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8 NON-PRODUCTIVE INFIXES IN INDONESIAN

Cecilio Lopez, 'Non-productive infixes in Indonesian', *The Archive* 2(2): 43-78 (1971).

ABBREVIATIONS OF LANGUAGES

Apa-Apayao, Akl-Aklan, Bkl-Bikol, Bol-Mong-Bolaang Mongondow, Btk-Bontok, Bug-Bugi, Cha-Chamorro, Cuy-Cuyunon, Hil-Hiligaynon, Hov-Hova (in Dempwolff), Ibg-Ibanag, Ilt-Ilongot, Ilk-Iloko, Ivt-Ivatan, Jav-Javanese, Kuv-Kuvalan, Maa-Maanjan, Mak-Makassar, Mal-Malaya, Mar-Maranao, Mer-Merina (in Dahl), Mgd-Magindanao, Nbl-Nabaloi, NgD-Ngadju-Dayak, Pai-Paiwan, Paz-Pazeh, Pmp-Pampangan, PNeg-Pinatubo Negrito, Png-Pangasinan, Ruk-Rukai, Sam-Ley-Samar-Leyte, Sbl-Sambales, Seb-Sebu, Sir-Siraya, Sun-Sundanese, Tag-Tagalog, Tao-Taosug, Tnt-Tontemboan, ToB-Toba-Batak, Yam-Yami.

CONVENTIONS

Akl *L* is dorso-lateral fricative. Ivt *n̄* is palatal nasal. Sequence of two C's in Ibg and Ilk is geminate C. Colon (:) after a V in Tao indicates length of the preceding V. In Philippine languages I write *q* before a V in initial position only in Tag.

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I. INTRODUCTORY

"NON-PRODUCTIVE" INFIXES in IN do not seem to have attracted the attention they deserve from comparatists. In two of his monographs, Brandstetter speaks of the fusion of formative elements with roots, like *-êr-*, *-êl-*, *-um-* and *-in-*¹ (*-um-* and *-in-* are excluded in this paper) in the formation of stems, and of *-ar-* or *-al-* as formatives producing active verbs in ToB.² Adriani and Dunnebie treat quite in detail in Tnt and Bol-Mong respectively infixes similar to the ones under study, and Kern in his 'Wortels en Grondwoorden' covers a wide field from the comparative point of view. As much as I can ascertain there has been no attempt so far to postulate proto-forms of non-productive infixes.

Dempwolff calls "erstarrte Infixe", without further comment, infixes in his reconstructions of **p-aR-atpat* 'plant', **p-al-upuh* 'vegetable material', and of the doublets **baNah/*bal-aNah* 'vessel', **kebaw/*k-ar-ebaw* 'buffalo', **papah/*pa-al-apah* 'vegetable material'. I exclude **b-uq-ayah* 'crocodile' and the doublets with by-forms **baRuh/*b-aq-aRuh* and **beRuh/*b-aq-eRuh* 'new'.³ The reflexes in IN other than the languages in Dempwolff are: Seb Hil Ilk Bkl Sam-Ley Png Sbl Mgd Tao *p-ag-atpat* 'a plant' (*Sonneratia pagatpat*); Pmp *p-al-upu* 'ridge of the roof'; Ivt *bangaq/vangaq* 'earthen jar, *v-ah-angaq* 'earthen cooking pot; a kind of plate', Pai *v-al-angaq* 'mortar' (Ferrel 529), Sir *v-al-angaq* 'pond' (Ferrel 92); Hil *k-al-abaw/k-ar-abaw*, Bkl Sam-Ley Cuy *k-ar-abaw*, Mgd *kabaw*, Tao *ka:baw* 'water buffalo', Maa Mer *k-ar-awau* 'water buffalo' (Dahl 44, 76), Kuv *kavau/qa:bau/k-r-avao* 'buffalo' (Ferrel 141); Pmp *p-al-apaq*, Bkl *p-ar-aqpaq*, Mgd *p-al-apa*, PNeg *p-al-a-o-pa* 'whole

¹ C. D. Chrétien ('The statistical structure of the proto-Austronesian morph', *Lingua* 14, 1965, p. 245, fn. 8) thinks that we have too lightly laid aside Brandstetter's view that many or most disyllabic word-bases go back to the prefix plus root. If only to serve as a reminder, the relevant passage in Brandstetter deserves to be quoted in full for what it is worth: "Das wichtigste der sprachlichen Mittel, wodurch Grundwoerter aus gebildet werden, besteht darin, dass sieh ein Formans unloeslich mit der Wurzel verdbindet, mit ihr zu einer Einheit erstarrt." (*Wurzel und Wort*, p. 39, par. 86.)

² *Das Verbum*, p. 29, par. 54.

³ See Dyen's comments (1953b), pp. 52-53, fns. 27-29.

leaf of banana and palms', Tao *pa-i-pa* (could have been a misprint for *pa:pa*) 'the midrib of banana and palms'.

The purpose of this paper is to look for additional evidence in IN which may bolster the validity of Dempwolff's "erstarrte Infixe", and construct proto-forms accordingly. The principal sources are Dempwolff's *Austronesisches Woerterverzeichnis* from which are selected PAN forms with infixed reflexes in at least one IN language and with cognates in other languages, and on Philippine languages my unpublished manuscript on a comparative Philippine word-list of about 2,500 items in 23 languages (which is still in the process of revision and expansion), supplemented by printed works. The coverage is rather uneven, some printed works yielding more cognates and others much less.

LIST OF COGNATES AND SUPPLEMENT

C₁V₁C₂C₁V₁C₂

2.1 PAN **dandan* 'bring in order', Sam-Ley *dandan*/*d-al-andan* 'float with the current', Jav Mal *dandan* 'in order', NgD *dandan* 'shipbuilding'.

2.2 PAN **gemgem* 'be dumb; be silent', Tag *g-al-imagim* 'mourn', Jav *g-l-ëmgëm* 'be silent in mourning', NgD *gagom* 'grow dumb'.

2.3 PAN **gakgak* 'laughter'. **gikgik* 'giggling'. Tag *h-al-akhak* 'laughter', *h-al-ikhik* 'giggling', Ilk *gakgak* 'giggling', Png *g-al-akgak* 'laughter' Pmp *g-al-akgak* 'happiness'. Btk *g-al-ikgik* 'giggling', Jav *aka* 'laughter', *iki* 'giggling', Mal *g-l-akak* 'laughter' (Kern 301), Tnt *keqkeq* 'laughter', *k-al-eqkeq* 'laugh often' (Kern 301).

2.4 PAN **kaNkaN* 'spread out; stretch out', Tag *bi-kangkang*, *bu-kangkang* 'spread out the legs', *k-al-angkang* 'place where one can stand only with the legs spread out', Jav Mal *kangkang*, ToB *h-al-akkang* 'stand with the legs spread out', NgD *k-â-angkang* 'propped stall for fumigation'.

2.5 PAN **kemkem* 'keep shut', Tag *kimkim* 'held in clenched fist', ToB *hokkom* 'keep the mouth shut', NgD *k-âr-anggam* 'handful', Bol-Mong *k-oj-ungkum* 'fist' (Dunnebie 581).

2.6 PAN **kiskis* 'scrape; grate', Tag *kiskis* 'rub against', Jav *k-r-êkês* 'begged off', Mal *kikis* 'scrape off', ToB *hishis* 'scraped off', NgD *kikis/ikis* 'scraped'.

2.7 PAN **kubkub* 'cover', Tag *kubkob* 'beleaguer', Jav *kukub* 'covered', *k-r-ukub* 'cover', ToB *huphup* 'covered', NgD *k-âl-ukup* 'cover; lid', *mângokop* 'cover'.

2.8 PAN **citcit* 'chirp; warble; bird's song', Tag Tao *s-ag-itsit* 'hissing, crackling noise (as of fat frying)', Mal *tjitjit* 'chirp; warble', NgD

kâ-sisit 'whistle through the teeth', Hov *tsetsetra* 'smack the tongue as a sign of approbation'.

2.9 PAN **rayray* 'hang', Tag *laylay* 'hanging; dropping', *l-ag-aylay* 'unfurled', Jav *lêrê* 'slip, slide', Tob *rere* 'old mat'.

2.10 PAN **NetNet* 'gnash the teeth', Tag *ngitngit* 'gnash the teeth', Ilk *ngetnget* 'cut with the teeth', *ng-ar-etnget* 'gnash the teeth', Tob *ngotngot* 'pain'.

2.11 PAN **pakpak* 'beat, flap the wings', Tag *pakpak* 'wing; applause', *p-ag-akpak* 'flapping sound', *p-al-akpak* 'applause', Hil *pakpak* 'applause', *p-al-akpak* 'flapping of the wings; applause', Hil *pakpak* *p-al-akpak*, Akl *p-aL-akpak*, Cuy *p-ar-akpak* 'applause', ToB *pakpak* 'flapping of the wings', NgD *pakpak* 'strike, drive a nail'.

2.12 PAN **paspas* 'shake off; clean', Tag *paspas* 'shake off; dust off', *p-ag-aspas* 'flapping', *p-al-aspas* 'palm leaves, esp. those blessed in the church on Palm Sunday', Jav *papas* 'pluck feather', Mal *papas* 'put away clothes', ToB *paspas* 'shake off', NgD *papas*, 'sweep; broom', *p-al-apas* 'wing; flap' (Kahlo 32), Hov *fata* 'sweep; cleanse'.

2.13 PAN **puNpuN* 'gather; collect', Tag *pungpong* 'bouquet', *p-al-umpong* 'plants growing freely in cluster', Seb *pungpong*, *p-al-umpong*, Sam-Ley *pongpong* *p-ar-umpong* 'bouquet; bundle', Hil *pongpong* 'bouquet', *p-al-ongpong* 'cluster of branches', Ilk Bkl *p-al-ungpong* 'stump', NgD *pumpong*, Hov *fumpunâ* 'gather; collect'.

2.14 PAN **taytay* 'step; gangplank; bridge; row', Tag *taytay*, Ibg *tetay/t-al-etay* 'bridge', Ilk *taytay* 'bridge', *t-al-aytay* 'footbridge made of one or more bamboo poles', Png *taytay* 'bridge', *t-al-aytay* 'small bridge', Jav *t-êl-iti* 'parentage', Mal *titi* 'step over a gangplank', ToB *t-al-ete* 'stand for plates', NgD *t-al-étay/táate-an* 'bridge', Hov *teti* 'traverse', *tetez-anâ* 'bridge'.

2.15 PAN **tiNtiN* 'make loose by shaking', Jav *t-r-intjing* 'nimble' (Kern 300), *tingting* 'clean by shaking', Mal ToB *tingting* 'clean by shaking'.

2.16 PAN **tuntun* 'lead; guide; direct', Tag *tuntun* 'trace the cause or effect; claim kinship', *t-ag-untun* 'row; range', *t-al-untun* 'straight row or file; follow or observe strictly' Tao *t-ag-untun* 'hang; dangle', Jav Mal *tuntun* 'lead; guide; direct', ToB *tuttun* 'do deliberately'.

2.17 PAN **TakTak* 'crack; clatter', Tag *taktak* 'hack, Jav *t-r-ata* 'rattle; crattle', ToB *taktak* 'musical instrument'.

2.18 PAN **TekTek* 'knock; rap', Jav *têtêk* 'knock; rap', *t-r-êtêk* 'quake; shiver', Mal *têta* 'knock; rap'.

2.19 PAN **TikTik* 'tap', Tag *tiktik* 'ticking', Jav *titi/têtê* 'tap', *t-r-iti* 'pulverize', Mal *titi*, ToB *tiktik* 'rap', NgD *titik* 'small pieces'.

2.20 PAN **TiNTiN* 'clink; ring clearly', Tag Seb Hil Bkl Sam-Ley *t-ag-inting* 'tinkling; jingling', Mar *t-al-inting* 'shrill, sharp sound', Jav *tingting*, Mal *tinting* 'clink; ring clearly', ToB *tingting* 'notification'.

2.21 N **TukTuk* 'knock', Tag *tuktok* 'knock', *t-ag-uktok* 'sharp, solid sound', Jav *tutu/toto*, Mal *tutu*, ToB *tuktuk* 'knock', Hov *tutuká* 'noise of footsteps'.

2.22 PAN **saksak* 'stab; thrust into', Tag *saksak* 'stab; thrust into', *s-al-aksak* 'thrust into repeatedly', Pmp *saksak* 'stab; thrust into', *s-a-aksak* 'filled; stuffed', Jav *sasa* 'penetrate', Mal *sasa* 'rough bamboo wicker work'.

2.22 PAN **suNsuN* 'go against', Tag *sungsong* 'go against the wind or current; China', *s-al-ungsong* 'go against the wind, current, or crowd of people', Mal *songsong* 'go against', ToB *sungsung* 'participate in a war'.

CVCVC

2.24 PAN **hatay* 'liver; courage', Tag *qatay*, Png *a-l-têy*, Sbl *Apa a-g-tay*, Nbl *a-l-têy*, Ilt *a-g-sê*, Jav *ati*, ToB *ate-ate* 'liver', NgD *atei* 'courage'.

2.25 PAN **hasem* 'sourness', Tag *qasim* 'sourness', *k-asim* 'sour-tart taste', Seb Hil Sam-Ley Akl Mgd Tao *as-l-um*, Ilk *a-l-sem*, Bkl *a-l-som*, Sbl *a-l-hêm*, Cuy *as-l-êm*, Btk *a-r-sum* 'sourness', Pmp *as-l-am*, Ibg Ivt *si-l-am* 'vinegar', Jav *asêm*, Mal *asam*, ToB *asom*, NgD *asem*, Cha *a-g-sum* (Costenoble 93) 'sourness', Tnt *k-êr-êsêm* 'sour; sharp taste' (Kern 301).

2.26 PAN **babak* 'mouth; opening', Tag Pmp *babaq*, Png *baba*, Mgd *bahba* 'chin', Seb Hil *baqbaq*, Sam-Ley *babaq* 'mouth', Jav *b-r-abak* 'speak loud', Mal *babak-an* 'opening of the bowels', ToB *baba* 'opening; muzzle', NgD *bawa* 'call'.

2.27 PAN **bayaN* 'move to and fro', Jav *bayang* 'carry on a barrow or litter', *b-l-ayang* 'wander, roam around', Mal *bayang-bayang* 'shadow'.

2.28 PAN **balaN* 'grasshopper', Tag *balang* locust', Jay *walang*, Mal *balang-balang/b-êl-alang*, Hov *v-al-ala* 'grasshopper'.

2.29 PAN **batek* 'drag', Tag *batak* 'pull', *ba-l-tak* 'pull jerking', Jav *batêk* 'dragged', Mal *batak* 'plundered', NgD *batak* 'misplaced; misplaced'.

2.30 PAN **bekes* 'bundle', Tag *bi-g-kis* 'bundle; diaper; loin-cloth', Seb Bkl Akl *bu-g-kos*, Png *ba-l-kês*, Pmp *bi-g-kis*, Cuy *bê-g-kês* 'bundle', Hil *bi-g-kis* 'diaper', *bu-g-kos* 'bundle', Ilk *bi-g-kis* 'diaper', *b-ar-ikes* 'belt', Mar *b-al-êkês* 'trousers', Mal *bê-r-kas*, ToB *bo-r-hos* 'bundle'.

2.31 PAN **belih/bilih* 'buy', Tag *bili* 'buy; sell', Mal *bêli* 'buy', NgD *bili* 'purchase money', *bali* 'blood-price; blood-fine', Sun *moeli/m-ar-aeli* 'buy' (Kern 299).

2.32 PAN **beN[ih]* 'night', Bkl *bang-g-i*, Pmp *benji* 'evening; night', Jav *bêng/wêng*, ToB *bo-r-ngi-n*, Cha I *po-y-ngi* (Costenoble 55), *pu-enge/po-y-enge* (Costenoble 93) 'night'.

2.33 PAN **be[t]ih* 'roasted rice', Mal *bê-r-tih*, ToB *bo-r-ti* 'grains which burst by roasting'.

2.34 PAN **biyak* 'be divided; be separated', Tag *biyak* 'split open', Jav *b-l-ia* 'make an opening', *wiya* 'open up'.

2.35 PAN **bunuh* 'kill', Tag *bunoq* 'wrestle', Seb *bunoq* 'kill', *bu-g-noq* 'wrestle', Mal *bunuh*, ToB *bunu*, Hov *vunu* 'kill', NgD *buno* 'blood-feud'.

2.36 PAN **dakep* 'add; unite', Tag *dakip* 'catch; arrest', *lakip* 'add; unite; enclose (as with a letter)', ToB *da-l-hop* 'hang on firmly'.

2.37 PAN **zuluk* 'stab; pierce', Tag *duluk* 'stab; pierce', Jav *djulu* 'push high', Mal *djulok* 'tab; pierce', ToB *dju-l-luk* 'bore through', NgD *djulok* 'bring over'.

2.38 PAN **hezan* 'ladder; stairs', Tag Seb Hil Sam-Ley Tao *ha-g-dan*, Ilk *a-g-dan*, Bkl *ha-g-yan*, Png *ha-g-dan-an*, Pmp *eran*, Ibg *addan*, Sbl Ivt *a-y-ran*, Nbl *a-g-chan* 'ladder', NgD *hedjan* 'ladder'.

2.39 PAN **heseN/qaseN* 'breathe loudly', Tag Seb Hil Bkl Sam-Ley Akl *hangos*, Pmp *sunga/angus-angus*, Ibg *angngog*, Cuy *anus* 'gasp; pant', Ilk *anges* 'breathe', Png *êngas* 'gasp; pant', *angêes* 'speak through the nose', Jav *sêng* 'speak through the nose', Mal *êsang* 'blow one's nose', ToB *hosong* 'asthma', *o-r-song* 'breathe heavily'.

2.40 PAN **gebe[r]* 'cover', Jav *gêbêr* 'curtain' (Kern 303), *gabag* 'very coarse bamboo wicker-work', Mal *gêbar* 'cover', NgD *gabab* 'a kind of coarse instrument', Sun *g-al-abag* 'sunhat made of wide bamboo strips' (Kern 303).

2.41 PAN **gemuk* 'be fat', Jav *gêmu* 'cart-grease', Mal *gêmu* 'be fat; be thick', ToB *go-l-mok* 'be thick'.

2.42 PAN **giliN* 'roll; grind; rub', Tag *giling* 'grind', Jav Mal ToB *giling* 'roll; grind', NgD *giling* 'turn; twist', Sun *geleng* 'ride, turn around', *g-ar-eleng/g-er-eleng* 'roll' (Kern 300).

2.43 PAN **gi[t]ik* 'tickle', Tag *k-il-itiq*, Sam-Ley *g-er-etek-getek*, Mal *g-êl-iti* 'tickle'.

2.44 PAN **hilaw* 'reflect', Tag *qilaw* 'light (as from a candle, lamp)', Jav *ilo* 'be reflected', Mal *ilaw* 'reflect', ToB *hi-l-lo* 'mirror', NgD *ilaw* 'reflection on the mirror; soul'.

2.45 PAN **kawit* 'hook', Tag Png *kawit/k-al-awit*, Seb *kawit/k-al-awit*, Hil *kawit/k-al-awit*, Ilk *kawit/k-al-awit*, Pmp *k-al-ait* 'hook', Bkl *kawit* 'hook', *k-al-awit* 'harpoon', Sam-Ley *kawit/kahit* 'hook', *k-al-awit* 'harpoon', PNeg *k-al-awit* 'a type of knife', Mar *k-al-awit* 'tendrill', Mal *kait*, ToB *hait* 'hook', NgD *kawit* 'hook' (Kern 303), *k-ar-ait/k-r-ait* 'entwined; twisted', Tnt *k-ol-owit* 'barbed javelin' (Adriani 187).

2.46 PAN **keTak* 'make noise', Jav *kêta* 'crack; crackle', *k-l-êta* 'crack the teeth', Mal *kêta* 'crack; crackle'.

2.47 PAN **kesaq* 'breathe aloud', Jav *gêsah/g-êr-êsah* 'sigh', Mal *kêsah* 'groan', ToB *hosa* 'breathe'.

2.48 PAN **kesik* 'rough sand; gravel', Mal *kê-r-si*, ToB *ho-r-sik* 'rough sand; gravel'.

2.49 PAN **kilap* 'gleam; glitter', Tag *ki-s-lap*, Seb Sam-Ley *ki-d-lap*, Hil *kilap/ki-d-lap*, Png *ki-d-lap/ki-r-lap*, Sbl *ki-r-lap* 'sparkle; twinkle', Mal *kilap* 'gleam/glitter', ToB *hilap* 'lightning', Bug *tj-ar-ila-kila*, Mak *tji-l-la* 'glimmer; glitter' (Matthes 57), Sun *gilap* 'glimmer; glitter', *g-ur-ilap* 'give out light' (Kern 302).

2.50 PAN **kiwah* 'left', Tag *k-al-iwah*, Jav *kiwa*, Hov *havi-a* 'left', Mal *kinca* 'be awkward'.

2.51 PAN **kuDug* 'thunder', Tag *kulog* 'thunder', Jav *k-r-udug*/*g-l-udug* 'dull sound; thud', Bug *gut* 'thunder', *g-al-utu* 'give a strong cracking sound (as a strong thunderclap)' (Matthes 57).

2.52 PAN **kuhan* 'arrangement; regulation', Tag *kuwan* 'what-you-may-call-it', Jav *kon* 'order; command', NgD *kuan/k-ar-uan* 'brought to order'.

2.53 PAN **kukuh* 'claw; finger and toe nail', Tag *kuko* 'finger and toe nail', Jav Mal *kuku* 'claw; nail', Bol-Mong *k-on-uku* 'nail; hoof' (Dunnebie 581), For *k-al-ongkong* 'claw; talon' (Kahlo 40), Paz *k-al-i-ku* 'claw; nail', *k-al-ikuk* 'finger nail' (Ferrell 209), *k-al-ongkong* 'claw; nail' (Brandes 56), Ruk *k-al-okoa/k-al-okua* 'claw; finger nail' (Ferrell 133), Sir *k-al-ongkong/k-al-ungkung* 'finger nail' (Ferrell 209).

2.54 PAN **kupas* 'come off in thin layers', Tag *kupas* 'fade; be discolored', Mal *kupas* 'come off in thin layers', NgD *kupas/kupis* 'fibrous covering', *k-al-upus* 'scab'.

2.55 PAN **cabut* 'pick; pluck', Jav Mal *tjabut*, ToB *sa-r-but* 'pick; pluck'.

2.56 PAN **cemed* 'be not clean', Jav *tjemêr* 'be not clean', *tj-êr-êmêd/tj-r-êmêd* 'unchaste; impure', Mal *tjemêr/samar* 'be not clean', ToB *somor-somor* 'be worthless'.

2.57 PAN **pagut* 'peck; pick', Jav *pagut* 'lay hands on; seize', Mal *pagut*, ToB *pagut/pa-r-gut* 'peck; pick'.

2.58 PAN **pajay* 'rice-plant; unhulled rice', Tag Hil Mgd *palay*, Ilk Ibg *pagay*, Bkl *paray/paroy*, Png Nbl *pagêy*, Pmp *pale*, Akl *paLay*, Sbl *pali*, Ivt *palay/paray*, Ilt *pagê*, Tao *pa-i*, Jav *pari*, Mal *padi* 'rice-plant; unhulled rice', ToB *pa-l-ge*, NgD *parey* 'unhulled rice'.

2.59 PAN **pesan* 'carry on the shoulder', Tag *pa-sa-r*, Seb Hil Sam-Ley *pasqan*, Bkl Tao *paqsan*, ToB *po-r-san* 'carry on the shoulder', Mal *pêsan* 'burden'.

2.60 PAN **putiq* 'whiteness', Tag *putiq* 'white', Seb Hil Sam-Ley *put-l-iq* 'clean', Jay Mal *putih*, ToB NgD *puti* 'whiteness'.

2.61 PAN **saNit* 'singe; stink', Tag *sangit* 'grimace', *tangis* 'weep', Hil Bkl Sam-Ley Pmp Akl Tao *tangis*, Ilk *sangit*, Ibg *tangiq* Sbl *tangih*, Cuy *sangêt* 'weep', Ivt *sangêt* 'grimace', *tañis* 'weep', Jav Mal *sangit* 'singed', ToB *sa-l-ngit* 'stink', NgD *ha-hangit* 'be burned'.

2.62 PAN **silak* 'ray of light', Tag *bu-silak* 'extremely white', Jav *sila* 'beam; ray', ToB *si-l-lak* 'be bright', NgD *silak* 'slit; slash'.

2.63 PAN *[t]akut 'fear; be afraid', Tag *takot* 'fear, be afraid', Ilk *tak-r-ot* 'fear', Ibg *ta-r-kg* 'coward', Mal *takut*, ToB *tahut* 'be afraid'.

2.64 PAN *[t]amis 'be sweet', Tag *tamis*, Seb *tamqis* Hil Sam-Ley *tamqis/yamqis*, Ilk *samit/samqit*, Bkl *tamqis/hamis/yamqis*, Png *samit*, Sbl *hamit* 'sweetness', Akl *samit* 'taste', ToB *ta-l-mis* 'be fat'.

2.65 PAN **tapak* 'palm of the hand; sole of the foot', Tag *tapak*, Pmp *ta-l-pak/da-l-pak* 'step on', Png *tapak* 'step on lightly', *ta-l-pak* 'trample upon', Mar *d-al-êpêk*, Jav *tapa* 'footsteps', Mal *tapa* 'palm of the hand; sole of the foot', ToB *tapak* 'sandal'.

2.66 PAN *[t]ebas 'cut off; cut down; fell', Tag *tabas/tibas* 'cut down (as a banana plant)', Seb Bkl Mgd Tao *ti-g-bas*, Ivt *ti-l-pas* 'cut off', Hil *ti-g-bas/ti-g-pas*, Pmp *ti-g-bas* 'cut branches of trees', Ilk *ta-g-bat* 'stab; pierce', Sam-Ley *ta-g-bas* 'cut off', *ti-g-bas* 'stab', Mal *têbas* 'chop off', NgD *tewas* 'cut off; cut down'.

2.67 PAN *[t]eluk 'inlet; bay', Mal *têlu*, ToB *to-r-luk*, NgD *telok* 'inlet; bay'.

2.68 PAN **tipis/nipis* 'be thin', Tag *nipis* 'thinness', Jav Mal *tipis* 'be thin', Yam *ma-t-ar-ipsis* 'thin (as book)' (Ferrell 371).

2.69. PAN **titis* 'drop; drip', Tag *titis* 'cigar and cigaret snuff', Jav *titis/t-r-itis*, NgD *titis* 'drip', Mal *titis* 'drop', Tob *titis* 'become less'.

2.70 PAN **sisik* 'pick louse-eggs', Tag *hi-niksik*, Jav Mal *s-êl-isi*, ToB *sisik* 'pick louse-eggs'.

CVCCVC with -CC- homorganic nasal combination

2.71 PAN **zuNkuk* 'be bent; be crooked', Jav *djungk-r-uk* 'sit bent up; Mal *djongko* 'crouch'.

2.72 PAN **genDaN* 'kettle-drum', NgD *gandang* 'kettle-drum', Sun *gêndêng* 'grumble', *g-êl-êndêng* 'frequentative of *gêndêng*', *g-êr-ên-dêng* 'dull sound' (Kern 302).

2.73 PAN **kenTuN* 'bird-rattle', Jav *k-êl-êntung*, Mal *kentung* 'bird-rattle'.

2.74 PAN **panta[r]* 'elevation', Tag *pantal* 'pustule', ToB *pattar* 'elevated floor', NgD *pantar* 'mast put up during feast for the dead', *p-ar-antar-an* 'lobby; gallery'.

2.75 PAN **sintak* 'move with a start; jolt; jerk', Tag *sintak* 'a game played with small shells or pebbles', Jav *sênta* 'move with a start', Mal *senta* 'jolt; jerk', NgD *sintak* 'jolt; jerk', *s-al-entak* 'smack with the tongue'.

2.76 PAN **humbak* 'wave; vault; arching', Tag *humbak* 'empty feeling in the stomach', Jav *umba/omba*, Mal *omba*, ToB *umbak* 'wave', NgD *g-al-umbang* 'wave' (Kahlo 27).

CV(C)CVC with -(C)- facultative homorganic nasal

2.77 PAN **be(N)kuN* 'vault; arch', Tag Seb Hil Bkl Sam-Ley *bingkong* 'concave' Jav *p-el-engkung* 'semi-circle' (Kahlo 18), Mal *bêngkung* 'twisted', ToB *bokkung* 'hump; bend', NgD *bâ-bengkung* 'be bent or 'twisted', *b-âal-engkung* 'throat'.

2.78 PAN **da(n)daN* 'become heated', Tag *dandang/darang* 'exposed to fire', *d-ag-andang* 'exposed heavily to fire', Jav Mal *dandang* 'steaming pot', ToB *dadang* 'singed; scorched'.

2.79 PAN **[h]e(n)Tik* 'be small', Tag *quntiq/quntik* 'few; little', *m-untiq/m-untik* 'almost', Jav *ênti* 'pigmy; mannikin', *k-êti* 'make small', ToB *otik* 'be few; be little', *o-l-tik* 'have little life'.

2.80 PAN **ka(m)pak* 'beat with a crackling sound; axe', Tag *kapak* 'sound of beating', Jav *kampa* 'a big axe', *k-r-ap-y-a* 'rattle; crackle', Mal *kapa*, NgD *kapak* 'axe', ToB *hapak-hapak* 'rattle'.

2.81 PAN **ke(m)buN* 'be inflated', Tag *kubong* 'veil', *k-ul-ubong* 'cover the head and whole body (as with a blanket)', Jav Mal *kêmbung* 'swollen', ToB *hombung* 'big box', NgD *kembong* 'inflated', Sun *k-ar-êm-bêng* 'depository for rice' (Kern 302).

2.82 PAN **ke(n)Te[r]* 'tremble; shudder; vibrate', Tag *katal* 'shiver', Jav *kêtêr* 'tremble; shudder; vibrate', *kêntêr* 'stretch; expand', Mal *kêtar*, *gêtar/g-êl-êtar*, *gêntar/g-êm-êntar*, NgD *ketar* 'tremble; shudder; vibrate', ToB *hotor* 'stretched, expanded rope made of rattan', *hottor* 'tremble; shudder; vibrate'.

2.83 PAN **pa(n)tuk* 'peck', Jav *patu* 'beak; bill' (Kern 302), *p-l-atuk* 'woodpecker', Mal *patu* 'peck', *p-êl-atu* 'woodpecker', NgD *patok* 'peck'.

2.84 PAN **ta(N)kub* 'cover; lid; tilt over', Tag *takob* 'cover; lid', *tak-l-ob* 'put lid on; put face-to-face with counterpart half', Bkl *takob/tak-l-ob* 'cover; lid', Jav *tangkêb* 'join; fit', *t-êl-akup* 'ear-flap', Mal *tangkub* 'shut tightly', ToB *takkup* 'agree', NgD *tangkop/t-al-angkop* 'turn one upon another'.

2.85 PAN **tu(n)duq/*[t]unzuk* 'show; point out', Tag *turoq* 'show; point out; teach', Seb *tud-l-oq/tu-k-doq* 'show; teach', *tu-t-doq* 'point out', Akl *tud-L-oq*, Cuy *tud-l-oq* 'finger', Ivt *tudu* 'pointer', *tungdo* 'index finger', Apa *tu-l-du* 'advice', Tao *hinduq* 'show; teach', *tudju* 'course; direction', *tud-l-uq* index finger', Jav *tuduh*, ToB *tudu* 'show; point out', Mal *tundju* 'show; point out', *t-êl-undju* 'index finger', *tuduh* 'accuse of; charge with', NgD *tundjok* 'point with the finger', Bol-Mong *t-on-on-ujung* 'index finger' (Dunnebie 581).

2.86 PAN **si(m)paN* 'side-road; forking of a road', Jav *simpang* deviate; swerve; diverge', Mal *simpang* 'side-road', NgD *simpang* 'fork; pitchfork; fish spear', ToB *si-r-pang* 'side-road; the way to the world to come'.

IN C.V.C.C.V.C₁V.C₂ without PAN reconstruction

2.87 Tag *k-al-ingking-an*, Mal *k-el-ingking* (Dahl 52, 303), Cha I *k-al-ingking-an* (Costenoble 27) 'little finger'.

2.88 Tag *baging*, Seb Hill *bagon/b-al-agon*, Bkl *ba-l-gon*, Sam-Ley *b-al-agon*, Akl *b-aL-agon*, Cuy *b-al-agin*, Tao *b-al-agin* 'vine'.

2.89 Tag *banak*, Ilk Bkl Sam-Ley Png Pmp Cuy Mar Tao *b-al-anak*, Akl *b-aL-anak* 'a species of mullet (Mugil spp.)'.

2.90 Tag *bangos*, Hil *bangos/bang-r-os*, Sam-Ley *bang-r-us*, Akl *bangos/bang-L-os* 'milkfish (Chanos chanos)'.

2.91 Jav *bênging* 'bright; clean' (Kern 303), Sun *bênging* 'bright; clean', *b-êl-ênging* 'very clean premises' (Kern 303).

2.92 Tag *bunot*, Hil Akl *bu-g-not*, Bkl *bu-g-not/bun-l-ot*, Sam-Ley *bunot/bun-l-ot*, Ivt *vunut/vu-l-mut* 'pull out'.

2.93 Tag *dapaq*, Cuy *da-g-paq*, Mar *t-al-a-g-pa* 'lie; fall on the stomach'.

2.94 Tag *dayap*, Hil PNeg *dayap/d-al-ayap*, Ilk Png Pmp Ivt Apa Ilt *d-al-ayap*, Ibg *d-al-ayaq* Sbl *d-al-aya* 'a citrus fruit (Citrus lima)'.

2.95 Tag *hagak*, Cuy *al-agêk* 'gasp; pant', Hil *hag-r-aq/hag-r-ak*, Sam-Ley *h-ar-agak* 'hoarse', Pmp *al-akak* 'pant; snore'.

2.96 Tag *pikat* 'compact and gluey soil', Mal *pêkat* 'thick liquid', *p-êr-êkat* 'lime; cement' (Kern 303).

2.97 Tag *susog* 'goring (sewing)', Mar *s-al-usog* 'stitch'.

Supplement: Selected infixes without PAN reconstructions and occurring only in one language.

2.98 Mak *b-al-umbang* 'dust storm' (Kahlo 27).

2.99 Bol-Mong *b-ar-ongkaq/b-aL-ongkaq* 'a species of pumpkin (Dunnebie 580)'.

2.100 Sun *budak/b-ar-udak* 'crack; snap' (Kern 299).

2.101 Bol-Mong *b-uL-al-engkoq* 'a spirit' (Dunnebie 579).

2.102 Tag *dakot* 'handful; hold in clenched fist', *dal-l-ot* 'snatch'.

2.103 Bug *geno/g-ar-eno* 'necklace' (Matthes 57).

2.104 Tag *kangkang/k-ay-angkang* 'drying of chicken in the sun; move stiffly (like one suffering from dhobie itch)'.

2.105 Mak *k-al-orang* 'incision' (Kahlo 27).

2.106 Bol-Mong *k-ar-eket/k-or-eket* 'creaking; grinding; chirping' (Dunnebie 580).

2.107 Bol-Mong *k-ol-uda/k-uL-uL-uda* 'dye-plant' (Dunnebie 578).

2.108 Tnt *k-um-al-eqkew* 'sprawl; flounder' (Adriani 186).

2.109 Sun *loempang/l-al-oempang* 'go' (Kern 209).

2.110 Tag *paqos/p-ay-aqos* 'hoarse'.

2.111 Tag *pikpik/p-ay-ikpik* 'compact (as soil)'.

2.112 Tag *sinsin* 'close; thick (as fabric, a crowd)', *s-ag-insin* 'close together; hemmed in (as clothes on a line)'.

2.113 Bug *suke/s-al-uke* 'pick out' (Matthes 57).

2.114 Jav *t-al-utuh/t-l-utuh* 'flow on' (Kern 300).

2.115 Jav *t-er-antjang/t-r-antjang* 'transparent' (Kern 300).

2.116 Sun *tihola/tih-ar-oela* 'in front' (Kern 209).

SUMMARY

3.1 The infix consists either of two phonemes in the shape -VC- or of one C-phoneme only. (A single -V- infix in some items is suspect.)

3.2 Infixation follows a general pattern, i.e. after the initial C of the stem if the infix is -VC-. If the infix is one C-phoneme only, the distribution varies: after the initial C of the stem, as in 2.2 Jav *g-l-êmgem*, after the first syllable ending in a V, as in the reflexes in some Philippine languages of 2.25 PAN **hasem*, in 2.29 Tag *ba-l-tak*, 2.33 Mal *bê-r-tih*, 2.36 ToB *da-l-hop*, 2.65 Pmp *ta-l-pak/da-l-pak*, or after the initial C of the second syllable, as in 2.60 Seb Hil Sam-Ley *put-l-iq*, 2.85 Seb Cuy *tud-l-oq*, Tao *tud-l-uq*, 2.92 Bkl Sam-Ley *bun-l-ot*, 2.102 Tag *dak-l-ot*.

3.3 Some bare and infixed stems alternate.

3.4 Different -VC- infixes of the same stem alternate, as in 2.42 Sun *g-ar-eleng g-er-eleng*, 2.99 Bol-Mong *b-ar-ongkaq b-aL-ongkaq*, 2.106 Bol-Mong *k-ar-eket/k-or-eket*.

3.5 -VC- infix alternates with -C- infix in the same stem, as in 2.45 NgD *k-ar-ait/k-r-ait*, 2.56 Jav *tj-êr-emed/tj-r-emed*, 2.114 Jav *t-al-utuh/t-l-utuh*.

3.6 Bol-Mong is unique with forms of more than one -VC- infix in succession, with or without alternant, as in 2.85 *t-on-on-ujuq*, 2.101 *b-uL-al-engkoq*, 2.107 *k-ol-uda/k-uL-uL-uda*. (Unique also are 2.80 Jav *k-r-ap-y-a* with double "erstarrte Infixe", according to Dempwolff, I, 28, c, and 2.93 Mar *t-al-a-g-pa* with -VC- . . . -C infixes.) Double infixes also occur in certain languages of northern Luzon.

3.7 So powerful is the pattern with infixes that PAN reconstructions without them are reflected with infixes.⁴

⁴ For example, in Ilk. stems formed by reduplication of C₁V₁C₂ roots, often with symbolic connotation, admit a -V-, generally identical with V₁, infixed between the reduplicated root, and also a -VC-, usually -al- or -ar-, after the first C of the stem. Examples are *dugdug* 'solid sound', *dug-u-dug* 'more solid sound', *d-al-ug-u-dug/d-al-ag-u-dug* 'very solid sound', *pakpak* 'flapping sound', *pak-a-pak* 'stronger flapping than *pakpak*', *p-ar-ak-a-pak* 'very strong flapping sound'. The -V- may not be identical with V₁. Example: *putput* 'sound like that produced by sugarcane juice when it is getting thick when boiled into molasses', *put-i-put* 'sound stronger than *putput*',

3.8 And by contamination infixation extends to other words, with or without cognates, which are not reflexes of proto-forms.

3.9 Bare and infixed stems may or may not have differences in meaning. Where the meanings of infixed stems are transparent, these are generally either augmentative, frequentative, plural, or diminutive. But there are cases where the distinction is not always clear-cut.⁵

DISCUSSION

4.1 Dempwolff's "erstarrte Infixe" include **-aR-*, **-al-* and **-ar-*. He is silent about *-êl-* and *-êr-* very likely because these are formatives with roots, not with stems (see INTRODUCTORY). A few years after the publication of Dempwolff's three-volume work, in his 'Wortels en Grondwoorden' published in 1942, Kern gives examples in Jav Mal and Sun with *-êl-* and *-êr-* as formatives with stems, and he calls the pepet original (*oorsprongkelijk*).⁶

4.2 The most common and widespread infix is *-al-*, which is direct inheritance from **-al-*, unless it reflects **-ar-*. Also common with varying degrees of frequency and geographical limits of distribution are *-ar-*, *-ag-*, *-êl-* and *-êr-*, with *-ar-*, directly inherited from **-ar-* occurring in Bol-Mong Bug Hov Maa NgD Sun and Yam, but not in Jav and Mal in the items in the List,⁷ and in the Philippine languages in Bkl Ilk Sam-Ley and Cuy. In the other Philippine languages, it is possi-

p-al-ut-i-put/p-al-at-i-put 'sound stronger than *put-i-put*'. The meaning is obviously intensification and can be ranked into degrees like the traditional degrees of adjectives, that is, if C₁V₁C₂C₁V₁C₂ is positive, then C₁V₁C₂-V-C₁V₁C₂ is comparative, and C₁-VC-V₁C₂-V-C₁V₁C₂ is superlative.

⁵ See Adriani, p. 185 ff., Dunnebier, p. 574 ff., and Kern, p. 301.

⁶ *loc. cit.*

⁷ The List can not be expected to do justice to the wealth of infixes because the number of items is not as exhaustive as one would have wished it to be. For example, Adriani, *loc. cit.* enumerates for Tnt *-al-*, *-al-*, *-ar-*, *-er-*, *-il-*, *-ol-*, *-or-*, *-ul-*, *-uj-* and *-ur-*, and Dunnebier, *loc. cit.*, for Bol-Mong *-al-*, *-ol-*, *-ul-*, *-ar-*, *-oj-*, *-uj-*, *-or-*, *-on-* and *-un-*.

Viray discusses -CV-, not -VC-, infixes in certain Philippine languages, of the series *-la-*, *-li-*, *-lo-/lu-* and *-ra-*, *-ri-*, *-ro-*, and *-al-*. Some examples are: Seb *ta-la-hor-on* 'respectable' (*tahod* 'respect'), *i-li-mn-on* 'water or liquor to be taken' (*inum* 'drink'), *bo-lo-babay* 'like a woman' (*babaye* 'woman'), *bu-lut-hat-on* 'work to be done' (*buhat* 'do'); Hil *ma-sa-la-kit-on* 'very sickly' (*sakit* 'sick'), *naga-i-li-num* 'drinking a little', *po-lo-panday* 'carpenter of little experience' (*panday* 'carpenter'), *bu-lu-hat-on* 'work to be done' (*buhat* 'do'); Bkl *sa-ra-dang-on* 'very

ble that *-al-* and *-ar-* have fallen together. On the other hand, *-ag-* (from **aR-*) is confined to Philippine territory, and *-el-* and *-êr-* (from **el-* and **er-*, with the latter another spelling of **el-* to be consistent with **ar- = *ar-*) to Jav Mal Sun, and *-êr-* to Tnt.

4.3 The rest of the *-VC-* infixes are either regular reflexes of the "erstarrte Infixe", the results of secondary phonetic changes, or due to borrowing, dialect differences, or analogy and contamination.

4.4 To avoid tiresome repetition, for the phenomena raised in 4.3 the reader is referred to the works of Brandes, Brandstetter, Conant, Dempwolff, Kern, Dyen, Adriani, Dunnebie and Matthes.

4.5 The *-VC-* infix may suffer loss of the V leaving *-C-* either as alternant of the *-VC-* infix, or a residual infix by itself, or as an alternant of another residual infix.

4.6 The most common and widespread residual infixes are *-l-*, *-g-* and *-r-* in descending order of frequency, and which can be putative residues of *-a^l-*, *-ag-* and *-ar-*, respectively. *-l-* is found in almost all Philippine languages, and in Jav Mak ToB. *-g-* is found exclusively in almost all Philippine languages, and in Cha. *-r-* occurs sporadically in a few Philippine languages, and in Jav Mal NgD ToB, including Kuv. *-y-*, a putative residue of *-ay-*, which is the regular reflex of **aR-* in some languages, is found in Ivt Sbl and Cha. (A deviant *-ay-* for the expected *ag-*, from **aR-*, occurs in Tag 2.104 *k-ay-ang-kang*, 2.110 *p-ay-aqos*, 2.111 *p-ay-ikpik*.) The other extremely rare residual infixes, like *-s-* in 2.49 Tag *ki-s-lap*, *-k-* in 2.85 Seb *tu-k-dog*, are highly suspect and discrepant. Striking is the

small' (*sadang* 'small *ka-i-ri-ba* 'companions' (*kaiba* 'companion'), *ka-ro-kanding* 'small goat' (*kanding* 'goat'); Sam-Ley *da-ra-yeg-on* 'venerable' (*dayeg* 'revere'), *si-ri-ngba-han* 'place of hearing mass' (*singba* 'go to church'); Ibg *mao-wa-ra-gi* 'more than two who are siblings' (*wagi* 'sibling'), *map-pi-ri-tta* 'more than two who are cousins' (*pitta* 'cousin'). The distribution of the infixes is *-lV-* in Seb and Hil, *-rV-* in Bkl and Sam-Ley, of the Central Philippine Group, and also *-rV-* in Ibg of the Northern Luzon Group. Except for *-ro-* in Bkl *ka-ro-kanding*, vowel harmony plays a preponderant role in the choice of the infix. The meaning conveyed is augmentative or intensive, frequentative, plural or diminutive (cf. 3. 9). A superficial inspection may lead to the suspicion that these infixes are metathesized variants of the corresponding *-VC-* infixes, particularly those in Tnt and Bol-Mong.

fact that there seems to be no residual infix in Bol-Mong Bug Hov Maa NgD Sun Tnt and the languages of Taiwan.

4.7 The reduction of *-VC-* to *-C-* may be attributed to several factors: the structure of the word of a language, like Jav, which tolerates C-clusters in initial position, the system of accentuation, contiguity to a pepet, or secondary phonetic changes. Accentuation in IN, unfortunately, has not been sufficiently explored, and Brandstetter's (1915) bound (*gebundener*) and free (*freier*) accent is not of much help. Kern has broken the trail for further exploration which might help clarify the matter of reduction, which involves distribution raised in 3.2. In the meanwhile, solution to this problem may interest future investigators.

CONCLUSION

5.1 The infixes tend to cluster in certain languages of the western and northern groups of IN.

5.2 The reflexes of Dempwolff's "erstarrte Infixe" have remained non-productive in many cases and productive in others, the latter very likely due to some cultural and historical and other reasons which at the moment must remain unexplained.

5.3 Some problems, particularly those raised in 4.6 and 7, await solution.

5.4 In spite of the caveat, evidences point to the justification and validity of retaining Dempwolff's construction of **aR-*, **a^l-* and **ar-*, to which may now be added **el-* and **er-*.

5.5 Because some infixes are productive, I hesitate to remove the quotation marks from the title of this paper "Non-productive" Infixes in Indonesian Languages.

APPENDIX

Frequency of occurrence of infixes. Infixes are followed by the numbers of the items where they occur in the *List* and the *Introductory*.

Apayao: *-al-* 2.94; *-g-* 2.24; *-l-* 2.85.

Aklan: *-aL-* 2.11, 2.88, 2.89; *-g-* 2.30, 2.92; *-L-* 2.85, 2.90; *-l-* 2.25.

Bikol: *-ag-* 2.20; *-al-* 2.11, 2.13, 2.45, 2.89; *-g-* 2.30, 2.32, 2.66, 2.92; *-l-* 2.25, 2.84, 2.88, 2.92.

Bolaang Mongodow: *-aL-* 2.99; *-ar-* 2.99, 2.106; *-oj-* 2.5; *-ol-* 2.107; *-on-* 2.53; *-on-* + *-on-* 2.85; *-or-* 2.106; *uL-* + *-aL-* 2.101; *-uL-* + *-uL-* 2.107.

Bontok: *-al-* 2.3; *-r-* 2.25.

Bugi: -al- 2.51, 2.113; -ar- 2.49, 2.103.
 Chamorro: -al- 2.87; -e- 2.32; -g- 2.25; -y- 2.32.
 Cuyunon: -al- 2.88, 2.89; -ar- 2.11; -g- 2.30, 2.93; -l- 2.25, 2.85.
 Formosa: -al- 2.53.
 Hiligaynon: -ag- 2.20; -al- 2.11, 2.13, 2.45, 2.88, 2.94; -d- 2.49; -g- 2.30, 2.38, 2.66, 2.92; -l- 2.25, 2.60; -r- 2.90, 2.95.
 Hova/Merina: -al- 2.28; -ar- *Introductory*.
 Ibanag: -al- 2.14, 2.94; -l- 2.25; -r- 2.63.
 Ivatan: -al- 2.94; -l- 2.25, 2.66, 2.92; -y- 2.38.
 Ilongot: -al- 2.94; -g- 2.24.
 Iloko: -al- 2.13, 2.14, 2.89, 2.94; -all- 2.45; -ar- 2.10, 2.30; -g- 2.30, 2.38, 2.66; -l- 2.25; -r- 2.63.
 Javanese: -al- 2.114; -el- 2.77; -êl- 2.14, 2.70, 2.73, 2.84; -êr- 2.47, 2.56, 2.115; -l- 2.2, 2.27, 2.34, 2.46, 2.51, 2.83, 2.114; -r- 2.6, 2.7, 2.15, 2.17, 2.18, 2.19, 2.26, 2.51, 2.56, 2.69, 2.71, 2.115; -r- ... -y- 2.80.
 Kuvalan: -r- *Introductory*.
 Maanjan: -ar- *Introductory*.
 Magindanao: -g- 2.66; -l- 2.25.
 Makassar: -al- 2.98 2.105; -l- 2.49.
 Malay: -el- 2.87; -êl- 2.28, 2.43, 2.70, 2.82, 2.83, 2.85; -em- 2.82; -êr- 2.96; -r- 2.30, 2.33, 2.48.
 Maranao: -al- 2.20, 2.45, 2.65, 2.89, 2.97; -al- ... -g- 2.93.
 Nabaloi: -g- 2.38; -l- 2.24.
 Ngadju-Dayak: -al- 2.12, 2.14, 2.54, 2.76, 2.84; -âl- 2.4, 2.7, 2.75, 2.77; -ar- 2.45, 2.52, 2.74; -âr- 2.5; -r- 2.45.
 Paiwan: -al- *Introductory*.
 Pampangan: -al- 2.3, 2.22, 2.45, 2.89, 2.94; -g- 2.30, 2.66; -l- 2.25, 2.65.
 Pangasinan: -al- 2.3, 2.14, 2.45, 2.89, 2.94; -d- 2.49.
 Paze: -al- 2.53.
 Pinatubo Negrito: -al- 2.45, 2.94.
 Rukai: -al- 2.53.
 Sam-Ley: -ag- 2.20; -al- 2.1, 2.45, 2.88, 2.89; -ar- 2.13, 2.95; -er- 2.43; -d- 2.49; -g- 2.38; -l- 2.25, 2.60, 2.92; -r- 2.90.
 Sambales: -al- 2.11, 2.94; -g- 2.24; -l- 2.25; -r- 2.49; -y- 2.38.
 Sebu: -ag- 2.20; -al- 2.13, 2.45, 2.88; -d- 2.49; -g- 2.30, 2.35, 2.38, 2.66; -k- 2.85; -l- 2.25, 2.60, 2.85; -t- 2.85.
 Siraya: -al- *Introductory*, 2.53.
 Sundanese: -al- 2.40, 2.109; -ar- 2.31, 2.42, 2.81 2.100, 2.116; -êl- 2.72, 2.91; -er- 2.42; -êr- 2.72; -ur- 2.49.
 Tagalog: -ag- 2.8, 2.9, 2.11, 2.12, 2.16, 2.20, 2.21, 2.78, 2.112; -al- 2.2, 2.3, 2.4, 2.11, 2.12, 2.13, 2.16, 2.22, 2.23, 2.45, 2.50, 2.87; -ay- 2.104, 2.110, 2.111; -g- 2.30 2.38; -l- 2.29, 2.84, 2.102; -il- 2.43; -s- 2.49; -ul- 2.81.
 Taosug: -ag- 2.8; -al- 2.88, 2.89; -ay- 2.16; -g- 2.38, 2.66; -l- 2.25, 2.85.
 Toba-Batak: -al- 2.4, 2.14; -l- 2.36, 2.37, 2.41, 2.44, 2.58, 2.61, 2.62, 2.64, 2.79; -r- 2.30, 2.32, 2.33, 2.39, 2.48, 2.55, 2.57, 2.59, 2.67, 2.86.
 Tontemboan: -al- 2.3, 2.108; -êr- 2.25; -ol- 2.45.
 Yami: -ar- 2.68.

9 MEDIAL NASAL CLUSTERS IN INDONESIAN

Cecilio Lopez, 'Medial nasal clusters in Indonesian', *The Archive* (New Series) 3(2): 113-168 (1972).

ABBREVIATIONS AND CONVENTIONS

Akl. — Aklan, Apa. — Apayao, Bkl. — Bikol, Btk. — Bontok, Cha. — Chamorro, Cuy. — Cuyunon, Fij. — Fiji, Fut. — Futuna, Hil. — Hiligaynon, Hov. — Hova, Ibg. — Ibanag, Ilk. — Iloko, Ilt. — Ilongot, Ivt. — Ivatan, Jav. — Javanese, Mak. — Makassar, Mal. — Malay, Mar. — Maranao, Mgd. — Magindanao, Mlg. — Malagasy, Mnj. — Maanjan, Nbl. — Nabaloi, NgD. — Ngadju-Dayak, PNeg. — Pinatubo-Negrito, Pmp. — Pampangan, Png. — Pangasinan, Saa. — Sa'a, Sam. — Samoa, Sam-Ley. — Samar-Leyte, Seb. — Sebu, Sbl. — Sambales, Sund. — Sundanese, Tag. — Tagalog, Tao. — Taosug, Tnt. — Tontemboan, ToB. — Toba-Batak, Ton. — Tonga.

AN		Austronesian
AW		<i>Austronesisches Woerterverzeichnis</i>
C		Consonant
IA		<i>Induktiver Aufbau einer Indonesischen Sprache</i>
IN		Indonesian
N		Nasal
PAN		Proto-Austronesian
PIN		Proto-Indonesian
V		Vowel
VLAW	...	<i>Vergleichende Lautlehre des Austronesischen Wortschatzes</i>

The spelling of the starred forms in the Appendix, which come from Dempwolff's III: *Austronesischen Woerterverzeichnis*, uses Dyen's symbols. Also certain liberties were taken in the spelling of the reflexes in the daughter languages for the purpose of this paper. For instance, Dempwolff's symbols for the spiritus asper and spiritus lenis, the breve, the line under certain V's, and the inverse breve under z in Fij. are dropped, and *ng* replaces the velar nasal symbol. His vertical line is replaced by the hyphen, which in the daughter languages also separates affixes from stems, compounds and reduplicated stems.

In the Philippine languages —C¹C¹— in Ibg., Ilk., and Tao., represents geminate C¹, and —V¹V¹— in Tao. a long V¹. *ts* is unvoiced affricate in Btk., Ivt., Nbl., and Tao.; *l* in Akl. is dorso-palatal lateral;