

A PRELIMINARY ANALYSIS OF THE LAMINAL LATERAL IN PAMA-NYUNGAN LANGUAGES

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1. INTRODUCTION¹

Geoff O'Grady was one of my first linguistics professors, and his love for Australian Aboriginal languages was evident even in an introductory phonology course. His unending enthusiasm for historical linguistics, and in particular for Australian comparative work, has led me to do my graduate work in this field. As my supervisor, he has given me a great deal of support, and has freely shared his incredible knowledge of Pama-Nyungan languages with me. Although he has now retired from teaching, may he never retire from research! I look forward to many more years of working with and learning from him.

According to Dixon (1970:85), the inventory of laterals in Proto Australian (or, in terms of this study, Proto Pama-Nyungan) is one of "the most important open questions" in the study of the history of the Australian languages. The fact that most languages in the east do not have a laminal lateral while those in the west do, raises the question of whether Proto Pama-Nyungan (PPN) had a laminal lateral. Dixon (1980:157) guesses that there was a laminal lateral in the protolanguage, and he hypothesises that medial **-ly-* became *-j-* or *-l-* between vowels and *-ny-* or *-l-* before consonants.² Further, O'Grady, Hendrie (1990), Fitzgerald (1991) and Chen (1992) have all used **-ly-* in their reconstructions, but no rigorous study of this issue has yet been done. This paper, in which I compare 11 languages which have a laminal lateral with 10 languages which do not, is the first step in such a study. It is not meant to present an exhaustive list of all cognate sets involving medial *-ly-*, nor does it provide firm conclusions concerning the presence or absence of the laminal lateral in PPN. Rather, it is an attempt to determine major sound correspondences for *-ly-*, as a basis for further study.

In order to show that PPN either had or did not have a laminal lateral, it is necessary to undertake a two-stage comparison between those languages which have a laminal lateral and those which do not. Firstly, we should search for likely cognates for forms with *-ly-*. If we find that they consistently have, for example, *-j-* in Dyirbal and *-l-* in Nyawagi, then we have firm evidence that PPN did indeed include **ly-* in its inventory, and that *-j-* and *-l-* are the Dyirbal and Nyawagi reflexes, respectively. However, we should not stop there. It is also necessary to search for cognates for all Dyirbal forms with medial *-j-* and all Nyawagi forms with medial *-l-* in the languages with a laminal lateral. There are two possible outcomes of this search. If Dyirbal *-j-*, for example, consistently corresponds to both *-j-* and *-ly-* in

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² See Dixon (1970) and Evans (1988) for analyses of other laminal consonants.

Ngarla, then we can safely assume that PPN had a laminal lateral. If, on the other hand, there are no cognate pairs in which both Dyirbal and Ngarla have *-j-*, then Ngarla *-ly-* could be a reflex of PPN **-j-*, indicating that PPN did not have a laminal lateral.

Although we work under the hypothesis that sound change is regular, we are unlikely to find exceptionless sound correspondences in the early stages of comparison, as we have only a vague idea of the sound changes which may have occurred. Before we can confidently posit regular correspondences, we must collect a number of putative cognate sets. These will necessarily show irregular correspondences, since, according to Anttila (1972:335–336), “in the beginning everything is very provisional, because borrowings, analogical creations, conditioning environments, and so on, can be detected gradually”. For this reason, Anttila proposes two types of sound correspondences. *True correspondences* are those which are regular in a specified environment, while *matchings* are tentative correspondences. Matchings are found in more than one putative cognate set, but the environment in which they occur may not be clear. Only after we have determined matchings for a given language can we begin to untangle the web of borrowings and obscured environments in order to arrive at the true correspondences.

2. EVIDENCE FOR MATCHINGS

The purpose of this paper is to find matchings for medial *-ly-* in the following 10 languages, all of which lack a laminal lateral: Bidyara-Gungabula, Dyirbal, Gidabal, Guguyalanji, Gumbaynggir, Guugu Yimidhirr, Nyawaygi, Wembawemba, Yidiny and Yuwaalaraay. Forms with *-ly-* are taken from Baagandji, Diyari, Mudburra, Ngarla, Ngarluma, Nyungar, Proto Kanyara, Proto Kanyara-Mantharta, Proto Mantharta, Proto Ngayarda and Watjarri.³ Starting with forms with *-ly-*, I searched for cognates in the data of the languages without a laminal lateral, paying special attention to forms with medial *-j-*, *-l-*, *-y-* and *-ny-*. Initially, I recorded any cognate set that looked remotely plausible; I later sifted through these and discarded many sets, keeping only those which appeared to be the most highly plausible. The resulting 87 cognate sets form the basis for the observations given below. The full cognate sets are presented in §4. Some of these have been presented in other works; appropriate references are given with the full sets.

In the following sections, I deal in turn with each of the languages not having a laminal lateral; I present putative cognate pairs which include a form from a language with a laminal lateral and one from the language in question, and I discuss possible matchings.⁴ Although I have attempted to include only highly plausible ‘cognates’, some of these will eventually be rejected as further research reveals true correspondences, both for medial *-ly-* and for other phonemes. For ease of reference, the number of the full cognate set to which a given pair belongs is indicated after the pair.

2.1 BIDYARA-GUNGABULA

The following 13 putative cognate pairs indicate a matching between intervocalic *-ly-* and BGU *-j-*:

³ For abbreviations and sources used in this paper see Appendix.

⁴ For ease of comparison, orthographies have been converted to the ‘ptk’ system.

- (1) a. NGL *jilya* 'child' : BGU *jijipa* ~ *jijipara* 'son' (44)
- b. BAA *kalhila* 'sick' : BGU *kaja* 'rotten' (54)
- c. NGL *kalya* 'remaining in one place, continuing in a state or process, still' : BGU *kajuna-* 'to lie (of water)' (51)
- d. BAA *kalya-* 'to run' : BGU *waja-* 'to go, to come, to walk' (52)
- e. NMA *kulhakulhara* 'grub-like animal in sea...' : BGU *ngunthany* 'shrimp' (60)
- f. NMA *kulhanga-lku* '1. to hit him with a stone, 2. to pound up' : BGU *kuja-* 'to hit by throwing' (61)
- g. PK **kulhuwi* 'red' : BGU *kuthikuthi* 'red,' *kuthirri* 'red or yellow' (67)
- h. NGL *kulyu* 'plenty' : BGU *kuthu* 'a lot' (62)
- i. NYU *kulumij* 'in pretence, deceitfully' : BGU *kuntha-* 'to steal' (65)
- j. NGL *malya* '1. father, 2. father's younger brother' : BGU *manthi* 'uncle' (69)
- k. PKM **ngulha* 'nothing' : BGU *kuju* ~ *kujukuju* 'short' (85)
- l. PM **walhi* 'bad' : BGU *wanju* 'bad, no good' (102)
- m. PKM **yalha* 'ground, sand' : BGU *nhanthi* 'ground, dirt' (109)

The BGU forms in (1d) and (1e) show initial weakening, as do the PKM forms in (1k) and (1m). The details of any such changes must of course be worked out before we can be completely confident of these cognate pairs; however, determining whether these are regular sound correspondences is beyond the scope of this paper. The BGU forms in (1e) and (1i)–(1l) have a prenasalised laminal stop. The irregularities of prenasalisation are discussed in O'Grady (1990c).

The following two examples show BGU *-l-* and *-y-* corresponding to *-ly-*:

- (2) a. NGL *yalyuru* 'tongue' : BGU *thalany* 'tongue, first trickle of flowing water' (112)
- b. PM **puulya-ru* 'to blow' : BGU *puyu* 'breath' (100)

Although neither *-l-* nor *-y-* can be classified as BGU matchings because they each occur only once, the above forms appear to be parts of much larger cognate sets, as can be seen in section 4. It is therefore important to keep track of them.

Finally, I have two examples of prenasantal *-ly-*:

- (3) a. NYU *kalykat* 'cheeks, side of face' : BGU *ngalki* 'cheek' (57)
- b. PK **puulypa-L* 'to blow' : BGU *pulpu-* 'to blow' (101)

These indicate that *-l-* is a BGU matching for prenasantal *-ly-*.

2.2 DYIRBAL

As with BGU, the major DYI matching for *-ly-* is plain or prenasalised *-j-*, as the following nine cognate pairs show:

- (4) a. PNG **jalya* 'rubbish' : DYI *jaja* 'baby' (40)
- b. MDB *jalya* 'today, just now' : DYI *janyja* 'now' (41)

- c. NMA *julyungarli* ‘“old people”, ancestors’ : DYI *jujapa* ‘the first man (creator of animate and physical phenomena); the time of the creator’ (49)
- d. NGL *kalyu* ‘a call’ : DYI *ngajan* ‘a language’ (59)
- e. WJI *milyu* ‘bark lizard, skink’ : DYI *pinyjiriny* ‘small lizard’ (81)
- f. PK **palharta* ‘blue-tongue lizard’ : DYI *pajirri* ‘water guana’ (91)
- g. PNG **pilya* ‘vagina, clitoris’ : DYI *pijama-l* ‘swive (have sexual intercourse with)’ (93)
- h. NGL *walyi ma-n* ‘Lose it!’ : DYI *ngaji-l* ‘lose, take absolutely no notice of, ignore’ (106)
- i. NGL *wilyuru* ‘not wanting something’ : DYI *miju-l* ‘take no notice of’ (108)

The relationship between negative meanings and ‘child’ exemplified in (4a) is discussed in detail in Evans (1990). The putative weakening of initial consonants in DYI (seen in (4d)) and in the languages with a laminal lateral (seen in (4e), (4h) and (4i)) must also be accounted for.

Again, as in BGU, the proposed cognate for PM **puulya-ru* contains a medial *-y-*, which cannot be classified as a matching:

- (5) PM **puulya-ru* ‘to blow’ : DYI *puya-l* ‘blow, puff’ (100)

The *-y-* may be the result of intervocalic weakening in DYI, or the form may be a borrowing.

The following two pairs involve preconsonantal *-ly-*:

- (6) a. PK **puulypa-L* ‘to blow’ : DYI *pulwa-l* ‘expel breath in big gasps’ (101)
 b. BAA *waly-mala-* ‘to dangle, to hang free’ : DYI *walma-y* ‘arise, get up,’ *walmpi-l* ‘raise, lift, wake up’ (105)

The DYI form in (6a) shows weakening of the medial stop; more examples are necessary in order to determine if this is a regular occurrence. The status of the *-m* in (6b) is not clear. The putative GID cognate for BAA *waly-mala-* also contains a bilabial (as seen in (11b)), so perhaps *-ma* has been reanalysed as part of the suffix in BAA. The above forms indicate that DYI *-l-* is a matching for preconsonantal *-ly-*.

2.3 GIDABAL

Unlike BGU and DYI, GID appears to have more than one matching for intervocalic *-ly-*. Firstly, the following eight pairs show a matching between *-ly-* and GID *-l-*:

- (7) a. NMA *kalhu-ku* ‘to call out to’ : GID *ngalawa-* ‘to search, to hunt, to ask,’ *ngalawa-y* ‘question’ (59)
 b. PK **kulhiny* ‘maggot’ : GID *kulany* ‘tick’ (60)
 c. NGL *kulyu* ‘plenty’ : GID *kulumu* ‘everywhere, all around here’ (62)
 d. NGL *malya ja-n* ‘Soak it!’ : GID *palun* ‘river, creek’ (70)
 e. PM **pulhu* ‘short’ : GID *mul* ‘short’ (99)
 f. BAA *walya* ‘bottom, behind’ : GID *pale* ‘beneath, lower surface’ (103)

- g. NGL *walyi ma-n* ‘Lose it!’ : GID *walany* ‘disappearance’ (106)
 h. NGL *yalyuru* ‘tongue’ : GID *yalany* ‘tongue’ (112)

The semantic association between ‘wash’ and ‘water’ seen in (7d) is well attested; for example, PPN **ngApu* has the reflexes *ngapa* ‘water, water source, rain’ in Warlpiri and *ngapa-n* ‘bathe’ in YDN (Fitzgerald 1991:81). Note that in GID, the putative cognate for NGL *yalyuru* contains a consonant which is a matching for *-ly-*, whereas in BGU it did not.

Secondly, three pairs indicate a matching between *-ly-* and plain or prenasalised *-j-*:

- (8) a. PNG **jalya* ‘rubbish’ : GID *jajarr* ‘playful, playing the fool’ (40)
 b. PKM **malha-L* ‘to crush’ : GID *panyji-* ‘to tap, to hammer’ (71)
 c. PK **palharta* ‘blue-tongue lizard’ : GID *waanjiil* ‘1. species of lizard..., 2. swagman’ (91)

The relationship between ‘rubbish’ and ‘playful’ seen in (8a) could perhaps be mediated by way of ‘child’.

Finally, the four pairs below indicate that GID *-y-* is also a matching for intervocalic *-ly-*:

- (9) a. NYU *kulumij* ‘in pretence, deceitfully’ : GID *wuyurr* ‘thief’ (65)
 b. NYU *ngulya* ‘brother-in-law’ : GID *wuyang* ‘male ego’s brother-in-law’ (86)
 c. WJI *pulyaman* ‘doctor, sorcerer’ : GID *wuyan* ~ *wiyan* ‘clever (in supernatural matters)’, *wuyan-kali* ‘clever-man, doctor’ (98)
 d. NGL *walyirr* ‘rapidly, speedily’ : GID *wayaa-* ‘to fly’ (52)

All of the above sets are plausible, and they point to three matchings. It is not yet possible to state specific environments in which each matching occurs, as all three appear both before and after *a*. The major GID matching for intervocalic *-ly-* appears to be *-l-*, but the evidence for *-j-* and *-y-* cannot be ignored.

As for preconsonantal *-ly-*, the data can be divided into two groups. When *-ly-* occurs before a laminal stop, the putative GID cognate has just *-l-*, as seen in (10):

- (10) a. DIY *kalhthi* ‘spear’ : GID *kalan* ‘sharp’ (56)
 b. MDB *malyju* ‘male (of person, horse)’ : GID *palukaan* ‘one kind of male spirit-being; handsome’ (77)

When *-ly-* precedes a non-laminal stop, however, the evidence is inconclusive:

- (11) a. NGL *pilyka* ‘a crack’ : GID *pilkuruung* ‘thin straight stick used to pin together the edges of the slit made in order to gut an animal, prior to cooking’ (94)
 b. BAA *waly-mala-* ‘to dangle, to hang free’ : GID *walpa-* ‘to hang, to suspend’ (105)
 c. PK **walyparta* ‘lightning’ : GID *wayparr* ‘fire; camp; firewood; matches’ (107)

Of these three pairs, (11b) and (11c) seem to be the most plausible, and they both have a preceding and following the medial cluster. Yet in (11b) GID has an *-l-* preceding the stop, while in (11c) it has a *-y-*. As there are two examples with *-l-*, it can be considered a matching.

2.4 GUGU-YALANJI

A large number of cognate pairs point to a matching between a plain or prenasalised stop in GYA and *-ly-* in those languages which have a laminal lateral:

- (12) a. PNG **jalya* 'rubbish' : GYA *janjarr-janjarr* 'nuisance, cheeky, troublemaker' (40)
 b. NGL *jilya* 'child' : GYA *jija* 'grandchild (one's son's children)' (44)
 c. BAA *kalhila* 'sick' : GYA *nganjay* '1. no good, wilted, 2. bad smell' (54)
 d. NGL *kalya* 'remaining in one place, continuing in a state or process, still' : GYA *wanji-l* 'desire to accompany, but unable to' (51)
 e. NGL *kalyu* 'a call' : GYA *nganja* '1. taste, 2. voice of one's spirit left behind' (59)
 f. PK **kulhuwi* 'red' : GYA *kunjin* 'fire' (67)
 g. NYU *kulumij* 'in pretence, deceitfully' : GYA *nguju* 'fun' (65)
 h. MDB *kulyurr* 'head cold,' *kulyurk* 'cough' : GYA *kunji* 'sneeze (n.)' (66)
 i. NMA *malhil* 'tired, lazy, dragging' : GYA *majarr* 'lazy, no good for hunting or working' (75)
 j. PK **malyarra-Y* 'to be sick' : GYA *pajaypajay* 'painful' (72)
 k. PNG **milya(-L)-* 'lick, drink' : GYA *pija-l* 'to lick' (80)
 l. WJI *milyurra* 'venomous snake' : GYA *pinju* 'small black snake, light or reddish belly, poisonous' (79)
 m. PKM **mulha* 'nose' : GYA *pujil* '1. nose, 2. point of land which juts out into the sea, 3. mouth of river' (82)
 n. BAA *ngulya-* 'to wash' : GYA *kunjirr* 'cleansed from a dead person's spirit' (87)
 o. PK **palharta* 'blue-tongue lizard' : GYA *pajapaja* 'blue-tongue lizard' (91)
 p. NMA *palya* 'thin, skinny' : GYA *pajipay* 'bone' (89)
 q. PKM **pilhi* 'buttocks' : GYA *piji* 'tail,' *pijakan* 'stern of boat' (93)
 r. PM **puulya-ru* 'to blow' : GYA *punjurri-l* 'to blow (trv)' (100)
 s. PM **walhangu* 'youth' : GYA *wanji-paka* 'overactive children' (104)

The association between 'fire' and 'red' found in (12f) is also attested in GYA *ngalku* 'bushfire' and BAA *ngalkina ~ ngalkirka* 'red' (Fitzgerald 1991:64). That between 'bone' and 'skinny' (12p) is seen in YUW *puya* 'bone' and *puyapuya* 'thin, bony'. Note that in (12r), GYA has a stop corresponding to *-ly-*, rather than the glide seen in the putative BGU and DYI cognates.

The following two pairs point to a further matching between intervocalic *-ly-* and GYA *-lj-*:

- (13) a. NGL *julya* 'buried in the ground' : GYA *juljal* 'a grave' (47)
 b. PKM **ngulha* 'nothing' : GYA *wulji-l* 'to empty out, bail out' (85)

Wadjuk⁵ has the form *NGUL-YAP* 'empty', which is almost certainly cognate with PKM **ngulha*, so the association between 'nothing' and 'to empty' is highly possible. The fact that GYA *-lj-* occurs after *u* in both of the above forms is probably coincidental; since GYA *-j-* and *-nj-* also appear following *u* in several of the forms in (12), the presence of *u* cannot be taken to be a conditioning environment.

A third GYA matching, *-l-*, is indicated by the following two pairs:

- (14) a. NGL *kulyu* 'plenty' : GYA *kulur* 'three' (62)
 b. BAA *walya* 'bottom, behind' : GYA *wali* 'downwards' (103)

Again, no specific environment can be determined for this matching.

Finally, the pair seen below shows GYA *-y-* possibly corresponding to *-ly-*:

- (15) NGL *kulya* 'bait (n.)' : GYA *kuyalin* 'small conical shellfish, used for bait' (60)

Although this is a plausible cognate pair, *-y-* cannot be classified as a GYA matching, as it occurs only once. It is, however, worthwhile to keep track of this pair, in case further evidence for a *-y-* matching is found.

The following three pairs illustrate a laminal lateral preceding a laminal stop:

- (16) a. DIY *kalhthi* 'spear' : GYA *kayi-l* '1. to hook with a hook spear, 2. to charm, to fascinate' (56)
 b. MDB *kalyja* 'shallow' : GYA *ngajal* 'low tide' (55)
 c. BAA *yalhtha* 'I don't know' : GYA *nyaji-l* 'to perceive, to hear, to see' (110)

Regarding the semantic association seen in (16c), note that Gawurna contains the form *YAILTYANDI* 'to believe; think; suppose', which is cognate with BAA *yalhtha*. Although GYA *-j-* can be taken as a matching for *-lyj-*, *-y-* cannot, as it occurs in only one example.

The four putative cognate pairs in (17) all indicate that GYA *-l-* is a matching for *-ly-* when it occurs before a non-laminal consonant:

- (17) a. PK **pilykuru* 'fish' : GYA *milkaji* 'small mullet' (95)
 b. PK **puulypa-L* 'to blow' : GYA *wulmparri-l* 'to blow' (101)
 c. PK **walyparta* 'lightning' : GYA *palpay* 'lightning' (107)
 d. WJI *yalypa* 'many, all, much' : GYA *yalpay* 'big' (111)

I have found no other matchings in this environment. However, it would be desirable to have more than four examples before classifying GYA *-l-* as a true correspondence.

2.5 GUMBAYNGGIR

GUM also has more than one matching for intervocalic *-ly-*. The following 11 pairs of cognates suggest that its major matching is *-l-*:

⁵ Wadjuk (and Gawurna) data are given in upper-case letters to remind the reader that they were recorded before the development of standard transcription systems.

- (18) a. PNG **jalya* ‘rubbish’ : GUM *jalikam* ‘short, small’ (40)
 b. DIY *thilhinga-* ‘boil (v.)’ : GUM *yiila-* ‘cook’ (45)
 c. NGL *julya* ‘buried in the ground’ : GUM *julaarr* ‘dirt(y), ashes, dust, earth’ (47)
 d. BAA *kuulyi* ~ *kuulyi-kuulyi* ~ *kuulyurru* ‘winter, cold season’ : GUM *kuluun* ‘rain’ (68)
 e. NGL *malya* ‘1. father, 2. father’s younger brother’ : GUM *paali* ‘father (rarely used)’ (69)
 f. NGL *malyarnu* ‘slowly, steadily’ : GUM *palama* ‘slowly’ (73)
 g. DIY *ngalha* ‘cheek’ : GUM *ngaala* ‘side’ (84)
 h. BAA *ngulya-* ‘to wash’ : GUM *wuluuki-* ‘bathe, bogey’ (87)
 i. PM **walhi* ‘bad’ : GUM *waali-* ‘die’ (102)
 j. BAA *walya* ‘bottom, behind’ : GUM *waala* ‘behind, back of’ (103)
 k. NGL *yalyuru* ‘tongue’ : GUM *jalaany* ‘mouth’ (112)

Recall that the DIY cognate for PNG **jalya* has the meaning ‘baby’. Since ‘baby’ and ‘small’ can be related, as in NYW *janyji* ‘small; baby’, the semantic association seen in (18a) is sound. As for that between ‘winter’ and ‘rain’ in (18d), the Gawurna form *KUDLILLA* ‘rainy season; winter’, which includes both meanings, is also a member of this putative cognate set. ‘Tongue’ and ‘mouth’, seen in (18k) can be related through metonymy.

The five pairs in (19) suggest a second GUM matching:

- (19) a. NMA *kalhu-ku* ‘to call out to’ : GUM *kayi-* ‘speak, talk’ (59)
 b. NGL *kalya* ‘remaining in one place, continuing in a state or process, still’ : GUM *ngayingki-* ‘sit, stay, live’ (51)
 c. NYU *ngulya* ‘brother-in-law’ : GUM *kuyu* ‘brother’ (86)
 d. PM **puulya-ru* ‘to blow’ : GUM *muya* ‘breath’ (100)
 e. NGL *wilyuru* ‘not wanting something’ : GUM *piyakay* ‘not’ (108)

Since both *-l-* and *-y-* are found before and after all three vowels, specific environments for these GUM matchings cannot yet be established.

A third GUM matching for intervocalic *-ly-* is seen in the following three sets:

- (20) a. NGL *jilya* ‘child’ : GUM *jijaa* ‘sister’ (44)
 b. NGL *kulyu* ‘plenty’ : GUM *kujaarr* ‘completely, till finished’ (62)
 c. NMA *palharra* ‘green, green grass...’ : GUM *wajaarr* ‘grass, ground, country’ (90)

This matching also occurs following each of the three vowels, although my data suggest that it precedes only *a*. This is very likely a coincidence of the data, and as both *-l-* and *-y-* can precede *a*, we again have no specific environment for the presence of *-j-*.

The following is the only pair involving preconsonantal *-ly-*:

- (21) BAA *kalypu* ‘by and by, later on’ : GUM *kaywara* ‘earlier today’ (58)

Although these are apparently plausible cognates, the weakening of *-p-* and the change in meaning must be accounted for. More evidence is needed before *-y-* can be classified as the GUM matching for prenasantal *-ly-*.

2.6 GUUGU YIMIDHIRR

Like BGU, DYI and GYA, YIM appears to have a plain or prenasalised laminal stop as its major matching for intervocalic *-ly-*. Evidence for this is provided by the following 12 pairs:

- (22) a. MDB *jaly* ‘wet (as of ground)’ : YIM *janyji-l* ‘bathe’ (39)
 b. BAA *kalhila* ‘sick’ : YIM *katha* ‘rotten’, *katha-warra* ‘unconscious’ (54)
 c. NGL *kulyu* ‘plenty’ : YIM *kuthiira* ‘two’ (62)
 d. NYU *kulumij* ‘in pretence, deceitfully’ : YIM *nguthu* ‘game, play’ (65)
 e. PKM **mulha* ‘nose’ : YIM *puthiil* ‘nose’ (82)
 f. PKM **ngulha* ‘nothing’ : YIM *wunhtha* ‘empty’ (85)
 g. NMA *palya* ‘thin, skinny’ : YIM *pathipay* ‘bone’ (89)
 h. MDB *pilyak* ‘hot, burnt’ : YIM *minhthil* ‘hot’ (92)
 i. PK **pilyarr* ‘baby’ : YIM *pitha* ‘small’ (96)
 j. PM **puulya-ru* ‘to blow’ : YIM *wunyju-rr* ‘blow on, blow away’ (100)
 k. PM **walhi* ‘bad’ : YIM *wathi* ‘wounded’ (102)
 l. PK **yalhuru* ‘flame’ : YIM *yaaji-l* ‘burn’ (112)

An association between ‘lie’ and ‘play’, seen in (22d), is well attested, as in GID *ngaarri-* ‘to play’ and Wadjuk *NGERA* ‘to lie’ (Fitzgerald 1991:103).

In the following pairs, we again find seemingly likely cognates with correspondences which are not matchings:

- (23) a. NMA *julyungarli* ‘“old people”, ancestors’ : YIM *thuyu* ‘dead’ (49)
 b. PKM **malha-L* ‘to crush’ : YIM *payja-rr* ‘cover, crush’ (71)

It is conceivable that **thuyu* is the result of metathesis, with **juthu* > **yuthu* through initial weakening, and **yuthu* > *thuyu*. Alternatively, it may be a case of intervocalic weakening of *-j-* to *-y-*. In any case, neither *-y-* nor *-yj-* can be considered to be YIM matchings. Further research may reveal more examples.

I have found only one putative cognate pair involving prenasantal *-ly-*:

- (24) DIY *kalhthi* ‘spear’ : YIM *kayii-l* ‘hook, snare’ (56)

Again, more data are needed before the YIM matchings for prenasantal *-ly-* can be established.

2.7 NYAWAYGI

NYW has three matchings for intervocalic *-ly-*. The most common one in my data is plain or prenasalised *-j-*, as seen in the following pairs:

- (25) a. PNG **jalya* ‘rubbish’ : NYW *janyji* ‘small; baby’ (40)
 b. NGL *kalya* ‘remaining in one place, continuing in a state or process, still’ : NYW *ngajil* ‘(sitting) still’ (51)
 c. NGL *kalyu* ‘a call’ : NYW *waja* ‘language’, *waja-mpi-Ø* ‘talk’ (59)
 d. WJI *kulyu* ‘native sweet potato’ : NYW *kujam* ‘yam’ (63)
 e. NGL *malyaja-n* ‘Soak it!’ : NYW *wajiri-L* ‘spill, pour, chuck out (water)’ (70)
 f. BAA *ngulya-* ‘to wash’ : NYW *nguja ~ ngujanguja* ‘wet’ (87)
 g. PM **pulhu* ‘short’ : NYW *puju* ‘blunt’ (99)

I have no further attestation for the association between ‘short’ and ‘blunt’ suggested by (25g). Although a relationship between these concepts is plausible, more evidence for it would be desirable.

Five cognate pairs show a matching between *-ly-* and NYW *-l-*:

- (26) a. WJI *julyara* ‘afternoon; in the afternoon’ : NYW *jula* ‘hot sun (e.g. at midday)’ (48)
 b. NMA *kulhanga-lku* ‘1. to hit him with a stone, 2. to pound up’ : NYW *ngulan* ‘stone tomahawk’ (61)
 c. PNG **mulha* ‘nose, face’ : NYW *mulin* ‘lip’ (82)
 d. PM **walhangu* ‘youth’ : NYW *walumurrku* ‘baby’ (104)
 e. NGL *yalyuru* ‘tongue’ : NYW *jalany* ‘tongue’ (112)

Both *-j-* and *-l-* are found following *a* and *u*, and preceding *i*, *a* and *u*, so we cannot yet posit the conditioning environments for each matching.

The final NYW matching is *-y-*, as shown in (27):

- (27) a. PNG **milhura* ‘snake’ : NYW *piyajala* ‘dark-coloured water snake’ (79)
 b. PM **puulya-ru* ‘to blow’ : NYW *puya-L* ‘blow’ (100)
 c. NGL *walyirr* ‘rapidly, speedily’ : NYW *wayin-pi-Ø* ‘move quickly’ (52)
 d. NGL *wilyuru* ‘not wanting something’ : NYW *piyay ~ piya* ‘not’, *piyayngkul* ‘no, no more, nothing’ (108)

Again, this matching occurs in environments similar to those for *-j-* and *-l-*.

My data contain a single example of prenasalised *-ly-*:

- (28) DIY *kalhthi* ‘spear (n.)’ : NYW *kanyjapa-L* ‘spear (using woomera)’ (56)

It is not clear whether prenasalised *-j-* corresponds to the entire laminal cluster, or whether *-ny-* corresponds to the laminal lateral. More examples of this type are obviously needed.

2.8 WEMBAYWEMBA

The evidence regarding WEM matchings for intervocalic *-ly-* is inconclusive, as my data show two matchings, one having eight examples and the other having seven. Firstly, the following pairs indicate a matching between *-ly-* and WEM *-l-*:

- (29) a. MDB *jalya* 'today, just now' : WEM *jelik-jelik* 'yesterday' (41)
 b. WJI *jalyanyara* 'robin redbreast (probably *Petroica goodenovii*)' : WEM *jali-kurrkuk* 'red-capped robin (*Petroica goodenovii*)' (42)
 c. DIY *thilthirri* 'centipede' : WEM *jilung* 'centipede' (46)
 d. NGL *kulyu* 'plenty' : WEM *kuli* 'crowd, mob' (62)
 e. NYU *kulumij* 'in pretence, deceitfully' : WEM *kulingulang* 'a sly person' (65)
 f. DIY *malayuda* 'cormorant' : WEM *walawalak* 'little black cormorant, *Phalacrocorax ater*' (78)
 g. BAA *ngulya-* 'to wash' : WEM *kulaia-* 'to be wet' (87)
 h. NGL *yalyuru* 'tongue' : WEM *jalingin* 'your tongue', *jalinjuk* "'its tongue", i.e. a flame' (112)

Secondly, there appears to be a matching between *-ly-* and a laminal stop, as seen below:

- (30) a. PNG **jalya* 'rubbish' : WEM *yathangka* 'to be bad' (40)
 b. BAA *kalhila* 'sick' : WEM *kajina* 'to be unable' (54)
 c. PKM **kalya* 'armpit' : WEM *kathap* 'armpit' (50)
 d. MDB *pilyak* 'hot, burnt' : WEM *pijaka* 'to warm oneself', *yotayota-pija* 'fire' (92)
 e. PK **pilyarr* 'baby' : WEM *witheyuk* 'small, little' (96)
 f. PM **walhangu* 'youth' : WEM *wathip* 'son' (104)
 g. PM **walhi* 'bad' : WEM *wathənjən* 'dead' (102)

Both matchings occur before and after *i* and *a*. Only *-l-* occurs adjacent to *-u-*, but more data is necessary in order to determine if this is significant.

The following two pairs illustrate possible WEM matchings for prenasantal *-ly-*:

- (31) a. BAA *yalhtha* 'I don't know' : WEM *yalang-yalang* 'idiot, stupid person' (110)
 b. MDB *jalybuk* 'crush' : WEM *jalpana-* 'to drop something' (43)

When the laminal lateral occurs before a laminal stop, WEM has just *-l-* corresponding to the cluster. However, when the second member of the cluster is a non-laminal stop, WEM *-l-* corresponds to *-ly-*. Of course, the above two examples are not sufficient to establish matchings.

2.9 YIDINY

The major YDN matching for intervocalic *-ly-* appears to be plain or prenasalised *-j-*:

- (32) a. PNG **jalya* 'rubbish' : YDN *jaja* 'child' (40)
 b. PKM **kalya* 'armpit' : YDN *kanyjarr* 'armpit' (50)
 c. WJI *kalyartu* 'substitute reference to a deceased person' : YDN *kaja* 'male ghost, white man' (53)

- d. NMA *kulhanga-lku* '1. to hit him with a stone, 2. to pound up' : YDN *kunyji-N* 'break' (61)
- e. WJI *kulyu* 'native sweet potato' : YDN *kunyjankarra* 'beach yam' (63)
- f. BAA *kulyu-kulya-* 'to rake up, to pile up (leaves and branches)' : YDN *kujarra* 'broom' (64)
- g. NYU *kulumij* 'in pretence, deceitfully' : YDN *wunyjay* 'a stolen thing' (65)
- h. PKM **malha-L* 'to crush' : YDN *paji-L* 'bash something on something else' (71)
- i. PKM **ngulha* 'nothing' : YDN *nguju* 'not, never, no' (85)
- j. BAA *ngulya-* 'to wash' : YDN *kujan* 'wet' (87)
- k. NMA *palharra* 'green, green grass' : YDN *paja* 'large grassy plain' (90)
- l. PM **puulya-ru* 'to blow' : YDN *puju+piya-L* 'blow at someone' (100)

This matching occurs before all three vowels and after *u* and *a*.

The following three pairs attest to a matching between YDN *-l-* and *-ly-*:

- (33) a. NMA *kulhakulhara* 'grub-like animal in sea' : YDN *wulur* 'large shrimp...' (60)
- b. MDB *pilyak* 'hot, burnt' : YDN *milirrl* 'pins and needles, fever' (92)
- c. NGL *yilya* 'a green stick' : YDN *jilan* 'small sticks (which may still be attached to a tree), broken in such a way as to show the direction in which someone has gone' (113)

Note that *-l-* occurs after *i*, while *-j-* does not. If (33a), which shows *-l-* following *u*, were eliminated as a putative cognate pair, then we could hypothesise that in YDN *-l-* corresponds to intervocalic *-ly-* after *i*, and plain or prenasalised *-j-* corresponds to intervocalic *-ly-* elsewhere. Both matchings could thus be classified as true correspondences. However, we should first obtain additional (and more highly plausible) examples of the *-l-* matching before taking such a step.

Before consonants, both *-l-* and *-y-* correspond to *-ly-*:

- (34) a. PK **pilykuru* 'fish' : YDN *pilkir* 'small catfish' (95)
- b. PK **puulypa-L* 'to blow' : YDN *puypu-R* 'blow at, fan' (101)

Neither can be classified as matchings, however, as each occurs only once. It would be interesting to see if further examples show *-l-* after *i* and *-y-* elsewhere.

2.10 YUWAALARAAY

My data contain the following nine examples of YUW *-l-* corresponding to intervocalic *-ly-*:

- (35) a. DIY *thilhinga-* 'boil (v.)' : YUW *yilama-l* 'cook' (45)
- b. NGL *kulyu* 'plenty' : YUW *kulipaa* 'three' (62)
- c. NYU *malyern* 'star, stars' : YUW *maliyankaalay* 'morning stars' (74)
- d. NGL *malyarnu* 'slowly, steadily' : YUW *paluwaa* 'slow' (73)

- e. PK **palharta* 'blue-tongue lizard' : YUW *waluupaal* 'sleepy lizard' (91)
- f. PM **puulya-ru* 'to blow' : YUW *pulirrul* 'breath', *pulirru-l* 'breathe' (100)
- g. BAA *walya* 'not, don't' : YUW *waal* 'no, don't' (102)
- h. NLA *yalyuru* 'tongue' : YUW *thalay* 'tongue' (112)
- i. MDB *yilyil* 'hang' : YUW *yilaa-l* 'tie up' (114)

YUW *-l-* occurs both before and after all three vowels.

Six examples in which *-ly-* and YUW *-y-* correspond are also found in my data:

- (36) a. NGL *kalyu* 'a call' : YUW *kaay* 'word, message', YUW *kaya-l* 'answer', YUW *kaya* 'language' (59)
- b. PKM **malha-L* 'to crush' : YUW *mayu-ʔ* 'tread on' (71)
- c. PKM **mulha* 'nose' : YUW *muyu* 'nose' (82)
- d. MDB *mulyukuna* 'black-headed python' : YUW *wuyupuluuy* 'black snake' (83)
- e. NYU *ngulya* 'brother-in-law' : YUW *kuyintaay* 'brother-in-law' (86)
- f. NGL *pulyamarra* 'calf of leg' : YUW *puyu* 'leg' (97)

Although *-y-* occurs before all three vowels, I have no examples of it following *i*.

A third YUW matching for *-ly-* is a laminal stop:

- (37) a. BAA *kalhila* 'sick' : YUW *katharrkatharr* 'ragged' (54)
- b. PK **palha* 'brother' : YUW *pathuulngaa* 'mother-in-law's brother' (88)
- c. NMA *palya* 'thin, skinny' : YUW *pajin* 'small' (89)
- d. NGL *yilyurrma-n* 'Lick it!' : YUW *thijja-l* 'lick' (115)

This matching can also precede all three vowels, but it does not occur after *u*. Although there are some differences in the distributions of the three matchings, it is not possible to specify an environment for each.

The following is an example of a laminal lateral preceding a laminal stop:

- (38) DIY *malhthi* 'cool' : YUW *paliyaa* 'cold' (76)

In this case, YUW *-l-* corresponds to the entire cluster. However, more data are needed in order to determine YUW matchings for preconsonantal *-ly-*.

3. SUMMARY AND CONCLUSIONS

Although it is not yet possible to establish whether or not PPN had a laminal lateral, we can make several observations based on the data presented here. The following table summarises the matchings in three environments for each language. If a language has more than one matching, the most common one is given first. A hyphen indicates that no matching was found in that environment.

TABLE: MATCHINGS FOR *-ly-*

	V__V	<i>lyj</i>	__C
BGU	<i>j</i>	-	-
DYI	<i>j</i>	-	<i>l</i>
GID	<i>l, j, y</i>	<i>l</i>	<i>l</i>
GYA	<i>j, lj, l</i>	<i>j</i>	<i>l</i>
GUM	<i>l, j, y</i>	-	-
YIM	<i>j</i>	-	-
NYW	<i>j, l, y</i>	-	-
WEM	<i>j, l</i>	-	-
YDN	<i>j, l</i>	-	-
YUW	<i>l, j, y</i>	-	-

Of the ten languages in this study, only three (BGU, DYI and YIM) have a single matching for intervocalic *-ly-*, which in all three cases is *-j-*. We can therefore hypothesise that *-j-* is a true correspondence for these languages, pending further study. Every language has *-j-* as at least a minor matching, and *-y-* is never a major matching. It may be the case that *-j-* is a common true correspondence for intervocalic *-ly-*. If many languages in an area have *-j-* as their true correspondence, then it is likely that it will, through borrowing, appear as a minor matching in neighbouring languages with a different true correspondence. If *-y-* is a less common true correspondence, then it is less likely that a language with, say, *-l-* as its true correspondence will borrow enough forms with *-y-* for it to be classified as a minor matching. This could account for the fact that only four of the languages in this study have *-y-* as a minor matching.

My data suggest that *-ly-* preceding a laminal stop has a different matching than *-ly-* preceding a non-laminal. As the second column in the table shows, when the laminal lateral is part of a homorganic cluster, the entire cluster is matched by *-l-* in GID and by *-j-* in GYA. This pattern is also borne out by those languages having only one example in this environment, with the possible exception of NYW (see (24), (28), (31a) and (38)). When the laminal precedes a non-laminal stop, the corresponding cluster retains the non-laminal (although it may be weakened or prenasalised).

Returning to Dixon's guess that, if PPN did have a laminal lateral, it has descended as *-j-* or *-l-* between vowels and as *-ny-* or *-l-* before consonants, there is little indication of a correspondence between *-ny-* and *-ly-* in my data. The only possible case is that seen in (28), in which NYW *-ny-* may correspond to DIY *-lh-* before a laminal stop; this may instead be an example of prenasalisation. However, the absence of *-ny-* in my data is no reason to rule out such a correspondence, as only ten languages are studied here.

Much work needs to be done before we can definitively answer the question of an ancestral laminal lateral. Since both synchronic and diachronic vowel changes can completely obscure the environments in which medial consonants have changed, research into such processes would be extremely helpful. In addition, comparison among the languages which have laminal laterals should be undertaken in order to determine if the instances of laminal laterals seen here can be considered ancestral at least at the group level. Further, forms with *-j-*, *-l-* and *-y-* in languages with and without a laminal lateral should be compared in an attempt to establish or rule out that the presence of a laminal lateral is an innovation. Finally,

instances of borrowing and analogical change need to be identified and eliminated from consideration. Although many researchers consider it likely that PPN did indeed have a laminal lateral, the above work is necessary before we can be certain.

4. ATTESTATION

In this section, I present the 87 putative cognate sets which were used in this study. These should be considered to be tentative, as many of them suggest sound changes which have yet to be verified, such as initial weakening. Future work on such changes may demonstrate that some of the putative cognates presented here are invalid. In addition, forms which are found to be borrowings must be eliminated.

Any form containing a matching is included as a full member of its set. Forms that look promising, but exhibit a correspondence for which there is only one example, are included as 'residue'. Given that this collection of sets is not exhaustive, it is entirely possible that further examples of such correspondences will be found in the future. It is therefore to our advantage to keep track of these forms.

- (39) MDB *jaly* 'wet (as of ground)'; YIM *janyji-l* 'bathe'
- (40) PNG **jalya* 'rubbish'; DYI *jaja* 'baby'; GID *jajarr* 'playful, playing the fool'; GYA *janjarr-janjarr* 'nuisance, cheeky, troublemaker'; GUM *jalikam* 'short, small'; NYW *janyji* 'small; baby'; WEM *yathangka* 'to be bad'; YDN *jaja* 'child' (see also O'Grady (1990a:94–95))
- (41) MDB *jalya* 'today, just now'; DYI *janyja* 'now'; WEM *jelik-jelik* 'yesterday'
- (42) WJI *jalyanyara* 'robin redbreast (probably *Petroica goodenovii*)'; WEM *jali-kurrukuk* 'red-capped robin (*Petroica goodenovii*)'
- (43) MDB *jaly puk* 'crush'; Residue: WEM *jalpana-* 'to drop something'
- (44) NGL *jilya* 'child'; BGU *jijipa* ~ *jijipara* 'son'; GYA *jija* 'grandchild (one's son's children)'; GUM *jijaa* 'sister'
- (45) DIY *thilhinga-* 'boil (v.)'; GUM *yiila-* 'cook'; YUW *yilama-l* 'cook'
- (46) DIY *thilhithirri* 'centipede'; WEM *jilung* 'centipede'
- (47) NGL *julya* 'buried in the ground'; WJI *yulyijana-* 'to burrow (as frogs or goannas)'; GYA *juljal* 'a grave'; GUM *julaarr* 'dirt(y), ashes, dust, earth'
- (48) WJI *julyara* 'afternoon; in the afternoon'; NYW *jula* 'hot sun (e.g. at midday)'
- (49) MDB *Julyukarringamayala* '(?) Dreaming character'; NMA *julyungarli* "'old people", ancestors'; PK **thulhanu* 'old'; PM **julyu* 'old man, grey hair'; PNG **julyu* 'old man'; DYI *ujapa* 'the first man (creator of animate and physical phenomena); the time of the creator'; Residue: YIM *thuyu* 'dead'
- (50) PKM **kalya* 'armpit'; NYU *ngaly* 'axilla, underarm'; WJI *kalya* 'armpit, axilla'; WEM *kathap* 'armpit'; YDN *kanyjarr* 'armpit' (see also O'Grady (1990a:101, 1990d:6))
- (51) NGL *kalya* 'remaining in one place, continuing in a state or process, still'; BGU *kajuna-* 'to lie (of water)'; GYA *wanji-l* 'desire to accompany, but unable to'; GUM *ngayingki-* 'sit, stay, live'; NYW *ngajil* '(sitting) still'

- (52) BAA *kalya*- 'to run'; NGL *walyirr* 'rapidly, speedily'; BGU *waja*- 'to go, to come, to walk'; GID *wayaa*- 'to fly'; NYW *wayin-pi-Ø* 'move quickly'
- (53) WJI *kalyartu* 'substitute reference to a deceased person'; YDN *kaja* 'male ghost, white man'
- (54) BAA *kalhila* 'sick'; BGU *kaja* 'rotten'; GYA *nganjay* '1. no good, wilted, 2. bad smell'; YIM *katha* 'rotten', *katha-warra* 'unconscious'; WEM *kajina* 'to be unable'; YUW *katharrkatharr* 'ragged'
- (55) MDB *kalyja* 'shallow'; GYA *ngajal* 'shallow'
- (56) DIY *kalhthi* 'spear'; GID *kalan* 'sharp'; NYW *kanyjapa-L* 'spear (using woomera)'; Residue: GYA *kayi-l* '1. to hook with a hook spear, 2. to charm, to fascinate'; YIM *kayii-l* 'hook, snare'
- (57) NYU *kalykat* 'cheeks, side of face'; BGU *ngalki* 'cheek'
- (58) BAA *kalypu* 'by and by, later on'; Residue: GUM *kaywara* 'earlier today'
- (59) NGL *kalyu* 'a call'; NMA *kalhu-ku* 'to call out to'; DYI *ngajan* 'a language'; GID *ngalawa*- 'to search, to hunt, to ask', *ngalawa-y* 'question'; GYA *nganja* '1. taste, 2. voice of one's spirit left behind'; GUM *kayi*- 'speak, talk'; NYW *waja* 'language', *waja-mpi-Ø* 'talk'; YUW *kaay* 'word, message', *kaya-l* 'answer', *kaya* 'language'
- (60) NGL *kulya* 'bait (n.)'; NMA *kulhakulhara* 'grub-like animal in sea...'; PK **kulhiny* 'maggot'; BGU *ngunthany* 'shrimp'; GID *kulany* 'tick'; YDN *wulur* 'large shrimp...'; Residue: GYA *kuyalin* 'small conical shellfish, used for bait'
- (61) NMA *kulhanga-lku* '1. to hit him with a stone, 2. to pound up'; BGU *kuja*- 'to hit by throwing'; NYW *ngulan* 'stone tomahawk'; YDN *kunyji-N* 'break'
- (62) NGL *kulyu* 'plenty'; BGU *kuthu* 'a lot'; GID *kulumu* 'everywhere, all around here'; GYA *kulur* 'three'; GUM *kujaarr* 'completely, till finished'; YIM *kuthiira* 'two'; WEM *kuli* 'crowd, mob'; YUW *kulipaa* 'three'
- (63) NMA *kulyu* 'large potato species on table lands'; WJI *kulyu* 'native sweet potato'; NYW *kujam* 'yam'; YDN *kunyjankarra* 'beach yam'
- (64) BAA *kulyu-kulya*- 'to rake up, to pile up (leaves and branches)'; YDN *kujarra* 'broom'
- (65) NYU *kulumij* 'in pretence, deceitfully'; BGU *kuntha*- 'to steal'; GID *wuyurr* 'thief'; GYA *nguju* 'fun'; YIM *nguthu* 'game, play'; WEM *kulingulang* 'a sly person'; YDN *wunyjay* 'a stolen thing'
- (66) MDB *kulyurr* 'head cold', *kulyurrk* 'cough'; GYA *kunji* 'sneeze (n.)'
- (67) PK **kulhuwi* 'red'; BGU *kuthikuthi* 'red', *kuthirri* 'red or yellow'; GYA *kunjin* 'fire'
- (68) BAA *kuulyi* ~ *kuulyi-kuulyi* ~ *kuulyurru* 'winter, cold season'; GUM *kuluun* 'rain'
- (69) NGL *malya* '1. father, 2. father's younger brother'; BGU *manthi* 'uncle'; GUM *paali* 'father (rarely used)'
- (70) NGL *malya ja-n* 'Soak it!'; GID *palun* 'river, creek'; NYW *wajiri-L* 'spill, pour, chuck out (water)'

- (71) PKM **malha-L* 'to crush'; GID *panyji-* 'to tap, to hammer'; YDN *paji-L* 'bash something on something else'; YUW *mayu-?* 'tread on' Residue: YIM *payja-rr* 'cover, crush'
- (72) DIY *malhanyji* 'bad'; PK **malyarra-Y* 'to be sick'; PNG *malya.rra* 'sick'; GYA *pajaypajay* 'painful'
- (73) NGL *malyamu* 'slowly, steadily'; GUM *palama* 'slowly'; YUW *paluwaa* 'slow'
- (74) NYU *malyern* 'star, stars'; YUW *maliyankaalay* 'morning stars'
- (75) NMA *malhil* 'tired, lazy, dragging'; PNG **malhil, jarri* 'to become tired, weak'; GYA *majarr* 'lazy, no good for hunting or working'
- (76) DIY *malhthi* 'cool'; Residue: YUW *paliyaa* 'cold'
- (77) MDB *malyju* 'male (of person, horse)'; GID *palukaan* 'one kind of male spirit-being; handsome'
- (78) DIY *malyuda* 'cormorant'; WEM *walawalak* 'little black cormorant, *Phalacrocorax ater*'
- (79) NMA *milya* 'small white non-poisonous snake species...'; PNG **milhu.ra* 'snake'; WJI *milyurra* 'venomous snake'; GYA *pinju* 'small black snake, light or reddish belly, poisonous'; NYW *piyajala* 'dark-coloured water snake'
- (80) NMA *milya-lku* 'to lick it'; PNG **milya-(L)-* 'lick, drink'; GYA *pija-l* 'to lick'
- (81) WJI *milyu* 'bark lizard, skink'; DYI *pinyjiriny* 'small lizard'
- (82) DIY *mulha* 'nose, face'; NGL *mulya* 'nose, an end, corner'; NMA *mulyayirta* 'nose bone'; NYU *mulh - moly* 'face'; PKM **mulha* 'nose'; PNG **mulha* 'nose, face'; WJI *mulya* 'nose (metonym for face)'; GYA *pujil* '1. nose, 2. point of land which juts out into the sea, 3. mouth of river'; YIM *puthiil* 'nose'; NYW *mulin* 'lip'; YUW *myyu* 'nose' (see also O'Grady (1990a:84, 1990c:470, 1990d:4))
- (83) MDB *mulyukuna* 'black-headed python'; YUW *wuyupuluuy* 'black snake'
- (84) DIY *ngalha* 'cheek'; GUM *ngaala* 'side'
- (85) PKM **ngulha* 'nothing'; BGU *kuju ~ kujukuju* 'short'; GYA *wulji-l* 'to empty out, bail out'; YDN *nguju* 'not, never, no' (see also O'Grady (1987:519))
- (86) NYU *ngulya* 'brother-in-law'; GID *wuyang* 'male ego's brother-in-law'; GUM *kuyu* 'brother'; YUW *kuyintaay* 'brother-in-law'
- (87) BAA *ngulya-* 'to wash'; GYA *kunjirr* 'cleansed from a dead person's spirit'; GUM *wuluuki-* 'bathe, bogey'; NYW *nguja ~ ngujanguja* 'wet'; WEM *kulaia-* 'to be wet'; YDN *kujan* 'wet'
- (88) PK **palha* 'brother'; YUW *pathuulngaa* 'mother-in-law's brother'
- (89) NMA *palya* 'thin, skinny'; GYA *pajipay* 'bone'; YIM *pathipay* 'bone'; YUW *pajin* 'small' (see also O'Grady (1990b:231))
- (90) NMA *palharra* 'green, green grass...'; GUM *wajaarr* 'grass, ground, country'; YDN *paja* 'large grassy plain'
- (91) PK **palharta* 'blue-tongue lizard'; DYI *pajirri* 'water guana'; GID *waanjil* '1. species of lizard..., 2. swagman'; GYA *pajapaja* 'blue-tongue lizard'; YUW *waluupaal* 'sleepy lizard'

- (92) MDB *pilyak* 'hot, burnt'; YIM *minhthil* 'hot'; WEM *pijəka* 'to warm oneself', *yotayota-pija* 'fire'; YDN *milirri* 'pins and needles, fever'
- (93) PKM **pilhi* 'buttocks'; PNG **pilya* 'vagina, clitoris'; DYI *pijama-l* 'swive (have sexual intercourse with)'; GYA *piji* 'tail', *pijikan* 'stern of boat' (see also O'Grady (1990c:470), in which he combines this set with that in (96))
- (94) NGL *pilyka* 'a crack'; GID *pilkurruung* 'thin straight stick used to pin together the edges of the slit made in order to gut an animal, prior to cooking'
- (95) PK **pilykuru* 'fish'; GYA *milkaji* 'small mullet'; Residue: YDN *pilkir* 'small catfish'
- (96) NGL *pilyurr* 'a "promised" spouse'; NYU *pily* 'umbilicus, navel'; PK **pilyarr* 'baby'; YIM *pitha* 'small'; WEM *witheyuk* 'small, little' (see also O'Grady (1990c:470), in which he combines this set with that in (93))
- (97) NGL *pulyamarra* 'calf of leg'; PKM **pulharn* 'calf of leg'; YUW *puyu* 'leg'
- (98) NYU *pulyatak* 'diagnostician, sorcerer'; WJI *pulyaman* 'doctor, sorcerer'; GID *wuyan* ~ *wiyan* 'clever (in supernatural matters)', *wuyan-kali* 'clever-man, doctor'
- (99) PM **pulhu* 'short'; GID *mul* 'short'; NYW *puju* 'blunt'
- (100) PM **puulya-ru* 'to blow'; GYA *punjurri-l* 'to blow (trv)'; GUM *muya* 'breath'; YIM *wunyju-rr* 'blow on, blow away'; NYW *puya-L* 'blow'; YDN *puju+piya-L* 'blow at someone'; YUW *pulirru* 'breath', *pulirru-l* 'breathe'; Residue: BGU *puyu* 'breath'; DYI *puya-l* 'blow, puff'
- (101) PK **puulya-L* 'to blow'; BGU *pulpu-* 'to blow'; DYI *pulwa-l* 'expel breath in big gasps'; GYA *wulmparri-l* 'to blow'; Residue: YDN *puypu-R* 'blow at, fan'
- (102) BAA *walya* 'not, don't'; NGL *walyi* 'almost, nearly'; NMA *walyil-kulhangu-lku* 'to miss – with object thrown'; PM **walhi* 'bad'; BGU *wanju* 'bad, no good'; GUM *waali-* 'die'; YIM *wathi* 'wounded'; WEM *wathənjən* 'dead'; YUW *waal* 'no, don't'
- (103) BAA *walya* 'bottom, behind'; GID *pale* 'beneath, lower surface'; GYA *wali* 'downwards'; GUM *waala* 'behind, back of'
- (104) PM **walhangu* 'youth'; GYA *wanji-paka* 'overactive children'; NYW *walumurrku* 'baby'; WEM *wathip* 'son'
- (105) BAA *waly-mala-* 'to dangle, to hang free'; DYI *walma-y* 'arise, get up', *walmpi-l* 'raise, lift, wake up' GID *walpa-* 'to hang, to suspend'
- (106) NGL *walyi ma-n* 'Lose it!'; DYI *ngaji-l* 'lose, take absolutely no notice of, ignore'; GID *walany* 'disappearance'
- (107) PK **walyparta* 'lightning'; GYA *palpay* 'lightning'; Residue: GID *wayparr* 'fire; camp; firewood; matches'
- (108) NGL *wilyuru* 'not wanting something'; DYI *miju-l* 'take no notice of'; GUM *piyakay* 'not'; NYW *piyay* ~ *piya* 'not', *piyayngkul* 'no, no more, nothing'
- (109) PKM **yalha* 'ground, sand'; BGU *nhanthi* 'ground, dirt'
- (110) BAA *yalhtha* 'I don't know'; GYA *nyaji-l* 'to perceive, to hear, to see'; Residue: WEM *yalang-yalang* 'idiot, stupid person'

- (111) WJI *yalypa* 'many, all, much'; GYA *yalyay* 'big'
- (112) NGL *yalyuru* 'tongue'; NMA *yalhuru* 'tongue'; PK **yalhuru* 'flame'; PNG *yalhu.ru* 'tongue'; GID *yalany* 'tongue'; GUM *jalaany* 'mouth'; YIM *yaaji-l* 'burn'; NYW *jalany* 'tongue'; WEM *jalingin* 'your tongue', *jalinyuk* "'its tongue", i.e. a flame'; YUW *thalay* 'tongue'; Residue: BGU *thalany* 'tongue, first trickle of flowing water' (see also O'Grady (1987:523, 526, 1990a:83, 97))
- (113) NGL *yilya* 'a green stick'; YDN *jilan* 'small sticks (which may still be attached to a tree), broken in such a way as to show the direction in which someone has gone'
- (114) MDB *yilyil* 'hang'; YUW *yilaa-l* 'tie up'
- (115) NGL *yilyurra-n* 'Lick it!'; YUW *thiija-l* 'lick'

APPENDIX: ABBREVIATIONS AND SOURCES

BAA	Baagandji	Hercus (1982)
BGU	Bidyara-Gungabula	Breen (1973)
DIY	Diyari	Austin (1981a, and fieldnotes)
DYI	Dyirbal	Dixon (1972)
	Gawurna	Teichelmann and Schürmann (1840)
GID	Gidabal	Geytenbeek and Geytenbeek (1971)
GUM	Gumbaynggir	Eades (1979)
GYA	Gugu-Yalanji	Hershberger and Hershberger (1982)
MDB	Mudburra	David Nash (fieldnotes)
NGL	Ngarla	Brown and Geytenbeek (1991)
NMA	Ngarluma	Hale (1982)
NYU	Nyungar	Douglas (1976)
NYW	Nyawaygi	Dixon (1983)
PK	Proto Kanyara	Austin (1981b, 1988)
PKM	Proto Kanyara-Mantharta	Austin (1981b, 1988)
PM	Proto Mantharta	Austin (1981b, 1988)
PNG	Proto Ngayarda	O'Grady (1966)
	Wadjuk	Moore (1884)
WEM	Wembawemba	Hercus (1969)
WJI	Watjarri	Douglas (1981)
YDN	Yidiny	Dixon (1991)
YIM	Guugu Yimidhirr	Haviland (1979)
YUW	Yuwaalaraay	Williams (1980)

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