from Bugis could also originate from *nagam. Perhaps the correct solution is to reconstruct only *ñagam and *dagam and explain the irregular correspondences in Am and Pu as secondary. There still remains the problem of the relationship between *ñagam and *dagam. If *ñagam is a nasalized alternant of *dagam, then we would have expected *nagam and not *ñagam (cf. *dakis - *nakis 'go up', *dem - *nem 'think' and others).

*bac 'rip off, cut off' Pu *-ivas* 'break' *fumaivas* 'broken' Njv *babas* 'cut down rice plants Numfor *kabas* 'split' Biak *bas* 'split open'

†**tabac** 'cut down something not big' Han *tabás* 'cutting down, clearing underbrush' Cb *tábas* 'cut lengthwise (e.g. logs into boards)' Sasak *tabas* 'cut, level' Buru *taha* 'fell, cut s.t. down that is vertical' Tolai *taba* 'cut out wood, carve, as an image' Glb *tapa* 'cut, split' Muyaw *tav* 'cut down the middle' Nggela *tavahi* 'castrate' Lau *afa* 'cut, incise' Fi *tavaa* 'cut with knife, as meat from carcass' (Bau) Tong *tafa* 'cut open, incise' Ren *tapasi-a* 'be cut, have a cut (feet on coral)' Maori *tapahi* 'cut, chop' Sm *tafa* 'cut open (a boil)'

*baw 'above' Thao *faw* 'up, above', *makafaw* 'be up high' Bun *baʔav ibaʔav* 'far up in mountains' Cb *umbaw* 'overlook, tower over' Rat *ußou* 'above' San *embo* 'be put on top' Buru *uba* 'upper part' Mus *po(na)* 'top'

†**sambaw** 'raise' Tag *hambaw* 'near surface (superficial, shallow, just under surface)' Rat *ambou* 'bring to the surface of the water' ND *ambu* 'on the very top' Mlg *avo* 'high, lofty, eminent' Njv *ambo* 'hoist sail' Ars *saho-saho* 'high, lofty, elevate' Sa *apo* 'lever, pry, instrument for prying'

*cak 'cooked' Bun *macacak* 'ripe, cooked' Am *ʔcak* 'ripe' Chamorro *masa* 'ripe, cooked' ND *ka-sak* 'ripe' Muk *sek* 'red' Mlg *masaka* 'ripe, cooked' Ml *masak* 'cooked' Buru *masa-t/n* 'ripe, cooked' Buli *masa* 'cooked, ripe' Lou (Adm) *mwas*[13] Nakanai *maosa* 'cooked, ripe' Motu *maeda* Rot *ma-mosa* 'cooked' To *moho* 'ripe'

†**tacak** 'cooked'[14] Rat *tasak* 'ripe' Muna *taha* 'ripe, cooked' Moken *ta:t* 'ripe, cooked' Leti *nam-taasa* 'cooked' (<taʔas<tasaʔ <ta-sak)

*gem 'hold' Paz *muha-kem* 'embrace' Ru Budai *wa-gemegeme* Ru Maga *ugmégeme* 'hold in hand' Pa *gemgem* 'fist' *gmemgem* 'grasp' Mar *kem* 'hold in palm' Rat *ngkum* 'hold in hands' Ttb *engkem* 'grip, handful' Mgg *engkem* 'clasp, embrace' Busang *gem* 'hold tightly'

†**gemi** 'hold on to' Cb *kumí* 'sucker, remora eel' Mkk *gammi* 'sucker fish' Muna *komi* 'suck' Ml *ikan-gemi* 'remora' Sika *gemi* 'pinch, shut, close (as the mouth)' Mao *komi* 'bite, close jaws on' Sm *ʔomi-ʔomi* 'press between the hands'

Not all reconstructed disyllabic roots containing a second syllable that can be reconstructed as a monosyllabic root are in fact secondary and formed on the basis of the monosyllabic root. There are cases where the disyllabic root came first and the monosyllabic root was formed later. Such is the history when languages of Taiwan reflect a disyllabic root and MP languages reflect a monosyllabic root corresponding in meaning

---

[13] The Oceanic forms reflect *ma-ecak, where *ecak is the disyllabization of the monosyllabic root *cak by addition of a prothetic vowel.

[14] Although this reflexes of this reconstructed morpheme are not attested in Oceania, their spread indicates that this proto-morpheme remounts to PAn.

and form to the second syllable of the disyllabic root reflected in languages of Taiwan.[15] An example is *tukub. A monosyllabic root is attested in the languages,of Nusantara but not outside of them:

> †**kub** 'cover over' Cb *úkub* 'fit together at brims (of two convex things)' Bar *ungkubi* 'cover of pot or pan' (both from *um- plus *kub), Cb *kubkub* 'fishing with an enclosing net' Tonsawang *kokob* 'covered (as with asheet), Mlg *hohofana* 'put cover downwards over' Ojv *kukub* 'sheet for enclosing'

On the other hand reflexes of *tukub are attested on Taiwan and southwards, and we assume that this is the origin that gave rise the proto-Hesperonesian *kub, (influenced by the forms ending in reflexes of *kup, *tup and *tub that have a meaning of 'close, cover').

> ***tukub** 'close cover' Kav *nukub* 'cover' Bun *ma-tukub* 'cover', BM *tungkub* 'cover over' Bal *tukub* 'cover, covering'

       The examples *tukub and †kub illustrate two points: (1) how the assumption of the origin of the An languages on Taiwan and their subsequent spread underlies any hypothesis as to which of the attested forms reflect original PAn forms and which of them reflect post-PAn development; (2) that this assumption allows for an explanation of the development of attested forms that is well-motivated and hangs together. The attestations are consistent with our view and can be readily explained if our assumptions are correct, but there are no linguistic data that make the case inexorably that the An languages originated in the north and spread from there southwards.

REFERENCES:

Blust, Robert A. 1977. The Proto-Austronesian pronouns and Austronesian subgrouping: a preliminary report. *Working Papers in Linguistics* 9.2, 1-15. Honolulu: University of Hawaii, Department of Linguistics.

_____.1988. 'Austronesian root theory an Essay on the limits of morphology'. *Studies in Langue Companion Serie*s volume 19. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Pawley, Andrew. 2002. The Austronesian dispersal: languages, technologies and people. *Examining the farming language dispersal hypothesis,* Bellwood, Peter and Colin Renfrew, eds, 275-286. McDonald Institute for Archeological Research, Cambridge, UK.

Ross, Malcolm. 1995. Some current issues in Austronesian linguistics. In Tryon, Darrell T., ed. *Comparative Austronesian Linguistics: an introduction to Austronesian*

---

[15] These roots are also reflected in the MP languages, but their attestation on Taiwan is assumed to be proof that they must remount to PAn.

studies, Trend sin Linguistic Documentation, Winter, Werner and Richard A. Rhodes, eds. , Part 1: Fascicle 1, 45-120, Berlin – New York: Mouton de Gruyter.

Wolff, John U 1991.   The Proto-Austronesian Phoneme *t in Blust, Robert, ed., 1991. Papers Presented to George Grace*, Pacific Linguistics* C-117. 535-549.

_____ 1993. 'The PAn Phonemes *ñ and *N.' *Oceanic Linguistics* 32.1, 45-61.

_____ 1995. 'The position of the Austronesian languages of Taiwan within the Austronesian group' Li, Paul Jen-kuei et al., eds. *Austronesian Studies Relating to Taiwan, In Academia Sinica: Symposium Series of the Insgitute of History and Philology,* Number 3, 521-584.

Zorc, R. David. 1982. 'Where, O where have the laryngeals gone? Austronesian laryngeals re-examined'. Amran Halim, Carrington Lois, and Wurm, S.A. Eds. *Papers from the Third International Conference on Austronesian Linguistics,* vol.2: *Tracking the travellers,* 111-144. *Pacific Linguistics,* C-75