

## PROTO-AUSTRONESIAN LATERALS AND NASALS

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Tsuchida (1976:139-143) suggested that there was enough evidence to support the reconstruction of two different Proto-Austronesian phonemes that he labelled \*N and \*L. The novelty in his proposal was in the hypothesis of \*L, for \*N - under the symbol \*n<sub>2</sub> - had already been suggested by Ogawa and Asai (1935:6f) and is well supported.

Dahl (1981:101ff) attempted to show that the different reflexes assigned to \*N and \*L were complementarily distributed, contrary cases being dismissed as either possibly due to error or to assimilative or analogical changes. In his view the correspondences assigned to \*L appeared only in initial position whereas those for \*N appeared in medial and final positions. Dahl prefers the symbol \*ʎ for the single proto-phoneme, but we will use \*Da.L for it as a mechanical substitution without affecting his phonetic interpretation which seems to be that \*Da.L was a voiceless lateral (Dahl 1976:75).

An important point might be at stake in the issue of complementation, for if \*N and Tsuchida's \*L are different phonemes, and if they are not distinguished by any Formosan language, their merger could be interpreted as a common innovation supporting the hypothesis of a Proto-Formosan.

For the purposes of the following discussion it is convenient to speak of \*N reflexes and \*l reflexes. In effect we will mechanically substitute \*l for Tsuchida's term \*L. At the same time we will mechanically substitute \*L for Tsuchida's term \*ʎ. To avoid compounding confusion we will label the old \*L as \*Ts.L and the old \*ʎ as \*Ts.l.

The substitution of \*l for \*Ts.L and \*L for \*Ts.l seems obligatory if \*N and \*l are different phonemes. None of the Formosan languages in Tsuchida 1976 show different reflexes for \*N and \*l. He distinguished these proto-phonemes by the reflexes that appear in the non-Formosan languages. Non-Formosan languages appear to reflect \*N with a nasal and \*l with a lateral. Furthermore many Formosan languages offer a clear [ʎ], sometimes described as being slightly palatalised. There is thus reason to consider whether \*Ts.L (= \*l) was not phonetically [ʎ], a voiced lateral.

There is some evidence that can be cited in favour of regarding \*l as having been voiceless. Saaroa everywhere and one Ami dialect in medial and final positions (Valangaw) clearly offer voiceless lateral reflexes for \*l, and Tsou exhibits h. On the other hand the Sakizaya dialect of Ami presents a voiced stop throughout, whereas northern dialects of Ami have voiced apical stops and/or spirants in initial and medial positions and a voiceless spirant in final position. Central and southern Ami dialects have lateral fricatives which are voiced in

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initial and medial positions and voiceless in final position. Valangaw has a lateral fricative which is voiced in initial position and voiceless when medial or final (see above). Saaroa, Tsou, and Ami have merged \*l with \*N, now by some regarded to have been a voiceless nasal. Bunun likewise shows a merger of \*l and \*N, but the outcome is n, a voiced apical nasal. With the exception of Kavalan all of the other languages exhibit a merger in the reflexes of \*l and \*N. There is however a difference of opinion in that Tsuchida describes the l of Rukai so-called dialects as 'a voiceless lateral fricative' (1976:112) and Li has described it implicitly as voiced in a publication (1977:5) and explicitly as voiced in a personal communication. [Tsuchida has not yet had an opportunity to re-examine the matter.]

For \*L (= \*Ts.l) many Formosan languages present a lateral flap. These languages are Kanakanabu, Saaroa, Budai and Mantauren Rukai, Paiwan, Puyuma, Ami, Saisiyat, and Pazeh. Those that do not, offer reflexes that are compatible without difficulty with a hypothesis that they had a flap articulation earlier on. These are Tsou, Maga Rukai r [ɹ], Sedeq, Thao r [r], Tanan Rukai, Bunun Ø, and Atayal y, Ø. One of the principal writers on the Formosan languages, Paul J-k. Li, has elected to indicate the flap by L, a convenient solution. There is thus evidence that could be used to support the hypothesis that \*Ts.l (= \*L) was a voiced lateral flap. If \*l (\*Ts.L) was a voiced lateral, then the interpretation of \*L (\*Ts.l) as a flap seems to be the simplest hypothesis. Examples of reconstructions containing \*L are the following:

PAN teLuH<sub>2</sub>, Sed turu?, SaiTa tuLu? (A: u/e), Paz turu? (A: u/e), Pai čeLu, RukTa tuLú, RukBd túLu, RukMg túru, RukTo tuú, RukMn tuLu (all Rukai dialects A: u/e), Kan tuúLu?, Sar tuulu?, Tso turu (all Tsouic A: u/e), Ami tuLu? (A: u/e), BunNC tau, BunS tau?, Tha tu:ru? (A: u/e), Kvl u-tuLu (A: u/e) *three*, Puy ta-teLu? *three persons*, To tolu *three*.

PAN ZaLan, AtyMx raan (women's speech), SaiTa raLan, Paz daran, Pai jaLan, Puy da-daLan, RukTa ka-daLan-a(ne), RukBd ka-daa-daLán-ane, RukMg da-drán+, RukTo da-daáne, Kan caáne?, Sar saLa?a?, Tso cron+, AmiSk zazan (A: z/L), AmiNCS LaLan (A: L/r), BunNCS daan, Tha sa:ran, Kvl Lazan (M: L-z/z-L), To hala *road*, *path*.

PAN Lima?, Sed rima?, Pai Lima, Puy Lima?, RukTa Limá, RukBd Líma, RukMg ríma, RukTo imá, RukMn Lima, Kan Liíma?, Sar ku-Lima?, Tso rimo, Ami Lima?, BunNC hima?, BunS ?ima?, Tha ri:ma?, Kvl u-Lima, Sm lima *five*.

PAN Laŋaw, SaiTa Laŋaw, Paz raŋaw, Pai La-Laŋaw, Puy a-ŋaLaw (M: ŋ-L/L-ŋ), Ami La-Laŋaw, Tha ránaw, Kvl Laŋaw, To laŋo *fly*, RukTa a-La-Laŋáw, RukBd a-La-Láŋaw, RukMg a-ŋároo (M: ŋ-r/r-ŋ), RukTo a-ŋáaw (M: ŋ-\*L/\*L-ŋ), RukMn a-ŋaLau (M: ŋ-L/L-ŋ) *bluebottle*, Kan taa-ŋaLáu? *gnat*.

PHN biq<sub>13</sub>eL, AtyMb biqiy (A: i/e), SedTn biqir (A: i/e), PaiTamali biqel ([?] b for anticipated v), Kan vi?íLi?, Sar vi?iLi?, Tso f?iri (all Tsouic A: i/e), BunNC biqi, BunS bihi? (all Bunun A: i/e), Ilk biqel, Ifg bi:ol *goitre*.

The evidence for \*N in medial and final positions seems to be indisputable. The Formosan languages offer the same reflexes as for \*l and the non-Formosan languages offer the same reflexes as for \*n:

PAN CuNuH<sub>1</sub>, Kan -cúnu?, Sar -culu?, Tso -cuhu, RukBd -cúlu, Pai culu, Ami -tuluh, BunS -tunu?, BunNC -tunu, Sai -suloh *to roast over a fire*, RukMn culu-*a smell of burning feathers*, Mal tunu *to burn*, To tunu *to cook on an open fire*.

PAN D<sub>2</sub>aNum, Kan canúmu?, Sar salumu?, Tso chumu, Pai zalum, Puy zanum (A: n/l), Ami nanum (A: n/l, n/r), Bun danum, Tha sa:öum, Kvl zanum, Sai ralum, Paz dalam *water*, To lanu *to wash or rinse in fresh water*.

PAN buLaN, Kan vu<sup>h</sup>ne?, Sar vuLale?, Tso froh<sup>+</sup>, Ami vulal, Bun buan, Kvl buLan, Mal bulan, Fi vula *moon*.

PAN q<sub>2</sub>uZaN, Kan ?uc<sup>h</sup>ne?, Sar usale? *rain*, Tso m-<sup>+</sup>ich<sup>+</sup> *to rain*, RukBd <sup>u</sup>dale, RukMg ud<sup>h</sup>l<sup>+</sup>, Pai qujal, Puy Hudal, Ami quLal, Buns hudan, BunNC qudan, Tha qusa<sup>o</sup>, Kvl ?uzan, Sai ?<sup>ä</sup>-?oral, Aty qwal-ax, Mal (h)ujan, To ?uha *rain*.

The evidence for \*l in medial position appears to be sufficient:

PHN bilaŋ, Kvl, Mal bilaŋ, Itb -vilaŋ, Ivt -vidaŋ *to count*.

PHN bulaw(-an), RukTa bulavá, RukBd bulávane, RukMg blávni, blávne (Tsuchida), RukTo bulávane *copper*, Pai vulavan *copper, brass*, Puy vulawan *brass*, Ami vulawan *gold, silver*, Hlg, Ilk bula:wan, Ngj bulaw *gold*, Tag, Bik, SL bulaw *red*. Under this hypothesis, Ivt vuhawan *gold* would have to be a loanword. However for another instance of Batanic h/x for an etymon regarded before as having \*l, see \*[tT]aNam below.

PHN bulay, Kan vuná*?*, Sar vuli*?*, Itb vulay *snake*.

PHN gelaŋ, Ami kalaŋ (A: a/<sup>+</sup>), Mal g<sup>+</sup>laŋ *bracelet*.

PHN kaliC, Puy kaliT *fur*, RukTo kalíci *hide, leather*, Kmb kalittu *skin, hide*.

PAN kili?, Kan níki-niki? (M: n-k/k-l), Sar líi-likí? (M: l-k/k-l), Tag, Bik kili-kili, Ilk kili-kili, Fi kili- *armpit*.

PHN -lalak, RukTa, RukMn lalake *child*, Pai lalak *child* (term used by elders), lalak-an *little finger*, Puy lalak *young*, Tha ?a-<sup>o</sup>á:ðak *child*, SblBt ?a-la:lak *offspring*, Png gi-la:lak *children, direct descendants*. Puy lalak (also) *children* (plural of alak *child* from PHN w<sub>2</sub>aNak) seems to belong here, but if so is in a suppletive relation to its singular associate.

PHN pilay, RukBd ma-pilai, Pai ma-pilay, Tag, Ilk pi:lay, Ivt piday, Itb pilay *lame*.

PHN [tT]alam, Sed -talaŋ, Paz mi-talam *to run*, Sng t/um/alaŋ *to run away*.

To these it may eventually prove possible to add with assurance the following which involve what now appear to be inexplicable irregularities:

(?) PHN siliw, Paz siliw *running noose*, Tag si:loq, Ilk si:lu *loop, lasso*.

(?) PHN walíS, RukBd válisi *tooth*, Paz walis *tusk*, Saw <sup>+</sup>li *canine teeth (horses, pigs)*, Kmb uli *tusk*.

In this connection Tsuchida (1976:143) offered the following comparison as implying a PHN [tT]alam, here reinterpreted:

PHN [tT]aNam, Kan ku-a-tanáme?, Sar m-aku-a-talame?, Tso oo-thom<sup>+</sup>, Bun tanam-un, Ami mi-tanam (A: n/l), Paz mu-talam, Sai šan-talam, Kvl talam (Dissimilation: l/n before m), Aty t/m/alam, Itb taxam (Dissimilation: x from l/n before m) *to taste*. It is attractive to treat this comparison as containing the element that appears doubled in Tag namnam *taste*, Tbt namnam *to taste with the lips*, the first part being a prefixed element \*[tT]a- such as appears in Dempwolff's reconstruction \*ta(n)kub *to cover* when considered in relation to his \*kubkub *to cover*. It is possible that the two instances of dissimilation that this reconstruction requires themselves reflect a single dissimilation in a proto-language that formed a doublet with the reconstruction made here.

The following are the instances of correspondences in final position that can be assigned to \*l:

PHN bakal, Puy vakal *a kind of knife*, Pai vakal *dagger*, Tag bakal *iron-tipped stick used in rice-cultivation*.

PHN bukul, RukMg ma-bkulu, Paz ti-bukul *hunchback*, Kvl buqul *knot*, Ilk bu:kul *swelling, protuberance, bump*, Mal bɔŋkɔl *bump, hump*.

PHN bukel or pukel (with an appropriate analogical change), Kvl buqul (A: u/e), KlnKl pukel *knee*, KlnKy puk+l *bone*.

PHN buqel, Sed bql-it *leg*, WBM buqel *knee*, Seb buqul-buqul *ankle*.

PHN kawil, Kan m-ati-káini?, Sar m-ari-kaili?, RukMn -kaili *caught on thorns*, RukMg -kvili *caught by vines*, Bik, Hlg ka:wil *hang*, Seb kawil-kawil *hangnail*.

PHN ta?pil, Kan sia-tapíni? *patch*, Ami mi-tapil *to patch*, Bik taqpil *to patch*.

In regard to \*l in final position Tsuchida (1976:143) cited Tag kawil *fish-hook* in connection with \*kawil above and has found Dahl's suspicions confirmed by the discovery of Puy kawil-an *fishhook*. The Philippine words cited above seem to show a better semantic fit with the Formosan words than with the words for *fishhook*.

There are two instances that involve metathesis which confuses the issue as to whether a correspondence in final position is involved, though there appears no reason to doubt the cognation:

PHN [bp]eŋel or [bp]eleŋ, Sai pelen *deaf*, Hlg buŋul *deaf*, Mal biŋal *temporarily hard of hearing*. Whichever labial is original, the other is due to an analogical change.

PHN Zawil, Sar ma-sail-a?, RukTo ma?a-davili, Puy a-dawil, Btk, TbwK qa-lawid *far*. All non-Formosan words exhibit a metathesis (\*Z-1/1-Z).

Initial correspondences of the same type as the medial and final correspondences assigned above to \*l seem to be numerically adequate:

PHN laŋsi?, Puy laŋsi? *smell of burnt rice*, Ilk laŋsi *smell of certain fish, certain skin diseases, putrid blood, etc.*

PHN la(m+)lam, Sar ma-lalame?, Tso a-hmohmo *accustomed*, Png lamlam *become accustomed*.

PHN lekeC, Kan ma-ta-nekéce? *sticky*, Mal l+kak *adhere*.

PHN lekkek, Puy -lekkek, Itb lekkek *to tickle*.

PHN lemek, Puy a-lmek *fine, soft*, Png an-lemek *become soft, soften*.

PAN libu?, limbu?, Paz libu? *hedge, fence*, AtySq libu? *circle, enclosure, trap*, Tag limbo *moon halo*, BM libu *surroundings*, Bar libu *ring around sun or moon*, mo-libu *sit in a circle*, Fi ma-levu (? e/i: inexplicable, but see below) *fish-weir enclosure*.

PHN libu?, Kan ni'ívu?, Sar livu?u?, RukBd líbu, RukMg libúu, RukTo libú, RukMn livu, Pai livu, Sai libu? *wild pig's grass-lined den*, Aty, Sed libu? *den, nest*, Biak niw *pig's lair*.

It is not at all unlikely that the last two comparisons belong to the same cognate set. They have been separated to provide ease in considering them either separately or together. The last comparison indicates that the regular reflex in eastern Indonesia may be *n*. Saw n+Bu *nest* looks as though it should also be included, but its initial consonant and first vowel offer serious difficulties; the Sawu word can more easily be associated with Numfor *niy+w pig's lair*. It is of course not unlikely that together they exemplify an uncontracted doublet of the last etymon above. It would however be most interesting if this uncontracted form might explain the aberrant vowel in Fi ma-levu.

There are two instances, both of which involve a PAN prefix \*qali-, in which it is difficult to decide whether the \*l should be regarded as initial or medial because the initial syllable is not reflected by many languages. The prefix appears in full in the following:

PHN qalibanɓaŋ, Puy Halivaŋɓaŋ, Seb qalibanɓaŋ *butterfly*.

The two instances are:

PHN (qa)lima[tT]ek, Kan ʔanimeték-aʔ (A: e/a) *creek leech*, Sar ʔalimetek-aʔ (A: e/a) *paddy leech*, RukBd limáteke, RukTo limátake (A: a/e) *mountain leech*, RukMg lmátkɨ, lmátkə (Tsuchida) *leech*, RukMn limateke *small ground leech*, Pai limaček *mountain leech*, Puy limatek *paddy leech*, Tag lima:tik *leech*, Mer dimátika *small leech*.

PHN (qa)lim+Caq, Kan nimécaʔeʔ *paddy leech*, Ami la-lintaq *mountain leech*, Isg alimta *a kind of very large leech*, Mal (h)alintah, lintah *leech*, Bar alinta *leech*.

In the following there appears to be good reason to reconstruct a doublet, one with initial \*l and the other with initial \*n. Otherwise we must face the task of choosing between the about equally complicated possibilities of many independent instances of dissimilation and many instances of partial assimilation.

PHN luaŋ, Sar ta-i-luaŋe *female pygmy deer*, RukBd lúaŋe *cow*, Blw, KlāG luwaŋ *carabao*.

PHN nuaŋ, RukMg nuŋə, RukTo nwáŋe, RukMn nuaŋe *cow*, Tha qnuwan *deer*, carabao, Paz nuaŋ *carabao*, cow, Ilk nuaŋ, Agta q+nwaŋ, Atta nua:ŋ, BonG, Ifg, Ibl nuwaŋ, Isg nuwa:ŋ, ItgB nuwaŋ, KnkN, KlnKy nuwaŋ, KlnKl newaŋ *carabao*.

Kan ʔi-núaŋeʔ *female deer*, BunS ha-nvaŋ, BunNC qa-nvaŋ *deer*, carabao can be associated with either reconstruction, since both Kakanabu and Bunun merge \*l and \*n. Sai ha-nuan *horse* belongs here under a hypothesis that an assimilation (n/ŋ) occurred.

The evidence for a PHN luaŋ is somewhat strengthened by the appearance of support in a number of defunct Formosan languages: Fav loan *buffalo*, Bab loan, Pap loan, luang, Hoa loan, loang *cow*, carabao, Sir louang *ox*. Although it might be said that \*nuaŋ is somewhat favoured to be the older form by its slightly greater distribution, it is difficult to contemplate the limited distribution of the two cognate sets and the fact that either one can be derived easily from the etymon of the other without regarding them as evidence for a Proto-Formosan on one hand and for a closer relationship between such a Proto-Formosan and Proto-Philippine as continuing a Proto-Hesperonesian.

There seems to be general agreement that the initial correspondence assigned here to \*l is valid. However Dahl has argued that this initial correspondence

should be assigned - under his symbol \*Da.L (Dahl 1976:74f and 1981:101ff) - to the same correspondence as the one that has been assigned here to \*N. His grounds appear to be (1) that the instances exemplifying the medial and final correspondences assigned by Tsuchida to \*l (under his then symbol \*L) were not convincing; (2) that the instances exemplifying the initial correspondences like those for medial and final \*N cited by Tsuchida could be explained as due to assimilation to a following nasal; and (3) that therefore the initial correspondence assigned to \*l was in complementary distribution with the medial and final correspondence assigned to \*N. Since we have introduced comparisons not cited in Tsuchida 1976, it is not clear how Dahl would view the problem now, particularly since some of the comparisons show non-Formosan cognates with laterals unassimilated to a following nasal.

Furthermore there is a small collection of comparisons with initial correspondences like the medial and final correspondences assigned to \*N which do not lend themselves easily to being explained as resulting from instances of assimilation:

PHN Na[tT]aD, RukTa latáDe, RukBd látaDe, RukMn latade, Sai latar *outside*, Bik na:tad *front yard*.

PHN NaCeŋ, Kan natéŋe?, Sar lateŋe?, RukBd láceŋe, RukMg lcéŋə, RukTo lacéŋe *vegetables*, RukMn laceŋe *Solanum nigrum*, Pai laceŋ, Ami lateŋ, Ilk, Itb nateŋ *vegetables*, Ivt nateŋ *Solanum nigrum*, Bik natuŋ *taro, taro leaves*.

PAN Nuka?, Kan núka?, Tso hʔo-hʔo, RukMg ma-lku-lkáa, Bun nuka? *tumour*, Ami luka? *wound*, Paz luka? *scab*, Sed lu-qih, lu-qah, Itb nuka *wound*, BM nuka *skin eruption, scabies*, Mal luka (l/n, see below), TBT luha, ma-luha (l/n, see below) *lightly wounded, split apart, perforated*, Paul nua *itch, scabies*, Sam manuʔa *wounded*, To manuka *be killed (of chief, sovereign)*.

With the first etymology immediately above might be associated the following words: Jav natar, latar, Snd latar *yard, land around the house*. However Bal natah *yard* suggests that Jav natar reflects \*R<sub>34</sub>. Snd latar could be explained from a \*lataR<sub>2</sub>, an etymon with initial \*l correlative to \*DataR<sub>2</sub> (Dempwolff 43) in the same way as \*lemlem *dark* (Dempwolff 95) is correlative with \*DeDem *dark* (Dempwolff 43). Jav latar might then be a Sundanese loanword. Although Snd latar would formally and semantically match the Rukai words - for Snd r is the outcome of \*D as well as \*R<sub>2</sub> - the Bikol word has the advantage of being unambiguous. The further possibility that there may have been an interplay between a \*[lL]ataR<sub>2</sub> more or less homosemantic with a \*NataD is perhaps suggested by the association of Mal, Mad natar, Jav latar *background, basic colour*. Finally one must also consider the possibility that Snd, Jav latar result from a back formation from Snd p̄-latar-an *land on which a building stands, front yard*, Jav p̄-latar-an (*large open (fore) square* which through a dissimilation (l-n/n-n) could be from the same \*p̄-latar-an that is indicated by BalNoble p̄-latar-an beside natar *yard*. Under the hypothesis of a dissimilation and back formation Jav, Snd latar could be associated with \*NataD. Jav natar likewise could be associated, indeed more directly, but Bal natah would remain problematic.

Since only Malay and Toba Batak exhibit initial l in the correspondence, it appears to be simplest to interpret them both as due to a dissimilation in just such a form as a \*ma-Nuka? which might have been the source of Toba ma-luha with luha resulting by the analogical change often called back formation. Malay luka could have resulted in the same way, but, if so, at an earlier time, since there is no occurrent \*ma-luka. In fact it is not unlikely that we might be dealing with a single instance of a dissimilation followed by a back formation that occurred in the last common proto-language of Malay and Toba.

Dahl (1981:105f) has suggested the words supporting the reconstruction of \*NaCeŋ above could be associated with Dempwolff's \*lateŋ *nettle* and offers the suggestion that the nettle is sometimes eaten as a vegetable. The English word *nettle* means a type of herb, and its young leaves are sometimes used in or as food, at least in Europe; on the other hand, all the cognate words of Dempwolff's \*zalateŋ/lateŋ, so far as can be established, refer to a *nettle tree*, *Laportea spp.*, whose leaves have never been reported to be eaten. On the basis of the Formosan evidence we can now reconstruct \*LaCeŋ, SaiTa käh-Laseŋ, SaiTu ra-aseŋ (from \*[zZ]a-LaCeŋ), Puy L-iŋ-aTeŋ (M: ŋ-n/n-ŋ; A: n/l), Ami L-il-ateŋ *nettle tree*, *Laportea pterostigma*. The probable disconnection of the two etyma is favoured by the fact that Ivatan nateŋ above is found beside Ivt hateŋ (with h regularly for Dempwolff's l, here our \*L) *a tree whose leaves on touch cause smarting pain and sores*, since the latter can hardly be dissociated from Dempwolff's \*lateŋ. One might consider the possibility of a common source of the two Ivatan words through, let us say, a dialectal partial assimilation of an early Ivatan or pre-Ivatan initial lateral to the final nasal with subsequent semantic specialisation of one of the resultant doublet members, but this solution seems unnecessarily complicated.

The possibility of the dissimilation of a nasal as well as the partial assimilation of a lateral in relation to a following nasal can lead to uncertainty in the interpretation of the following comparison:

PHN [lN]awuŋ, Pai lauŋ, BunNCS navuŋ *shade*, Sai, Tbt lauŋ *shadow*, Mal nauŋ *shadowing, shelter*.

The purpose of this article has been to indicate that the claim that the reflexes assigned by Tsuchida to \*N and \*l (= TS. \*L) can be regarded as being in complementary distribution faces rather strong opposing evidence. At the same time it should be noted that the area of nasals and laterals has begun to show complications that have not been dealt with here simply because the treatment would involve too many tangents. Naturally it remains possible that the collection of evidence presented here may ultimately receive another interpretation, but it hardly seems likely that the hypothesis of complementation will come to be justified. What seems clearly indicated is that careful investigation is called for to solidify our reconstructive hypotheses in this area.

In the course of the discussion we have presented reasons for believing that Proto-Austronesian had a distinction between a probably voiced lateral (\*l) and a flap (\*L), the latter articulation being found, thus far at any rate, only in the Formosan languages. The merger of \*l and \*N is found in all the Formosan languages with the apparent exception of Kavalan; the evidence for l from \*l in this language is meagre, being limited to the two words (bilauŋ *to count*, talam *to taste*) cited above. Since there is little evidence that can be interpreted as favouring setting Kavalan up as a subgroup by itself, the merger of \*l and \*N can be regarded as evidence for a Proto-Formosan that had an isogloss separating merging and non-merging dialects, the latter continued only by Kavalan.

#### ADDENDUM

To the above evidence for the distinction between \*l and \*N the following can now be added:

\*balluku?, AtyMx baluku?, Kvl bnuqu *winnowing basket*, Bontok balluku *small head-basket*. The Kvl word suggests at least a partial merger of \*l with \*n.

\*lawlaw, Puy lawlaw, Tongan lolo *oil*.

## ABBREVIATIONS OF LANGUAGE NAMES

AmF - Fataan Ami	Ngj - Ngaju(-Dayak)
Aty - Atayal	Pai - Paiwan
AtyMb - Mabatoan Atayal	PAN - Proto-Austronesian
AtyMx - Mayrinax Atayal	Pap - Papora
AtySq - Squliq Atayal	Paul - Paulohi
Bab - Babuza	Paz - Pazeh
Bal - Balinese	PHN - Proto-Hesperonesian
BalNoble - Noble Balinese (Dutch "voornaam")	Png - Pangasinan
Bar - Baree	Puy - Puyuma
Bik - Bikol	Ruk - Rukai
BM - Bolaang Mongondow	RukBd - Budai Rukai
Btk - Batak (Philippine)	RukMg - Maga Rukai
Bun - Bunun	RukMn - Mantaoran Rukai
BunN - Northern Bunun	RukTa - Tanan (Tainan, Dainan) Rukai
BunNC - Northern and Central Bunun	RukTo - Tona Rukai
BunS - Southern Bunun	Sai - Saisiat
Fav - Favorlang	SaiTa - Taai Saisiyat
Fi - Fiji	SaiTu - Tunggho Saisiyat
Hoa - Hoanya	Sam - Samoan
Hlg - Hiligaynon Bisayan	Sar - Saaroa
Ilk - Ilokano	Saw - Sawu
Isg - Isneg	SblBt - Botolan Sambal
Itb - Itbayat	Seb - Sebu
ItgB - Binongan Itneg	Sed - Sediq
Ivt - Ivatan	SedTn - Tongan Sediq
Jav - Javanese	Sir - Siraya
Kan - Kanakanabu	SL - Samar-Leyte Bisayan
KlaG - Guinaang Kalinga	Snd - Sundanese
KlnKl - Keleyqiq Kallahan	Sng - Sangirese
KlnKy - Kayapa Kallahan	Tag - Tagalog
Kmb - Kambara (Sumba)	TBt - Toba Batak
Kvl - Kavalan	Tha - Thao
Mad - Madurese	TbwK - Kalamian Tagbanwa
Mal - Malay	To - Tonga
Mer - Merina	Tso - Tsou
	WBM - Western Bukidnon Manobo

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