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REASSESSING THE WIDER GENEALOGICAL AFFILIATIONS OF THE TIMOR-ALOR-PANTAR LANGUAGES

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Abstract

The wider genealogical affiliations of the Timor-Alor-Pantar languages have been the subject of much speculation. These languages are surrounded by unrelated Austronesian languages, and attempts to locate related languages have focused on Papuan languages 800 km or more distant. In this paper we examine three hypotheses for genealogical relatedness, drawing on both pronominal and especially lexical evidence. We rely in particular on recent reconstructions of proto-Alor-Pantar vocabulary. Of the hypotheses evaluated here, we find the most striking similarities between TAP and the West Bomberai family. However, we conclude that the evidence currently available is insufficient to confirm a genealogical relationship with West Bomberai or any other family, and hence, TAP must be considered a family-level isolate.

Keywords: Timor-Alor-Pantar, Trans-New Guinea, North Halmahera, historical linguistics, language classification, Papuan languages

1. INTRODUCTION

The non-Austronesian languages of the Alor and Pantar islands in eastern Indonesia have been shown to form a genealogical unit (Holton et al. 2012); and the neighboring non-Austronesian languages of Timor have also been shown to form a genealogical unit (Schapper et al., this issue). Cognates between Alor-Pantar, on the one hand, and Timor, on the other, are apparent, and the two groups are presumed here to be genealogically related, even if the exact subgrouping and sound correspondences remain to be worked out. The possible wider genealogical affiliations of the presumed Timor-Alor-Pantar family, however, have never been rigorously examined. Most modern authors assume a connection to Trans-New Guinea languages, based primarily on evidence from pronominal paradigms (Ross 2005). However, several other plausible hypotheses have been proposed. The Timor-Alor-Pantar (TAP) languages are surrounded on all sides by Austronesian languages, with the

nearest Papuan (non-Austronesian) language located some 800 km distant.¹ Some putative relatives of the TAP family are shown in Figure 1 below.

Figure 1: Location of Timor-Alor-Pantar languages (lower left) and putative related families discussed in this paper

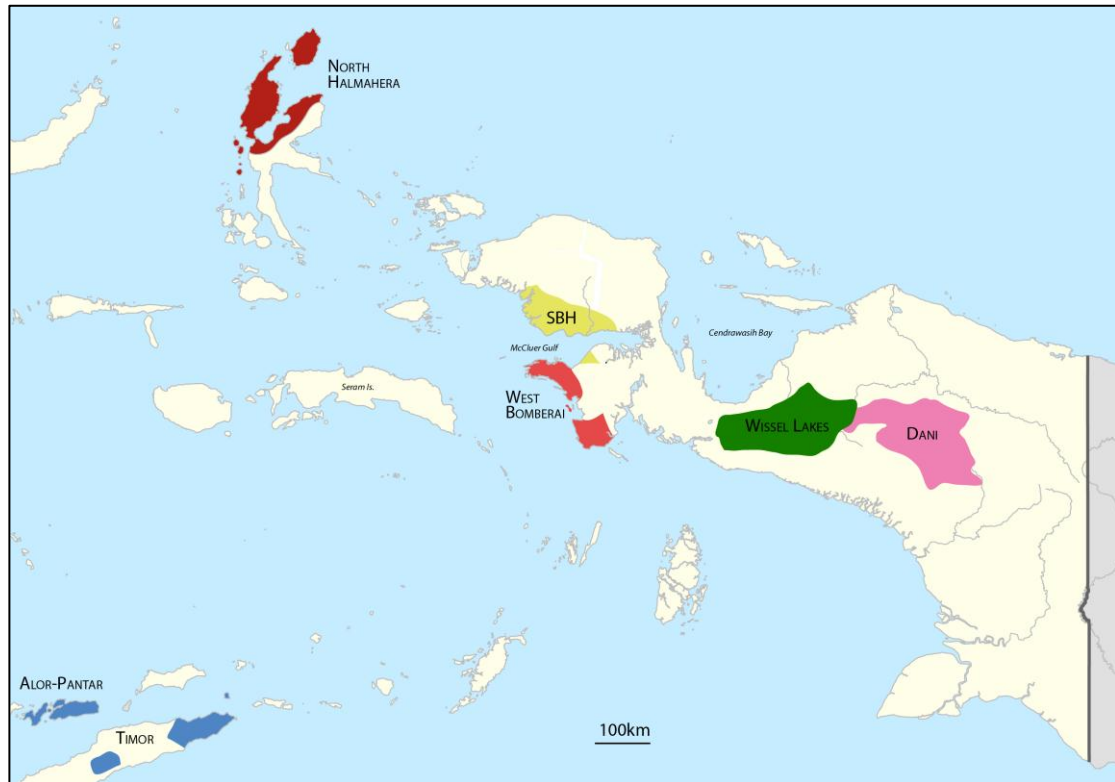
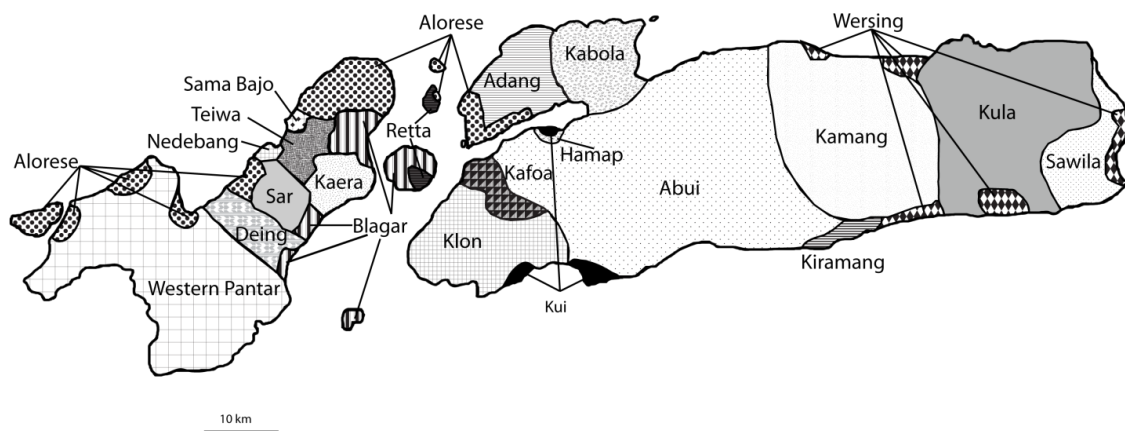


Figure 2: Location of Alor-Pantar languages



In this paper, we will consider three hypotheses about the wider relationships of the TAP family: (1) the TAP languages are related to the North Halmaheran (NH) languages; (2) the

TAP languages belong to the Trans-New Guinea (TNG) family (broadly defined); (3) the TAP languages are related to certain Papuan languages within the putative TNG family, though the evidence linking them with TNG as a whole is indeterminate. Finally, we consider the null hypothesis that the TAP languages are not demonstrably related to any other languages; that is, they form a family-level isolate. In order to examine the first two hypotheses we compare TAP reconstructed forms with proposed reconstructions for North Halmahera and Trans-New Guinea, respectively. In order to evaluate the third hypothesis we compare TAP reconstructions with directly with languages from four smaller families: South Bird's Head; Wissel Lakes; Dani; and West Bomberai. Although each of these families has been claimed to be a part of some version of the larger Trans-New Guinea group, the composition of these smaller families is uncontroversial and thus allows us to evaluate potential wider affiliations while remaining agnostic as to the status of Trans-New Guinea itself. Ideally, we would compare TAP to reconstructed proto-languages for each of these four families; however, given the limited historical work done on those families we instead choose representative languages as exemplars from each family for comparison with TAP. We examine each of the three hypotheses in light of recently collected data on the TAP languages, considering both pronominal and lexical evidence. Finally, we conclude with a discussion of the null hypothesis that the TAP languages form a family-level isolate.

The first hypothesis was suggested (and quickly discarded) by Capell (1944), who noted similarities between the Papuan languages of Timor and those of North Halmahera but initially refrained from asserting a genealogical relationship. By that time the non-Austronesian character of the NH languages had long since been recognized, having been mentioned by Robide van der Aa (1872) and later rigorously demonstrated by van der Veen (1915). Anceaux (1973), commenting on a field work report from the Pantar language Teiwa (Watusake 1973), proposed including Teiwa and several Alor languages (Abui, Wersing, Kui) with Cowan's (1957) West Papuan group, which included NH.² As later formalized, Capell's (1975) West Papuan Phylum included the "Alor-Timor" languages. In fact, only one Alor language, Abui, was included in Capell's grouping, as Capell only belatedly became aware of the other extant Alor sources. Even with these additional data, Capell was quite conscious of the tenuous nature of the putative relationship between TAP (actually Alor-Timor) and North Halmahera, particularly the lack of identifiable lexical correspondences. He thus proposed a major split between Alor-Timor (and some Bird's Head languages) on the one hand, and the rest of the West Papuan Phylum on the other. Stokhof suggested

connecting TAP with several languages of the Western Bird's Head of New Guinea, concluding that "the Alor-Pantar languages form a closely related group with Cowan's West Papuan Phylum" (1975: 26). However, the putative West Papuan languages with which Stokhof compared Alor-Pantar were later reclassified as Trans-New Guinea, rendering this lexical evidence moot. More recently Donohue (2008) has revived the NH hypothesis, based largely on pronominal evidence.

With the exception of this recent work by Donohue, the second hypothesis connecting TAP with TNG has largely supplanted the NH hypothesis in the literature. Capell's (1975) paper arguing for the NH hypothesis was published with an editorial preface noting that the TAP languages should instead be included within TNG (Wurm 1975: 667). However, the accompanying paper on the TNG hypothesis in the same volume provides no data to back up this classification and instead remains skeptical as to whether TAP should be classified as Trans-New Guinea or West Papuan. In particular, the authors assert that "whichever way they [the TAP languages] are classified, they contain strong substratum elements of the other ... phyla involved" (Wurm et al. 1975: 318). Only recently have additional data been provided to support the TNG hypothesis. Pawley (2001) cites lexical evidence from TAP languages in support of pTNG reconstructions. Ross (2005) connects TAP to TNG more broadly based on pronominal evidence. Although the evidence for the TNG hypothesis is far from overwhelming, it is today the most widely received classification, appearing for example in the most recent edition of the *Ethnologue* (Lewis 2009).

One of the challenges to finding support for the TNG hypothesis is the sheer size and diversity which exists within the family. Rather than considering TNG as a whole it is useful to consider smaller families within TNG. Two proposals stand out. Reesink (1996) suggests connections between TAP and the South Bird's Head family (specifically the Inanwatan language). Cowan (1953) also made this connection, though he went further to group both TAP and South Bird's Head within his West Papuan Phylum. A second proposal is made by Ross (2005), who considers TAP "possibly part of a western TNG linkage" including West Bomberai, Wissel Lakes, and Dani. As Ross explains, this more circumscribed linkage is a group of languages descended from a dialect chain and therefore characterized by overlapping innovations. In particular, Ross notes that these languages (including the Timor languages, but excluding the Alor and Pantar languages) all show an innovative metathesis of CV to VC in the first person singular pronoun and that the TAP languages share an

innovative first person plural pronoun with the West Bomberai languages (2005: 36). We are not aware of any serious proposals connecting TAP to Papuan languages outside NH (and the West Papuan Phylum) and TNG.

The possibility that the TAP languages form a family-level isolate not demonstrably related to other Papuan languages was actually suggested by Capell, who concluded:

“Neither are the ‘Papuan’ languages outside New Guinea, in the Solomons, New Britain, Halmahera or Timor related to each other or to those of New Guinea. At least it cannot be assumed that any two are related....” (1944:313)

However, this null hypothesis has not, to our knowledge, been given serious consideration in the literature. We return to this point in our conclusion (section 5). In the meantime we evaluate the first two hypotheses in light of the pronominal evidence (section 2); and the lexical evidence (section 3). Evidence for the third hypothesis is considered in section 4.

2. PRONOMINAL EVIDENCE

When combined with other lines of evidence, homologous pronominal paradigms can provide additional support for proposals of genealogical relatedness. However, the use of pronominal paradigms as the *sole* evidence for genealogical relatedness has been repeatedly questioned in the literature (cf. Campbell 1997). Pronominal paradigms were an important basis for the development of the Trans-New Guinea hypothesis (Wurm et al. 1975), and pronouns have continued to play a starring role in attempts to subgroup those languages (Ross 2005, 2006).³ In this section we consider the strength of the pronominal evidence in evaluating the Trans-New Guinea and North Halmaheran hypotheses.

The pAP pronouns (standing in for pTAP) are shown in Table 1, together with the pTNG (Ross 2005) and pNH (Wada 1980) pronouns. Note that North Halmaheran pronouns are reconstructed in two forms corresponding to actor (subject) and undergoer (object).

Table 1: pAP, pTNG, and pNH pronouns

	pAP	pTNG	pNH	
			ACT	UND
1SG	*na-	*na	*to-	*si-
2SG	*(h)a-	*ŋga	*no-	ni-
3SG	*ga-	*ua, *(j)a	*mo- (F) *wo- (M) *i- (N)	*mi- (F) *wi- (M) *ya- (N)
1PL.INC	*pi-	*nu, *ni	*po-	*na-
1PL.EXC	*ni-		*mi-	*mi-
1DISTR	*ta-	-	-	-
2PL	*(h)i-	*ŋji, *ŋgi	*ni-	*ni-
3PL	*gi-	*i	*jo-	*ja-

Several structural differences are noticeable between these pronoun sets. First, AP and NH show an inclusive/exclusive distinction in first person plural which is not found in TNG. This has been argued to be an areal feature resulting from Austronesian influence (Klamer et al. 2008). Second, NH but not AP or TNG distinguish gender in third person pronouns. Third, a distributive pronoun is found only in AP.

We consider first the TNG pronouns. The pTNG pronominal reconstructions provide what many consider to be the strongest support for the genealogical connection between TAP and TNG (Ross 2005). Both pTNG and pAP show a paradigmatic distinction between *a* in the singular and *i* in the plural. However, the correspondence is problematic due to the mismatch between the second and third person pronouns. pTNG shows a velar consonant in the second person forms, while pAP shows a velar consonant in the third person forms. It has been suggested that the pTNG second person pronouns could have developed into the pAP second person pronouns by lenition of pTNG *ŋg > *g > *k > h. While this is possible, we find stronger evidence that the pTNG prenasalized obstruents should correspond to the pAP voiced stops, if indeed the two are related at all.

Another possible scenario connecting these two paradigms is to posit a flip-flop between the second and third person pronouns, as in (1). As far as we are aware such an inversion scenario was first proposed by Donohue and Schapper (2007).

(1) Putative flip-flop between second and third person pronouns

pTNG *ŋga ‘2SG’ > pAP *ga- ‘3SG’, pTNG *ŋgi ‘2PL’ > pAP *gi- ‘3PL’
 pTNG *(y)a ‘3SG’ > pAP *(h)a- ‘2SG’, pTNG *i ‘3PL’ > pAP *(h)i- ‘2PL’

This leaves only the fricative in the pAP second person forms unexplained, but external evidence from the Timor languages suggests that perhaps the pAP second person forms should be vowel initial (i.e., pAP *a ‘2SG’ and *i ‘2PL’). While it is not impossible that the pAP pronouns descend from the pTNG pronouns in this way, connecting the two requires us to posit a flip makes the correspondence much less striking.

The putative correspondence between the pAP and pTNG pronouns leaves at least one AP form unexplained: the AP distributive *ta- has no correspondent form in TNG. Donohue (2008) posits a connection between the AP distributive and the pNH first-singular active form *to-. This is suggested not as a genealogical relationship but as a possible borrowing relationship within a contact area encompassing the Bomberai Peninsula and South Bird’s Head region. The semantic plausibility of this connection is based on an analysis of *ta- as the minimal 12-person pronoun in a minimal-augmented system (Donohue 2007b). However, the augmented counterpart is filled anomalously by *pi-, rather than the expected **ti-, though pAP *pi- does show striking semantic and structural similarity with pNH first person inclusive *po-. Yet in the modern Alor-Pantar languages reflexes of *ta-, where they exist, have a clear distributive function. For example, compare the Adang first person plural inclusive (2a) with the distributive (2b).

(2) Adang (TAP) distributive

- a. sa pi-ri bɛh
 3SG 1PL.INC-ACC hit
 ‘she hit (all of) us’ (Haan 2001)
- b. sa ta-ri bɛh
 3SG DISTR-ACC hit
 ‘she hit each one of us’ (Haan 2001)

The distributive function is expressed quite differently in NH languages. In Tobelo the distributive is expressed with the verb prefix *koki-* (3) rather than with a pronoun.

(3) Tobelo (NH) distributive

- ma-homoa yo-koki-honeng-oka
NM-other 3PL-DISTR-die-PERF
‘each of the others died’ (Holton 2003)

So it seems likely that the resemblance between pNH *to ‘1SG’ and pAP *ta ‘1PL.DIST’ is coincidental. Nonetheless, Donohue’s (2008) suggestion of a distinct history for the AP distributive pronoun could explain the extra-paradigmatic status of this pronoun.

The structural features of the pronominal systems are compared in Table 2. It is apparent that the TAP pronominal system as a whole has relatively little in common with TNG and NH.

Table 2: Summary of TAP, TNG, and NH pronominal features

	AP	TNG	NH
[a] singular, [i] plural	✓	✓	-
distributive pronoun	✓	-	-
inclusive/exclusive distinction	✓	-	✓
gender distinction	-	-	✓

Given the rather speculative nature of the second-third person inversion hypothesis, the pronominal evidence does not provide very strong support for either the TNG or NH hypothesis. Nevertheless, the formal correspondence in first-person forms between AP and TNG provide tentative support for a connection between TAP and TNG.

3. LEXICON

While lexical evidence alone is rarely considered proof of a genealogical relationship, most linguists consider regular sound correspondences within the lexicon to be strong evidence of a relationship (Campbell & Poser 2008). When combined with evidence from morphological paradigms, such as pronouns, lexical evidence based on regular sound correspondences is usually considered the most compelling evidence for positing genealogical relationships between languages. Unfortunately, very little in the way of lexical evidence has been previously considered in assessing the wider genealogical relationships of the TAP languages. We consider first the lexical evidence for the NH hypothesis and then the lexical evidence for the TNG hypothesis.

3.1 LEXICAL EVIDENCE FOR THE NH HYPOTHESIS

The lexical evidence for a connection between TAP and NH languages is not particularly convincing. In a list of 92 basic vocabulary terms Capell identifies 11 which seem to show “common roots” (1975: 685). Capell did not include data from Pantar languages and hence refers to this family as Alor-Timor. In many cases Capell’s proposed Alor-Timor forms differ from the pAP reconstructions in Holton et al. (2012). This may be due in some cases to undue reliance on Timor forms. In Table 3 we list Capell’s Alor-Timor alongside Alor-Pantar forms from our own data—either pAP reconstructions, where available, or words in individual AP

languages. In two cases Capell's form is quite different from the AP form. Capell's *hele* 'stone' differs from pAP *war but compares to Bunaq (Timor) *hol*. We have no reconstruction for 'cut' in pAP, but Capell's form *uti* compares with Makalero (Timor) *teri*. Three of Capell's NH reconstructions are also problematic; we have noted these problems in the last column in Table 3. Capell's NH *utu should clearly be *uku, perhaps a typographical error. Capell's *helewo is found in Tobelo but does not reconstruct to NH. We are not able to identify Capell's *hate; the form *gota reconstructs for the family.

Table 3: Comparison of Capell's TAP ("Alor-Timor") and NH, with modern reassessments

	"Alor-Timor" (Capell)	AP (revised)	NH (Capell)	NH (revised)
'bitter'	malara	proto-Alor (but not pAP) *makal	*mali	
'cold'	palata	Ab, Kui <i>palata</i>	*malata	
'cry out'	(k)ole	Nd <i>uwara</i> , Sw <i>kawa</i>	*orehe	
'cut'	uti	Makalero (Timor) <i>teri</i>	*ŋuki	
'fall'	tapa	WP <i>tasing</i> , Sw <i>taani</i>	*tiwa	
'fire'	ata	pAP *had(a)	*utu	*uku
'flower'	buk	Bl <i>buma</i> , Kl <i>bɔ:m</i> , Kui <i>bungan</i>	*hohoko	
'fly (n.)'	uhur(u)	Kaera <i>ubar</i>	*guhuru	
'smell'	ʔamuhu	Tw <i>min</i> , Nd <i>mini</i> , Bl <i>miming</i> , Ad <i>muning</i> , Kl <i>moin</i> , Kui <i>mun</i> , We <i>muing</i>	*ami	
'stone'	hele	Bunaq (Timor) <i>hol</i> , pAP *war	*helewo	Galela <i>teto</i> , Tabaru <i>madi</i>
'tree'	ate	pAP *tei	*hate	*gota

Even allowing for problematic forms in Table 3 it is difficult to infer much about regular sound correspondences from this list, since few of the correspondences repeat. A correspondence *m : *m is found in 'bitter' and 'smell'; however, the forms for 'cold' reflect a different correspondence *p : *m. Careful inspection of Capell's proposed correspondence reveals little or no evidence for a relationship between TAP and NH languages.

Donohue (2008) lists two proposed lexical correspondences between pTAP and pNH. One of these, 'tree', is also found in Capell's list, though Donohue reconstructs pTAP *aDa, supporting a correspondence between pTAP *D and pNH *t. The other, pTAP *jar, pNH *aker 'water' supports a correspondence between pTAP *r and pNH *r.⁴ As with Capell's similar forms it is difficult to infer anything about sound correspondences from these two

forms. Chance resemblance remains the most economical explanation, though some similarities may also be due to loans from a common source.

The lack of lexical correspondences in the data cited by Capell and by Donohue may be due in part to the unavailability of extensive lexical data for TAP. Thanks to recent work on the Alor-Pantar branch of TAP we now have available a number of reconstructions of pAP forms (Holton et al. 2012). Of the 97 reconstructed pAP forms (excluding pronouns), 63 have glosses which can also be found in Wada's (1980) pNH reconstructions or can be easily reconstructed based on existing NH data. These 63 forms are compared in Table 4. (A double dagger † indicates a form which is not in Wada.)

Table 4: pNH forms (after Wada 1980) with pAP equivalents

	pNH	pAP
take, hold	*aho	*p(i,u)nV
water	*aker	*jira
blood	*aun	*wai
tail	*bikin	*-or(a)
come	*bola	*mai
banana	*bole†	*mogol
six	*butaŋa	*talam
smoke	*dopo	*bunaq
louse/flea	*gani	*jira(n)
salt/saltwater	*gasi	*tam
hand	*giam	*tan
nail	*gitipir	*kusin
sit	*goger	*mis
bite	*goli	*asi
tree	*gota	*tei
give	*hike	*-ena
laugh	*hijete	*jari
village	*hoana†	*haban
spit	*hobir	*purVN
coconut	*igono†	*wat(a)
four	*ihat	*-b)uta
tooth	*iŋir	*-uas
spear	*kamanu	*qaba(k)
thick	*kipirin	*dumV
tongue	*akir	*-leb(ur)
bat	*mano †	*madel
moon	*mede	*wur
ten	*mogiowok	*qar-
one	*moi	*nuk
betel nut	*mokoro†	*bui
five	*motoha	*jiwesin
bird	*namo	*dVl

	pNH	pAP
dream	*naner†	*hipar
fish	*nawok	*hab(i)
ear	*ŋauk	*-uar(i)
sea	*ŋolot	*tam
star	*ŋoma	*jib(V)
child	*ŋopak	*-uaqal
nose	*ŋunuŋ	*-mim
eat	*oðom	*nai
bathe	*ohik†	*weli
stand	*oko	*tas
they	*ona, yo	*gi-
belly	*pokor	*-tok
knee	*puku	*uku
name	*roŋa	*-ain(i,u)
three	*saŋe	*atiga
fat, grease	*saki	*tama
throw	*sariwi	*od
two	*sinoto	*araqu
die	*sonen	*minV
fruit	*sopok	*is(i)
burn	*sora, soŋara	*Vde
fly	*sosor	*jira(n)
black	*tarom	*aqana
stone	*teto	*war
short	*timisi	*tukV
pierce	*topok	*tapai
bad	*torou	*jasi
drink	*uðom	*nai
fire	*uku	*had(a)
he	*una, wo	*ga-
sun	*waŋe	*wad(i)

Of these 63 forms, only 5 items (highlighted grey in the table) show some kind of plausible correspondence: *b:*m, *t:*t, and *k:*q. Again, with so few items it is impossible to infer anything about regular sound correspondences. And with only 8% of these basic vocabulary items showing any potential cognacy, there is no clear lexical evidence for a genealogical connection between TAP and NH languages.

3.2 LEXICAL EVIDENCE FOR THE TNG HYPOTHESIS

In this section we consider the lexical evidence for the TNG hypothesis. For this purpose we use the rather broad formulation of TNG in Pawley (2005) and Ross (2005), which includes both TAP and South Bird's Head. While no bottom-up reconstruction of proto-TNG has been completed, a set of top-down lexical reconstructions with extensive reflexes has been widely circulated as Pawley (n.d.). Some of these forms were included as support for the reconstruction of pTNG obstruents (Pawley 2001). We are not in a position here to assess the validity or quality of Pawley's reconstructions. Rather, our intent is to assess the lexical evidence for a connection between TAP and TNG based on the available data. The pTNG lexicon shows more striking correspondences with TAP languages. Pawley (n.d.) proposes 21 pTNG reconstructions with putative TAP reflexes, out of approximately 180 pTNG reconstructions. Of those, twelve (shown in (4)-(15) below) appear to exhibit regular sound correspondences. Example (4) shows possible cognates in both pAP and proto-Timor (pTim, which includes Bunaq, Makasae, Fataluku, and Oirata; see Figure 1). Although the pAP and pTim reconstructions are similar, we will hold off on positing proto-Timor Alor Pantar (pTAP) reconstructions until more is known about the correspondences between the two branches of the family, though see Schapper et al (this issue). The reconstructed pTNG form encompasses the meanings 'tree', 'wood', and 'fire', but in the TAP languages, only the latter two meanings are found. There is a separate reconstruction for 'tree' in pAP.

- (4) pTNG *inda 'tree, wood, fire', pAP *had(a) 'fire, wood', pTim *haTa 'fire, wood'

Examples (5) through (7) have reconstructions in just one of the two main branches of TAP, but they show some reflexes in the other branch, and will therefore probably be reconstructed to pTAP. Note that pTNG *L is probably a laterally released velar stop, so pharyngeal and velar fricatives would not be strange reflexes.

- (5) pTNG *maL[a], Teiwa (AP) *moħo?*, Kaera (AP) *maxa*, Klon (AP) *məke?*, pTim *muKa 'ground, earth'
- (6) pTNG *panV 'woman', Kamang (AP) *fon* 'girl', pTim *Pana(r) 'woman'

- (7) pTNG *amu, pAP *hami, Makasae (Tim), Fataluku (Tim) *ami* ‘breast’

Examples (8) through (10) have reconstructions in just one of the two main branches of TAP, although we should note that absence of a pTim reconstruction is often simply due to the preliminary nature of reconstruction for that group.

- (8) pTNG *na-, pAP *nai ‘eat, drink’
 (9) pTNG *tukumba(C), pAP *tuk ‘short’
 (10) pTNG *kumV, pTim *umV ‘die’

Examples (11) and (12) are found in a number of languages in both branches and are probably reconstructable to pTAP.

- (11) pTNG *^agatata, Blagar (AP) *tata*, Adang (AP) *taʔata*, Klon (AP) *təkət*, Kui (AP) *takata*, Abui (AP) *takata* Fataluku (Tim), Oirata (Tim) *tata*, ‘dry’
 (12) pTNG *ini, Blagar (AP), Adang (AP) *-eŋ*, Klon (AP), Kui (AP) *-en*, Abui (AP) *-eiŋ*, Kamang (AP) *-ŋ*, Makasae (Tim) *ena*, Oirata (Tim) *ina* ‘eye’

Examples (13) through (15) are found only in the Timor languages, and there is not yet any reconstruction for these terms.

- (13) pTNG *mundu ‘internal organ’, Oirata (Tim) *mudu* ‘inside’, Makasae (Tim) *mutu* ‘in’
 (14) pTNG *sasak, Oriata (Tim) *asah*, Makasae (Tim) *asa* ‘leaf’
 (15) pTNG *kitu ‘leg (possibly ‘calf’), Bunaq (Tim) *-iri*, Makasae (Tim) *-iti* ‘leg’

The correspondences which emerge from this set are not striking, but they are regular. Most interesting is the correspondence between the pTNG prenasalized stop, the pAP voiced stop, and pTim *T, which is reflected as /t/ in Bunaq, Makasae, and Makalero, /c/ in Fataluku, and /d/ in Oirata. Note that a correspondence between a prenasalized stop in pTNG and a voiced stop in pAP supports a hypothesis that pAP reflects a flip of the pTNG second person pronouns *ŋga ‘2SG’, *ŋgi ‘2PL’ to pAP third person pronouns *ga ‘3SG’, *gi ‘3PL’, respectively, although the correspondence here is alveolar and not velar.

Table 5: pTNG, pAP, and pTim sound correspondences

pTNG	pAP	pTim	examples
*n	*n	*n	eat, eye, woman, 1SG, 1PL
*m	*m	*m	die, ground, internal organ, breast, neck
*k	*k	Ø	die, leg, short, leaf
*nd	*d	*T	internal organ, fire
*t	*t	*t	dry, short, leg

Two more forms might be included in the twelve above, but they are somewhat problematic. The correspondence of ‘neck’ is based on two nasal phonemes and reflexes in just three of the nearly thirty TAP languages.

- (16) pTNG *kuma(n,ŋ)[V] (first syllable lost in some cases), Sawila (AP) *-maŋ*, Oirata (Tim), Fataluku (Tim) *mani* ‘neck’

The form for ‘lightning’ likewise has a very limited distribution, with similar-looking forms occurring in just three closely related AP languages. Moreover, the vowels in the pTNG form were determined in part on the basis of the Blagar, possibly making the pTNG artificially more similar to the AP languages than otherwise warranted.

- (17) pTNG *(mb, m)elak, Blagar (AP) *merax*, Retta (AP) *melak*, Kabola (AP) *mere?*, ‘lightning’

The pTNG form for ‘older sibling’ shows a striking correspondence with TAP languages, but this is a nursery form, and should be excluded from determinations of genealogical similarity.

- (18) pTNG *nan(a,i), pAP *nan(a), Bunaq (Tim) *nana* ‘older sibling’

The pTNG form for ‘to come’ is also strikingly similar to the pAP, but both the pTNG and the pAP may have their origins in the Proto-Malayo Polynesian *maRi, which is irregularly reflected as *ma* or *mai* in many Austronesian languages in the region: cf. Mambai (Timor) *ma*, Manggarai (Flores) *mai*.

- (19) pTNG *me-, pAP *mai ‘to come’

A further six forms were excluded because their correspondences were not regular. The form for ‘nose’ looks promising, but pTNG *nd should correspond with pAP *d and pTim *T, not *n.

- (20) pTNG *mundu, pAP *-mim, Oirata (Tim) *muni kain*, Fataluku (Tim) *mini* ‘nose’

The form for ‘excrement’ similarly looks promising, but pTNG *t should correspond with pAP *t not *s.

- (21) pTNG *ata, pAP *has, Fataluku (Tim) *aku*, Oirata (Tim) *atu* ‘excrement’

The pTNG form for ‘who’ looks similar to the Abui form *hanin* that was cited in Pawley (n.d.), but more recent research on Abui shows that ‘who’ is *maa*, and there is no word *hanin* in Abui. The AP languages Adang, Hamap, and Kabola, all quite closely related, show somewhat similar forms, but the lack of correspondence in the initial correspondence, combined with the limited geographic distribution, make these unlikely cognates.

- (22) pTNG *wani, Adang (AP) *ano*, Hamap (AP) *hano*, Kabola (AP) *hanado* ‘who’

A further two proposed cognates are simply not very similar in form to their putative TAP reflexes. The pTNG form *pululu ‘fly, flutter’ was originally considered cognate with Blagar (AP) *iriri*, *alili*, but our data show Blagar *liri*, and other cognates point to proto-Alor *liri. The competing form pAP *yira(n) has a wider distribution and was therefore reconstructed to pAP. Data from Timor languages suggest that perhaps *liri is older than previously assumed, but at any rate, the initial consonant from pTNG is only found in one TAP language, and none of the TAP languages show back vowels in this form. It seems much more likely that the resemblance between pTNG and the TAP languages is due to onomatopoeia.

- (23) pTNG *pululu ‘fly, flutter’, Blagar (AP) *liri*, Adang (AP) *lili*?, Klon (AP) *liir*, Kui (AP) *lir*, Abui (AP) *li*?, Kamang (AP) *lila*, Makasae (Tim) *riri*, Fataluku (Tim) *ipile*

Likewise, further data on pTNG reconstructions for ‘urine’ cast doubt on the purported cognacy with TAP languages. The pTNG *[si]si, *siti, *pisi ‘urine’ was originally considered cognate with Oirata (Tim) *iri* ‘urine, excrement’. The forms in the AP languages seem to be doublets with ‘water’, which is reconstructed as pAP *jira and pTim *ira. Although we have not established TAP correspondences for pTNG *s, there is insufficient formal similarity between the two reconstructions to retain them as cognate sets.

- (24) pTNG *[si]si, *siti, *pisi ‘urine’, Western Pantar (AP) *jir*, Blagar (AP) *ir*, Klon (AP) *wri*, Retta (AP) *vil*, Sawila (AP) *iripin* ‘urine’, Oirata (Tim) *iri* ‘urine, excrement’

In terms of lexicon, then, we are left with potential pTNG - TAP cognates and a few tentative sound correspondences (Table 5).

4. COMPARISON WITH INDIVIDUAL LANGUAGES

In the preceding section we examined evidence for a connection between TAP and TNG drawing on data from a top-down reconstruction of pTNG. Given that Pawley’s putative TNG contains some five hundred languages, and that little historical reconstruction work has been done for lower level subgroups, this pTNG reconstruction must be considered tentative. Hence, it is useful also to examine potential relationships of TAP directly with lower level subgroups. We focus here on four such families. The first, South Bird’s Head (SBH), is not actually included in Pawley’s TNG but was included in Wurm’s (1982) previous formulation of TNG. This classification is detailed in Voorhoeve (1975), who along with Stokhof (1975) argues for a somewhat distant (“subphylic”) connection between TAP and SBH.

The other three families considered here are all classified within Pawley's TNG. The Dani and Wissel Lakes families were part of the original core group of TNG languages proposed by Wurm et al. (1975). Their membership in TNG is likely quite secure. The other TNG family considered here is West Bomberai. Like SBH, West Bomberai was originally classified by Cowan (1957) as part of the West Papuan Phylum, but it was later reclassified as TNG and included as such by Pawley. Ross (2005) also includes West Bomberai within TNG based on pronominal evidence. In fact, Ross proposes a "West Trans New Guinea linkage" within TNG consisting of West Bomberai, Dani, Wissel Lakes, and TAP. All of these languages, including the Timor languages (but notably excluding Alor-Pantar) share an innovation whereby the pTNG first singular pronoun *na is replaced by *ani*. Ross (2005: 37) also notes that the TAP languages share with West Bomberai an innovative first-person plural form *bi (though this is an inclusive pronoun in TAP but an exclusive pronoun in West Bomberai).

In the following sub-sections we compare TAP languages to each of these four families in turn, while remaining agnostic as to the status of TAP vis-à-vis TNG. Since we lack robust reconstructions at the level of any of these families, we instead compare pAP reconstructions (Holton et al. 2012) to selected individual languages from each of these families.

4.1 SOUTH BIRD'S HEAD

The South Bird's Head family is here represented by Inanwatan (ISO 639-3 szp) and Kokoda (ISO 639-3 xod). The Inanwatan pronouns are given in Table 6. Like the pAP and pTNG pronoun sets, these show /a/ in the singulars and /i/ in the plurals, although the third person singular does not follow this pattern. These are similar to the pAP pronouns in reflecting *na '1SG' instead of *an. As in the TAP languages, the pTNG first person plural pronoun *ni (if indeed Inanwatan is a TNG language) has been assigned to the exclusive, and a new form has been innovated for the inclusive. The inclusive form in Inanwatan, however, is not cognate with the inclusive in pAP. Inanwatan is also different from TAP languages in distinguishing between masculine and feminine in the third person singular.

Table 6: Inanwatan pronouns (de Vries 2004: 27-29)

	subject	possessive prefix
1SG	náiti/nári	na-
2SG	áiti/ári	a-
3SG	ítigi (M) ítigo (F)	Ø
1PL.INC	dáiti	da-
1PL.EXC	níiti	ni-
2PL	íiti	i(da)-
3PL	ítiga	Ø

In the Inanwatan vocabulary, five forms stand out as potentially cognate with TAP.

(25) Comparison of TAP with Inanwatan (de Vries 2004)

- a. Inanwatan *ni-* ‘eat, drink, smoke’, pAP **nai* ‘eat, drink’
- b. Inanwatan *mo-*, pAP **mai* ‘to come’
- c. Inanwatan *ɽero*, pAP *-uar(i) ‘ear’
- d. Inanwatan *oro*, pAP *-ar ‘vagina’, proto-EasternTimor (exluding Bunaq) **aru*
- e. Inanwatan *durewo* ‘wing, bird’, pAP **dVl* ‘bird’

Again, the correspondence with the form ‘eat, drink’ is striking. The form for ‘to come’ is likely a loan from an Austronesian language. The other three correspondences look promising, although we see an *r* : *r* correspondence in (c) and (d), versus an *r* : *l* correspondence in (e).

The South Bird’s Head language Kokoda also shows several promising lexical similarities with TAP. Curiously, only one of these has the same meaning as those we identified from Inanwatan even though Inanwatan and Kokoda share 20% possible lexical correspondences (de Vries 2004: 133).

(26) Comparison of TAP with Kokoda (de Vries 2004)

- a. Kokoda *kɔ'tena*, pAP *-tok ‘belly, stomach’
- b. Kokoda *ʃeria*, pAP **jira*(n) ‘to fly’
- c. Kokoda *mɔe*, pAP **mai* ‘to come’
- d. Kokoda *ta'bai*, pTAP **bai* ‘pig’
- e. Kokoda *ʃira*, pAP **asir* ‘salt’

Note that the form for ‘salt’ may be a loan from an Austronesian language (cf. proto-Austronesian **qasiRa*).

4.2 DANI

The Dani family is here represented by Lower Grand Valley Dani (ISO 639-3 dni) for the pronouns and Western Dani (ISO 693-3 dnw) for the vocabulary. The Dani pronouns are given in Table 7. Like the pAP and pTNG pronouns, they have the paradigmatic vowels /a/ for singulars and /i/ for plurals, plus the use of /n/ for first person, which is why Ross (2005) suggested they might be related to the TAP languages. The Dani pronouns more closely match the reconstructed pAP pronouns than either match the pTNG pronouns, in that Dani also lacks a velar consonant in the second person forms (cf. Table 1). If Dani is indeed a TNG language, then we must also posit a flip between second and third person pronouns. Such a flip could constitute evidence of shared innovation between the two groups.

Table 7: Lower Grand Valley Dani pronouns (van der Stap 1966: 145-6)

	personal pronouns	possessive prefixes
1SG	an	n(a)-
2SG	hat	h(a)-
3SG	at	Ø-
1PL	nit	nin-
2PL	hit	hin-
3PL	it	in-

Curiously, Dani shows *an* for the independent pronoun and *n(a)-* for the pronominal prefix. The pAP 1SG pronouns (both the reconstructed prefix, and the various derived independent pronouns found in individual AP languages) reflect **na-*, like the pTNG **na*. The Timor languages, in contrast, reflect **an* in the 1SG. Donohue (p.c.) suggests that perhaps the pTNG reconstruction should instead be **an*, and that many TNG languages have independently leveled the pronominal paradigm so that all the singulars are of the shape *Ca*. Donohue suggests that this is a simpler explanation for the pronominal distributions than claiming independent changes of **na* > **an*.

In the vocabulary (Western) Dani shares a handful of look-alikes with the TAP languages. These are given below.

(27) Comparison of TAP with Western Dani (Purba et al. 1993)

- a. Western Dani *ji*, pAP **jira*, pTim **ira* ‘water’
- b. Western Dani *mugak* ‘ko banana’, pAP **mogol*, pTim **muKu* ‘banana’
- c. Western Dani *maluk*, proto-Alor (but not pAP) **makal* ‘bitter’

- d. Western Dani *nono* ‘what’, Adang (AP) *ano*, Hamap (AP) *hano*, Kabola (AP) *hanado* ‘who’
- e. Western Dani *o* ‘house’, Kui (AP) *ow*, Klon (AP) *əwi*

Similar terms for ‘water’ and ‘banana’ are widespread within the TAP languages, but the other look-alikes occur only in restricted geographic subset of the TAP languages, significantly increasing the probability of chance resemblance due to researcher bias. That is, with some 25 languages, there are bound to be chance resemblances with individual languages, so methodologically, we should restrict ourselves to comparing proto-language with proto-language, rather than comparing to individual daughter languages within Alor-Pantar.

4.3 WISSEL LAKES

The Wissel Lakes family is here represented by Ekari (ISO 639-3 *ekg*). The Ekari pronouns are listed in Table 8. As in pAP and pTNG, Ekari pronouns have the paradigmatic vowels /a/ for singulars and /i/ for plurals, plus the use of /n/ for first person. Like the Dani pronouns and the Timor pronouns, the Ekari pronouns show *ani* in the independent pronouns and *na-* in the prefixes. Like TAP and Dani, the Ekari pronouns show velar consonants in the second person, suggesting that if we accept the pTNG pronominal reconstructions (Ross 2005, but see caveat in section 4.1), then Ekari must also share an innovation with Dani and TAP of flipping the second and third person.

Table 8: Ekari pronouns (Drabbe 1952)

	free	object prefix
1SG	ani	na-
2SG	aki	ka-
3SG	okai _̃	e-
1DU	ina _̃ i	-
2DU	ika _̃ i	
3DU	okea _̃ i	
1PL	inii	ni-
2PL	ikii	ki-
3PL	okei _̃	e-

We identified six potential cognates in the vocabulary; these are listed in (28) below.

- (28) Comparison of TAP with Ekari (Steltenpool 1969)
- a. Ekari *nai* ‘eat, drink’, pAP **nai* ‘eat, drink’
 - b. Ekari *mei* ‘come’, pAP **mai* ‘come’
 - c. Ekari *maki* ‘land’, Teiwa (AP) *moʔoʔ*, Kaera (AP) *maxa*, Klon (AP) *məkεʔ*, pTim **muKa*
 - d. Ekari *menii* ‘give to him/her/them (irregular)’, pAP *-*ena*, pTim *-*inV* ‘to give’
 - e. Ekari *owaa* ‘house’, Kui (AP) *ow*, Klon (AP) *əwi*

The form for ‘eat, drink’ is striking. Although it is based on only a few phonemes, the match in form is exact, and the semantics are the same. A similar form is also reconstructed for pTNG (see Section 3). The form for ‘come’ is also quite similar, but in this case it is likely that both Ekari and TAP borrowed these forms from Austronesian sources (see discussion in Section 3). The form for ‘land’ is also striking. The other look-alikes in (28) match only in a subset of their phonemes (28d) or are only found in a geographical subset of the TAP languages (28e,f).

4.4 WEST BOMBERAI

In the West Bomberai languages, stronger lexical similarities to TAP languages emerge, and we can posit tentative sound correspondences. The West Bomberai family is composed of three languages: Iha (ISO 639-3 *ihp*), Baham (*bdw*) and Karas (*kgv*), with the latter of these thought to be more distantly related to the other two.

The Iha pronouns are given in Table 9. Iha shows /o/ in the first and second person singular and /i/ in the other pronouns, paralleling the /a/ - /i/ paradigms of pTNG and pAP. Like Dani, Ekari, and the Timor languages, the Iha first person singular pronoun is VC as opposed to the CV pronouns of Inanwatan, pTNG, and pAP. Iha also shows a similar metathesis in the first person inclusive *in* from pTNG **ni*. Like pTNG, Iha shows velar consonants in the second person, as opposed to the velar third person seen in pAP, suggesting that Iha did not share the proposed innovative flip of second and third person pronouns. On the other hand, one of the sound correspondences outlined below (Iha *k* : pAP Ø) suggests that perhaps Iha *ko* ‘2SG’ and *ki* ‘2PL’ correspond to pAP *(h)a- ‘2SG’ pAP *(h)i- ‘2PL’, respectively. The reconstruction of **h* in the second person pAP pronouns is based on only two languages (Teiwa and Western Pantar), and the other AP languages have vowel-initial second person pronouns, which matches with the Iha *k* : pAP Ø correspondence.

Table 9: Iha personal pronouns (Mark Donohue, p.c.)⁵

1SG	on
2SG	ko
3SG	mi
1PL.INC	mbi
1PL.EXC	in
2PL	ki
3PL	mi

We identified fifteen potential TAP cognates in the Iha vocabulary (Donohue, p.c.). The term for ‘arm, hand’ is potentially a loan from Malay *tan*. The form ‘eat’ has been reconstructed as pTNG *na- ‘eat, drink’. As mentioned in Section 3, the term for older sibling has been reconstructed as pTNG *nan(a,i), although this could be a nursery form. Note also that the form for ‘salt’ may be an Austronesian loan (cf. proto-Austronesian *qasiRa).

(29) Potential cognates between Iha and TAP

- a. Iha *nwV* ‘eat’, pAP *nai ‘eat, drink’
- b. Iha *tan*, pAP *-tan ‘arm/hand’
- c. Iha *nen* ‘older brother’, Iha *nan* ‘older sister’, pAP *nan(a) ‘elder sibling’
- d. Iha *wor*, pAP *-or, pTim *ula(?) ‘tail’
- e. Iha *kar*, pAP *-ar, pEastTimor (excluding Bunaq) *aru ‘vagina’
- f. Iha *wek*, pTAP *wai ‘blood’
- g. Iha *iħ*, pAP *is(i) ‘fruit’
- h. Iha *hira*, pAP *asir ‘salt’
- i. Iha *ne*, pAP *-ain(i,u), pTim *nei ‘name’
- j. Iha *jet*, pAP *jari ‘laugh’
- k. Iha *mħen*, pAP *mis ‘sit’
- l. Iha *mbjar*, Teiwa (AP) *jivar*, Nedebang (AP) *bar*, Kaera (AP) *ibar*, Western Pantar (AP) *jab:e*, Blagar (AP) *džabar*, Adang (AP) *bel* ‘dog’ (cf., pTim *Depar)
- m. Iha *nemehar*, Tw *masar* ‘man, male’
- n. Iha *wena* ‘honey’, cf. Nedebang *wani*, Western Pantar *wani*, Adang, Klon *wain*, Kui (ra)wan ‘bee’
- o. Iha *ja*, cf. Blagar *dže* ‘boat’ (AP *hai* not reconstructed but widespread in West)

Based on these 15 lexical correspondences, we can suggest possible sound correspondences. Note that the h:s correspondence of ‘sit’ and ‘man’ conflicts with s:s correspondence of ‘fruit’, and the t:r correspondence of ‘laugh’ conflicts with the t:t correspondence of ‘arm’ and the more widespread r:r correspondence. Without more examples, it is difficult to determine whether these conflicts are due to conditioned sound change or false cognates. We

posit only one conditioned correspondence, that of w:Ø before a back rounded vowel and w:w elsewhere. The reflex of pTNG *na ‘eat, drink’ as Iha *nowo/nawa* ‘eat’ suggests that the /w/ has been inserted in Iha rather than lost in pAP.

Table 10: Possible Iha : pAP sound correspondences

Iha	pAP	examples
r	r	tail, vagina, man, dog, salt
n	n	eat, name, arm, honey, 1SG
m	m	older sibling, sit, man,
w	Ø before /o/ w elsewhere	eat, tail blood, honey
k	Ø	vagina, blood
k	h	2SG, 2PL
h	s	man, salt
h̥	s	fruit, sit
mb	b	dog, 1PL.INC
j	dʒ	boat
j	j	laugh
t	r	laugh
t	t	arm

The West Bomberai language Baham also shows striking similarities to TAP languages. The Baham pronouns are given in Table 11. In the possessives, these pronouns show a first singular *ne*, a third singular *ka*, and a first plural *ni* that appear cognate to the corresponding pAP pronouns. Other pronouns appear innovative.

Table 11: Baham pronouns (Flassy et al. 1987)

	personal	possessive
1SG	anduu	ne
2SG	tow	te
3SG	kpawaw	ka
1PL	unduu	ni
2PL	kujuu	kiju
3PL	kinewat	kinewaat

The Baham vocabulary reveals fourteen potential TAP cognates. Six of these terms are also found in Iha, and three have been reconstructed for pTNG: pTNG *na- ‘eat, drink’, pTNG *inda ‘tree’, and pTNG *tukumba(C) ‘short’.

(30) Potential cognates between TAP and Baham (Flassy et al. 1987)

- a. Baham *nowa* ‘eat’, pAP *nai ‘eat, drink’
- b. Baham *adoq* ‘tree’, pAP *had(a), pTim *haTa ‘fire, wood’

- c. Baham *toqoop*, pAP *tuk ‘short’
- d. Baham *pkwujer*, pAP *-uar(i) ‘ear’
- e. Baham *kaar*, pAP *-ar, pEastTimor (excluding Bunaq) *aru ‘vagina’
- f. Baham *wijek*, pTAP *wai ‘blood’
- g. Baham *mungguo*, pAP *mogol, pTim *muKu ‘banana’
- h. Baham *wuor tare*, pAP *-or(a), pTim *ula(?) ‘tail’
- i. Baham *waar*, pAP *war, pTim *huar ‘stone’
- j. Baham *nie*, pAP *-ain(i,u), pTim *nei ‘name’
- k. Baham *meheen*, pAP *mis ‘sit’
- l. Baham *siira*, pAP *asir ‘salt’
- m. Baham *wawa*, cf., Tw *wow*, Nd *wowa*, Ke *wow* ‘mango’
- n. Baham *jambar*, Teiwa (AP) *jivar*, Nede bang (AP) *bar*, Kaera (AP) *ibar*, Western Pantar (AP) *jab:e*, Blagar (AP) *d̥abar*, Adang (AP) *bel* ‘dog’ (cf., pTim *Depar)

Once again, based on these 14 lexical correspondences we can suggest potential sound correspondences. Unsurprisingly, these correspondences are similar to the ones we propose for Iha, including a correspondence of pre-nasalized stops in Baham to voiced stops in pAP, although the Baham form for ‘tree’ (cf. TAP ‘fire, wood’) does not fit that trend.

Table 12: Possible Baham : pAP sound correspondences

Baham	pAP	examples
r	r	ear, vagina, tail, stone, salt, dog
k	Ø	ear, vagina, blood
k	h	3SG
w	Ø before /o/ w elsewhere	eat, ear, tail blood, mango, stone
n	n	eat, name, 1SG, 1PL
m	m	banana, sit
ŋg	g	banana
mb	b	dog
d	d	tree
Ø	h	tree
Ø	l	banana
j	j	dog
t	t	short
q	k	short
q	Ø	tree
h	s	sit
s	s	salt

The West Bomberai language Karas also shows several potential cognates with TAP languages, although information on Karas is more sparse than for Iha or Baham. In the

vocabulary (Donohue, p.c.), nine potential cognates were identified, six of which are also found in both Iha and Baham. Three of these are reconstructed for pTNG: *na- ‘eat, drink’, pTNG *me- ‘to come’, and pTNG *amu ‘breast’. The reasons for considering pTNG *me- ‘to come’ an Austronesian loan have been discussed in Section 3. As mentioned above, the item ‘arm, hand’ is potentially a Malay loan, and the term for ‘salt’ may also be a loan.

(31) Potential cognates between TAP and Karas

- a. Karas *nm* ‘eat’, pAP *nai ‘eat, drink’
- b. Karas *tan*, pAP *-tan ‘arm, hand’
- c. Karas *mej*, pAP *mai ‘to come’
- d. Karas *ʁun*, pAP *-or(a), pTim *ula(?) ‘tail’
- e. Karas *bal*, Teiwa (AP) *jivar*, Nede bang (AP) *bar*, Kaera (AP) *ibar*, Western Pantar (AP) *jab:e*, Blagar (AP) *dʒabar*, Adang (AP) *bel* ‘dog’ (cf., pTim *Depar)
- f. Karas *wat* ‘coconut’, pTAP *wat(a)
- g. Karas *i:n*, pAP *-ain(i,u), pTim *nei ‘name’
- h. Karas *sira*, pAP *asir ‘salt’
- i. Karas *am*, pAP *ham ‘breast’

We can establish tentative correspondences from these forms, although most correspondences occur only once in these data, and the final /n/ in Karas ‘tail’ is unexplained.

Table 13: Possible Karas : pAP sound correspondences

Karas	pAP	examples
n	n	eat, arm, name
m	m	come, breast
t	t	arm, coconut
r	r	tail, salt
n	Ø	tail
b	b	dog
l	r	dog
w	w	coconut
s	s	salt
Ø	h	breast

In the lexicon, then, the strongest correspondences are with West Bomberai languages, allowing us to posit some (very tentative) sound correspondences. In the pronouns, Iha shows an inclusive/exclusive distinction, with an exclusive pronoun that looks superficially similar to the reconstructed pAP inclusive pronoun *pi-. However, the sound correspondences suggest Iha mb : pAP p, so perhaps both forms are independently innovated, with the similarity in vowels due to analogy with other pronouns in the paradigm (i.e., plurals have the vowel /i/) and the similarity in consonants due to chance. An alternative explanation would rely on borrowing, which we return to in the following section.

5. DISCUSSION

We have considered three hypotheses regarding the wider genealogical affiliations of the TAP languages. We now return to the null hypothesis proposed in section 1 (that the TAP languages are a family-level isolate) and consider the strength of the evidence with regard to each of the proposals.

The pronominal evidence points much more clearly toward a link with TNG as opposed to NH. The TAP pronouns share with TNG a vowel grading /a/ vs. /i/ in the singular vs. plural, respectively. In addition, TNG second person pronouns correspond well with TAP third person pronouns, although this correspondence requires us to posit a semantic flip between second and third person forms. This flip renders the pronominal evidence much weaker than it otherwise might be. The primary trace of similarity between the TAP and NH pronouns lies in the TAP first person distributive form, which resembles the NH first person singular. It is of course possible that the TAP pronoun system has been influenced by both TNG and NH languages, as suggested by Donohue (2008).

In the lexicon, there is no evidence supporting a genealogical connection between TAP and NH languages. The lexical evidence for a link with TNG is more promising, and a few regular sound correspondences emerge, but a critical eye limits the number to twelve, so we cannot establish a robust connection. However, if we focus our attention just on the West Bomberai languages, the pronominal and lexical evidence looks more promising and warrants further investigation. It is possible that the TAP and Bomberai languages are related either via a deep genealogical connection or via a more casual contact relationship. If it is a genealogical relationship, it is not yet clear whether they are both part of TNG or whether they share a relationship independent of that family.

Having evaluated the three hypotheses put forward at the beginning of this paper, we find that the existing pronominal and lexical data do not support a clear genealogical relationship between the Timor-Alor-Pantar languages and any of the language families discussed here. We can definitively rule out a connection to North Halmaheran languages, but there is weak evidence pointing to a connection with the languages of the Bomberai peninsula. Regarding the lack of clear evidence for a connection with TNG more broadly, it may well be that the connection is so ancient as to be not readily detectable using the comparative method. The spread of TNG is conventionally linked to the development of agriculture in the New Guinea

highlands about 10,000 years ago (Bellwood 2001), with a westward spread somewhat later, perhaps around 6,000 BP (Pawley 1998). This would place any putative TAP-TNG genealogical connection at the upper limits of what is possible using the comparative method. However, linguistic approaches to dating based on lexical similarity suggest a time-depth of only 3500 years for TAP (Holman et al. 2011), well within the bounds of the comparative method. In this light the lack of clear lexical cognates is all the more striking.

Another possibility is that the weak signal linking TAP with Bomberai is the result not of an ancient genealogical connection, but rather of more recent contact. The West Bomberai groups, for example, have a history of slaving (Klamer et al. 2008: 109). It is possible that they took Timor-Alor-Pantar peoples as slaves at some point, and that this is the source of the connection between the two groups. More investigation of the social history of pre-Austronesian contact in East Nusantara is greatly needed.

In conclusion, it is likely that researchers who tend to support distant linguistic connections will find here some evidence to support a connection between TAP and Papuan languages spoken to the east, particularly the West Bomberai languages, while researchers who tend to doubt distant linguistic connections will cite insufficient evidence. We hope that the reconstruction of Timor-Alor-Pantar at the highest level, combined with new field research on the Bomberai languages, will eventually help clarify this question. Until additional data are brought forward to resolve these issues, Timor-Alor-Pantar should be considered a family-level isolate.

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ABBREVIATIONS

1	first person
2	second person
3	third person
Ab	Abui
ACC	accusative
ACT	actor
Bl	Blagar
CLF	classifier
DECL	declarative
DISTR	distributive
DU	dual
EXC	exclusive
F	feminine
INC	inclusive
IPFV	imperfective
Kl	Klon
M	masculine
N	neuter
Nd	Nedebang
NEG	negative
NC	noun class
NH	North Halmahera
NM	noun marker
OBJ	object
OBV	obviative
pAP	proto-Alor Pantar
PERF	perfective
PL	plural
pNH	proto-North Halmahera
POSS	possessive
PROG	progressive
pTim	proto-Timor
pTNG	proto-Trans New Guinea
SG	singular
SUBJ	subject
Sw	Sawila
TAP	Timor-Alor-Pantar
Tim	Timor
TNG	Trans New Guinea
Tw	Teiwa
UND	undergoer
We	Wersing
WP	Western Pantar

NOTES

¹ The extinct language of Tambora, known only from nineteenth century wordlists, was spoken some 650 km west of Pantar, and it is presumed to have been non-Austronesian (Donohue 2007a).

² Watuseke (1973) does not identify the language as Teiwa but merely refers to it as “a language of Pantar.” However, inspection of the data leave no doubt that this is Teiwa.

³ As originally formulated the Trans-New Guinea hypothesis linked Central and South New Guinea languages with the Finisterre-Huon languages based not on pronominal evidence but on lexical similarities (McElhanon & Voorhoeve 1970).

⁴ Donohue actually cites the form *gala as the reconstruction for pNH, rather than Wada’s *aker. Moreover, our pTAP reconstruction for ‘water’ is *jira, not *jar.

⁵ Flassy & Animung (1992) list *bi* for first-plural exclusive and *in* for inclusive, an apparent reversal of the forms found in Donohue’s word list. They also list *wat* rather than *mi* for third-person plural, while Donohue gives *wat* ‘friends’.

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