



R. Blust

Proto-Western Malayo-Polynesian vocatives

In: Bijdragen tot de Taal-, Land- en Volkenkunde 135 (1979), no: 2/3, Leiden, 205-251

**This PDF-file was downloaded from <http://www.kitlv-journals.nl>**

ROBERT BLUST

## PROTO-WESTERN MALAYO-POLYNESIAN VOCATIVES<sup>1</sup>

### *The initial problem*

1. In comparing the kinship terminology of Austronesian (AN) languages it is not unusual to find apparent cognates which differ in the presence of a synchronically unanalyzable initial or final segment that has thus far resisted historical explanation, as with Sediq *táma?*, but Thao *?á : ma?*, 'father'.<sup>2</sup> That Thao does not regularly reflect the sources of Sediq *t* (i.e. PAN \*C, \*t, \*T) as zero is clear from e.g. Thao *thá : qi?* < \*Caqi, 'feces', *tú : ru?* < \*telu, 'three'. Because it is representative of a large class of facts to be considered below, the preceding example may serve as a paradigm case for all those that follow in sect. 1; that is, in none of these cases is the explanation for such segmental disagreements to be sought in regular phonological change, nor — so far as the published sources indicate — in synchronic morphology. It will be convenient to refer to terms of the type Sediq *táma?* as long forms (LF) and to terms of the type Thao *?á : ma?* as short forms (SF).

Since LF and SF kinship terms can be reconstructed at an equivalent historical level, the explanation of the segments that distinguish them poses a problem of greater than ordinary interest for systematic reconstruction. As will become clear, these segments fall into two classes: 1. a class for which a unitary explanation is empirically motivated, and 2. a smaller but nonetheless substantial residue. This paper is concerned exclusively with members of the first class. The full range of these segments appears in Table 1 (see page 206).

---

ROBERT BLUST, who majored in English at the University of California and took his B.A. in anthropology and Ph.D. in linguistics at the University of Hawaii, is at present Assistant Professor in the Department of Languages and Cultures of Southeast Asia and Oceania at Leiden. His main field of interest is comparative Austronesian linguistics, and major publications are 'Proto-Austronesian addenda', *Oceanic Linguistics* 9 (1970): 104-62, and 'The Proto-Oceanic palatals', Memoir 43, 1978, The Polynesian Society, Auckland, New Zealand. Dr. Blust's current address is: Talen en Culturen Z.O. Azië, Postbus 9507, 2300 RA Leiden, Netherlands.

TABLE 1

Comparative data that support the reconstruction of kinship terms which differ irregularly in the presence of an initial or final phoneme. When not identical with the meaning of its prototype the meaning of a reflex is indicated by letter code, as explained at the end of the table.<sup>3</sup>

	*ama Fa	*ina Mo	*a(m)pu, etc. <sup>4</sup> ancestor, GrPa/GrCh	*ua(n)ji <sup>5</sup> Yo    Sb			
<i>Formosa</i>							
	Tsou	amó	inó				
	Thao	ʔá : maʔ	ʔí : naʔ	ʔá : puʔ	A		
<i>Philippines</i>							
	Yami	amaʔ	inaʔ	apuʔ	B	tsi-waʔiʔ	C
	Isneg	amā	inā	appó	A	waxí	D
	Tagalog	amá	iná	apó	B		
				impó	E		
	Samal					si-ali	C
<i>Sulawesi</i>							
	Bolaang Mongondow			ompu		aiai	C
	Mori	ama	ina			uai	C
	Buginese	ama	ina			a(n)ri	C
<i>Borneo</i>							
	Pa' Dalih			m-upu-n	B		
	Matu	amah	inah	ipo	F <sup>6</sup>		
	Ma'anyan	amah	ineh	umpu	B		
	Dusun Deyah			ompu	B		
	Ngaju-Dayak	ama	G inæ	empo	H	andi	C
	Tunjung					gari-n	C
<i>Malay Peninsula</i>							
	Malay			ěmpu	I		
<i>Sumatra</i>							
	Simalur	ama	ina	ambo, ambu	J	axi	C
	Nias	ama	ina			axi	C
	Mentawai		ina			bagi	C



<i>Madagascar</i>							
	Merina					tumpu	S
<i>Palau</i>							
	Palauan	ʔe-dám		ʔe-díl			
<i>South Halmahera</i>							
	Buli	hma	T	hñē			
<i>West New Guinea</i>							
	Windses					tapu	O
<i>Melanesia</i>							
	Wogeo	tama	U	tina	V	tubu	J
	Gitua	tama	U	tina	V		tazi
	Tanga	tema		tina		tibu, tubu	A
	Raluana	tama (-na)		tina (-na)		täbu (-na)	O
	Nali	tama	U	tina	V	tubu	tai (-na) W
<i>Fiji and Polynesia</i>							
	Fijian	tama	U	tina	V	i tubutubu	X taci
	Tongan					tupu-ʔaŋa	Y tehi-na
	Maori					tipu-a,	tei-na
						tupu-a	Z

---

2. \*-ŋ                      \*amaŋ                      \*inaŋ

---

<i>Philippines</i>							
	Tagalog	amaŋ	AA	inaŋ			
<i>Sulawesi</i>							
	Sangir	amaŋ <sup>12</sup>		inaŋ <sup>12</sup>		ompuŋ,	S
	Buginese			inaŋ <sup>13</sup>		upuŋ	Y
<i>Borneo</i>							
	Ribun	maŋ					
	Sadong	amaŋ					
	Siang	amaŋ	AB	inaŋ	AC		
	Katingan						ariŋ
	Banjarese						adiŋ C
<i>Malay Peninsula</i>							
	Malay			inaŋ	AD		

3. *-q	*amaq	*inaq	*a(m)puq, etc.	*ua(n)jiq
<i>Philippines</i>				
Atta	ammo : ?	inno : ?		
Palawan Batak		?ina?		?ari? C
Cebuano Bisayan			umpú? A	
Mansaka	?ama?	?ina?		
Subanun	gama?	gina?		
Samal	amma?			
<i>Sulawesi</i>				
Bolaang Mongondow	ama?	ina?		
Buginese			əppu? O	
<i>Borneo</i>				
Minansut	áma?	ína?		ádi? C
Pa' Dalih			təpu? A	
Lundu				adi? C
Dusun Malang				ani? C
<i>Java-Bali-Lombok</i>				
Sasak	ama?	ina?	p-apu? O	adi? C

4. *-y	*amay	*inay	*a(m)puy, etc.
<i>Philippines</i>			
Casiguran Dumagat	amay AB		
Tagalog	amáy	ináy	
Palawan Batak	?amáy-an AE		
Binukid	?amay	?inay	
<i>Sulawesi</i>			
Western Toraja		ine	
Mori		ine	
<i>Borneo</i>			
Long Atip			puy AF <sup>14</sup>
Dusun Malang	amai	inai	
Siang	tamai	tinai	
<i>Lesser Sundas</i>			
Manggarai		ine	
Riung	ame	ine	
Ngadha	p-ame AG	p-ine AH	



*Mergui Archipelago*

Moken aka AI

*Java-Bali-Lombok*

Sundanese aŋkaŋ AM

Javanese kakaŋ AI

Sasak kaka? AI

*Lesser Sundas*

Bima s-a?e AI

Manggarai ka?e

Solorese kaka

*Pacific*Proto-Oceanic \*kaka AN<sup>18</sup>


---

6. *l-	*laki	*aki
	GrFa	GrFa

---

*Formosa*

Sediq b-áki?

Tsou aki?i

Ami f-aki?

*Philippines*Yami akai?<sup>19</sup>

Isneg akáy

Pangasinan laki AO

Hanunóo laki

*Borneo*

Timugon Murut aki

Iban aki

Delang aŋki AP

*Java-Bali-Lombok*

Javanese aki-aki AQ

Balinese k-aki

Sasak laki? AR k-aki AO

*Lesser Sundas*

Atoni na?i

## KEY TO THE LETTER CODE

A : GrPa	X : origin; Pa, GrPa
B : GrCh	Y : ancestor
C : YoSb	Z : goblin, demon; one versed in magic arts
D : Br, Si, relative	AA : elder person
E : GrMo	AB : PaBr
F : GrPa (ref)	AC : PaSi
G : uncle (own uncle, as opp. s.o. else's uncle)	AD : duenna; governess of an un- married girl of high rank
H : SpPa	AE : FaBr
I : master; master-craftsman	AF : GrPa (add)
J : ancestor, GrPa	AG : PaBr (ref)
K : GrFa, GrSo	AH : PaSi (ref)
L : ancestral founder of a patrilineage	AI : ElSb
M : Fa, FaBr; lineal male of first ascending generation	AJ : PaElSb
N : Mo, MoSi; woman, wife; female (animals)	AK : elder
O : GrPa, GrCh	AL : ElBr, FaElBrSo, MoElSiSo, FaFaElBrSoSo, FaMoElSiSoSo (ms), ElSi, ElSiHu (followed by <i>doli</i> ), FaFaYoSi, FaFaElSi (ws)
P :    Sb	AM : ElBr
Q : ancestor, GrPa, GrCh; ruler, sovereign	AN : El    Sb (voc)
R : GrFa	AO : GrFa, grand-uncle
S : lord, master; owner	AP : PaPaPa (ms)
T : Fa, FaBr	AQ : old man
U : Fa, FaBr, MoSiHu	AR : GrGrFa
V : Mo, MoSi, FaBrWi	
W : XSb (i.e. sibling of the opposite sex)	

As can be seen, then, in addition to \*ama, 'father', and \*ina, 'mother', cognate sets with a wide geographical distribution also require the reconstruction of \*tama, \*tina, \*amaβ, \*inaβ, \*amaq, \*inaq and \*amay, \*inay. Similarly, next to \*a(m)pu, \*e(m)pu, \*i(m)pu, \*u(m)pu, 'ancestor; grandparent/grandchild (recipr.)', it is necessary to posit a corresponding series with \*t-, \*-q and \*-y, and next to \*ua(n)ji, 'younger sibling of the same sex', it is necessary to posit a corresponding series with \*t- and \*-q. Because only one instance of the word for 'grandparent/grandchild' and only two instances (in closely related languages) of the word for 'younger sibling of the same sex' have been noted with -β, however,<sup>20</sup> the reconstruction of \*a(m)puβ, etc. and of \*ua(n)jiβ cannot (yet) be supported by comparative evidence (but

see fn. 37). Moreover, since \*-i and \*-iy presumably would be indistinguishable, given the characteristic morpheme structure of AN languages, the addition of \*-y to \*ua(n)ji is unattested. Finally, although there is no known comparative evidence of t-forms with the words for 'elder sibling of the same sex' and 'grandfather', these terms exhibit other, apparently idiosyncratic relationships.

In summary, the *prima facie* comparative evidence indicates at least six archetypal sets of LF kinship terms, of which the first four are distinguished from the corresponding short forms (and from each other) by a productive element, while the last two are not. Since only one of these sets has previously been reconstructed on the basis of a well-supported argument (and then only in part),<sup>21</sup> our initial problem is how to explain the relationships among the partially similar, partially different forms that compose them.

### *History of research*

2. Before attempting to shed light on the interrelationships of the above terms and of others still to be considered, it will be worthwhile to review briefly the history of comparative linguistic research as it touches on the questions we have raised.

Most observations on discrepant segments in kinship terms concern the t-initial forms (hereafter 't-forms'). The earliest known observation of this kind was made by Codrington (1885) who, in discussing vocabulary shared by the languages of Melanesia with those of Indonesia, noted (p. 67) that, "Another prevalent word in the Malay archipelago is *ama*, which may probably be the same with the common Melanesian *tama*, which is common also in the Gulf of Papua, New Guinea. The example of Mota may probably stand for other languages; *mama* is the vocative, *tama* the common noun: yet *mama* is used also as a common noun, though never quite as *tama* is. They will say *mama inau* for 'my father', but never suffix a Pronoun, as in *tamak*."

Codrington's principal source for the languages of 'the Malay archipelago' was Wallace (1869). Although the word for 'father' is included in the word-lists in the Appendix to Wallace's celebrated book, none of the forms cited there from some 33 languages happens to reflect \**tama*. As a result Codrington evidently was left with the impression that t-forms are restricted to the AN languages of Oceania.

A similar view is implicit in Kern's (1886) comparison of Fijian *taci*, 'younger sibling of the same sex', with vowel-initial forms in Indonesia such as Malay *adek*, Old Javanese *ari*, 'younger sibling', and this view

emerges explicitly in his remark (p. 75) that the *t* of *taci* is 'characteristic' of Fijian and Polynesian. While admitting his ignorance of comparative evidence that could help to illuminate the history of this putatively distinguishing feature, Kern nonetheless permitted himself the speculation that the consonant in question might be an old article. He further surmised that the labial onset in some eastern Indonesian cognates (Leti *wari*, Buru *wai*, central Ceram *wali*, Kei *wariŋ*, Roti *fadi*) derives from the same element that gave rise to the personal article *u* found in certain of the languages of Sulawesi, as Tombulu and Sangir. By way of footnote to the Kei term *wariŋ*, Kern added that a 'closing nasal' *ŋ* also appears in other kinship terms in various languages of Indonesia, as Sangir *i amanŋ*, 'father', Javanese *kakanŋ*, 'elder sibling', Malay *indunŋ*, Makasarese *anronŋ*, and concluded — somewhat cryptically — that Samoan *tamā*, *tinā* also suggest, because of the length, older forms *\*tamaŋ*, *\*tinaŋ*.<sup>22</sup>

It will become clear as we proceed that three of Kern's suggestions fail to accord with the broader comparative picture, but that the fourth (no. 4 below) — though unelaborated — provides a suggestive lead for relating certain phenomena that were not previously seen to be connected. For convenience of later reference these proposals can be summarized as

1. the initial consonant in Fijian *taci*, *tama*, *tina*, etc. is an 'old article';
2. the labial onset in Leti *wari*, etc. *Yo* || *Sb* reflects a 'personal article' *\*u*;
3. Kei *wariŋ* contains a 'closing nasal' *ŋ* that is found in other kinship terms among many of the languages of Indonesia;
4. the otherwise unexplained long vowel in Samoan *tamā*, *tinā* points to earlier forms *\*tamaŋ*, *\*tinaŋ*.

Kern's view that a fossilized article *\*t* is concealed in Fijian *taci*, *tama*, *tina* and cognate terms in other languages of Melanesia and Polynesia was reaffirmed by Brandstetter (1916),<sup>23</sup> who maintained (p. 85) that "In *rama*, *tama* and *zama* the articles *ra*, *ta*, and *i* have coalesced with the word *ama*". Although little direct evidence is offered in support of an article *ra* (said to be an honorific particle), *zama* — taken from Malagasy — clearly reflects *\*ama* plus the well-attested personal article *\*i*. Curiously enough, however, no evidence at all is given in support of an article *ta*.

Ray (1926), comparing the vocabulary of 'Melanesian' languages

with the vocabulary that Brandstetter called 'Original Indonesian', concluded (p. 36) that in the AN languages of Melanesia "The words for 'mother' and 'father' have the prefixed article, as in IN". As evidence for this claim he cites only the passage quoted above from Brandstetter (Blagden trans. p. 85, original essay § 44).

In his classic reconstruction of the sound system of Proto-Austronesian, Dempwolff (1934-38) posited a number of kinship terms, among them \*ama, 'father', \*ina, 'mother', \*e(m)pu, 'grandparent/grandchild', \*(tT)umpu, 'ancestor; sir', \*a(n)ji, \*qa(n)ji,<sup>24</sup> 'younger sibling', and \*kaka, 'elder sibling'. Although he reconstructed both vowel-initial forms and t-initial forms of the word for 'grandparent/grandchild' (\*e(m)pu, \*(tT)umpu), Dempwolff segmented the Oceanic reflexes of \*ama and \*ina (Fijian *t-ama*, *t-ina*, etc.) without raising the possibility that they derive from reconstructible LF terms parallel to \*(tT)umpu.<sup>25</sup> Like his predecessors, then, Dempwolff failed to specify the relationship between LF and SF kinship terms differing in t-. In similar fashion he cites Javanese *r-ama*, 'father', Merina *r-eni*, 'mother', with a hyphen marking the boundary of comparable material rather than any clearly understood morpheme division.

A few years later the reconstructions \*t-ama, \*t-ina and \*t-ari were given by Capell (1943 : 14, *passim*) as 'Indonesian' (= Proto-Austronesian) prototypes of related forms in certain of the AN languages of New Guinea. Capell does not comment on the morphology of these words, nor on his decision to attribute them to a language that was ancestral to the languages of Indonesia.<sup>26</sup>

Dyen (1953 : 22 and 1965 : 292) and more recently Dahl (1976 : 38, 70) segmented the initial *t* in Tongan *t-ama?-i*, 'father', and in the word for 'mother' in various of the AN languages of Formosa, but added no further explanation of the composition of these forms.

Finally, in an earlier paper (Blust 1970 : 127) I subsumed Malay *inaŋ*, 'duenna; governess of an unmarried girl of high rank', Iban *inaŋ*, 'rear (animals), nurse (children)', Tagalog *inán*, 'mother', under a reconstruction \*i(nN)aŋ, 'mother', but pointed out (fn. 108) that this form was "almost certainly \*ina plus \*ŋ". It was further noted that Hanunóo *?ina* (ref), *?inán* (voc), 'mother', and *?áma* (ref), *?amáŋ* (voc), 'father', "raise the possibility that \*i(nN)aŋ was a vocative form of \*ina".

It can now be shown that the foregoing interpretation of \*i(nN)aŋ was essentially correct, and that the further consideration of vocative forms in AN languages opens the way to a plethora of still unexplored

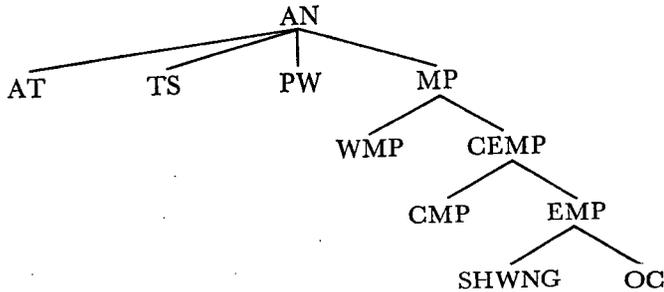
comparative data, of which the material cited in Table 1 is only a part.

*The proposed solution*

3.0. Because it will determine the level of assignment of various reconstructions considered in greater detail below, it will be helpful at this point to state a subgrouping hypothesis for the AN language family that has been advanced and partially justified elsewhere (Blust 1977a). The family tree diagram which represents this classification appears in Figure 1:

FIGURE 1

A subgrouping of the Austronesian languages based on the reconstruction of the Proto-Austronesian pronouns and their evolution



AT : Atayalic. Formosa.

TS : Tsouic. Formosa.

PW : Paiwanic. Formosa.

MP : Malayo-Polynesian. All non-Formosan AN languages.

WMP : Western Malayo-Polynesian. The MP languages of the Philippines and western Indonesia, including Chamorro, Palauan, Chamic and Malagasy.

CEMP : Central-Eastern Malayo-Polynesian. The languages of the CMP and EMP groups.

CMP : Central Malayo-Polynesian. The MP languages of the Lesser Sunda islands east of the Bima-Sumba group, and of the southern and central Moluccas (including at least some of the languages of the Sula archipelago).

EMP : Eastern Malayo-Polynesian. The MP languages of the South Halmahera-West New Guinea group and of the Pacific region.

SHWNG : South Halmahera-West New Guinea. The MP languages of Halmahera, Sarera (formerly Geelvink) Bay as far as the Mamberamo river, and of the Raja Ampat islands (Waigeo, Salawati, Batanta, Misool), together with their satellites (Gebe, etc.). There is some evidence that the AN languages of the Bomberai peninsula are members (probably in a first-order subgroup) of the SHWNG group.

OC : Oceanic. The MP languages of Melanesia, Micronesia and Polynesia except as stated elsewhere.

NB : The position of Yapese and of the languages of the Aru islands remains unclear.

3.1. As seen in the preceding section, in comparing LF and SF kinship terms most attention has been directed to the comparison of vowel-initial forms with t-initial forms. There are good reasons why this should be the case. First, both types of forms enjoy a particularly wide distribution (see Table 1). Second, a relatively large number of terms (Fa, Mo, GrPa/GrCh, Yo || Sb) occur in both forms.

Perhaps the first observation that should be made about t-forms is that, despite the impression given by some of the early writers (as Codrington 1885),<sup>27</sup> these are not confined to the Oceanic languages. On the contrary, apart from the northern and central Philippines and the chain of islands extending from Sumatra through the Lesser Sundas, they are found in virtually every part of the AN speech area (Formosa, the southern Philippines, Sulawesi,<sup>28</sup> Borneo, Madagascar, Palau, the central Moluccas (see below), South Halmahera-West New Guinea, Melanesia, Micronesia, Polynesia). Given the subgrouping assumptions adopted above, it thus seems clear that vowel-initial forms and t-initial forms must be attributed to Proto-Austronesian and to various descendant proto-languages as coexistent terms. What, then, was the relationship between these reconstructed types?

Most attested languages exhibit a reflex of only the vowel-initial form or only the t-initial form of any given kinship term. In such cases we lack a synchronic basis for morphological analysis. It might nonetheless be possible to isolate a consistent difference of meaning between LF and SF kinship terms in the comparative evidence, and thereby determine the relationship of types on a comparative basis. While careful comparison clearly establishes the feasibility of this approach (as will be seen below), in a few languages we also have access to a more direct kind of information.

In several of the languages of Formosa forms of reference are distinguished from forms of address by a prefix *ta-* or its equivalent, with morphophonemic changes evidently contingent on the resulting vowel sequence. Thus Puyuma as reported by Ferrell (1969) shows the following forms for 'father' and 'mother':

?ama? (add)	?iná? (add)
təmamá? (ref)	ta'ína? (ref),

to which *imu*, *təmu'án*, 'grandparent, ancestor', should probably be added, though the glosses given are identical.<sup>29</sup> It is noteworthy that Puyuma *wadi?*, 'younger sibling', is cited without a corresponding t-form.

Although Ferrell lists Paiwan *káma?*, 'father', *kína?*, 'mother', in his

1969 comparative study, his more recent draft dictionary (1970) provides considerably more detailed information on these terms. In the latter work we find *ama*, 'father!', *ina*, 'mother!' (i.e. vocative forms), and the two contrasted reference terms *k-ama*, 'father', *tj-ama*, 'father (familiar, to child)', *k-ina*, 'mother', *tja-ina*, 'your mother (used in addressing children)'. That the *tj*-forms are syntactically distinct from the *k*-forms is evidenced by the frame

inu a su kama	where is your	inu a su kina	where is your
inu a ti tjama	father?	inu a ti tjaina	mother?
(but not *inu a su tjama)		(but not *inu a su tjaina).	

So far as the available evidence permits us to determine, then, the *tj*-forms appear to cooccur with the marker of personal nouns (*ti*), and are understood as proper names (hence the anomaly of the possessive construction with *su*, 'your').

Similarly, Tsuchida (1976 : 134) lists Budai Rukai:

Fa	Mo
amáa (add)	ináa (add)
t-áma (ref)	t-ína (ref),

and Li (1977) gives the following Rukai dialect forms:

	Fa	Mo
Budai :	ama (add)	ina (add)
	t-áma (ref)	t-ína (ref)
Tanan :	n-amá (add)	na-ina (add)
	t-amá (ref)	t-iná (ref).

Whatever additional details might prove to be inferable for Proto-Austronesian once better descriptive materials are available for more languages, one distinction already emerges clearly from a consideration of the Puyuma, Paiwan and Rukai parent terms: the vowel-initial forms were inherently vocative, while the *t*-initial forms contained a prefix \**ta*- which was at least referential, and perhaps further served to derive generic proper names ('Dad', 'Mom', etc.) from basic kinship terms. Given the geographical proximity and probable subgrouping relationship of Puyuma, Paiwan and Rukai, we would not, of course, wish to attribute such a distinction to Proto-Austronesian unless it were also suggested by the evidence of other, distantly related languages. Fortu-

nately such evidence is to hand from many of the languages of Borneo, though the fact is hardly apparent from the major published source of comparative material for this area (Ray 1913). For convenience of reference the essential information appears in Table 2:

TABLE 2

Forms of address/vocatives (preceding colon) and forms of reference (following colon) of the words for 'father', 'mother', 'grandparent/grandchild' and 'younger sibling' in various languages of Borneo<sup>30</sup>

	Fa	Mo	GrPa/GrCh	YoSb
Kadazan	ama : tama	ina : tina		tadi
Bario Kelabit	tama? : tətaməh	sina? : təsinəh	təpu? : (tə)təpuh	kənanak
Long Wat	ama? : tamən	ina? : tinən	akəy : ukun	padi?
Dalat	apa? : tama	ma? : tina	apa? : ayəɟ, ma? : ayəɟ	tadəy
Long Atip	amay : taman	inay : hinan	puy : səpuk	harin
Long Merigam	ma? : tamən	na? : tinən	di? : təpun	padi?
Batu Belah	ama? : tamah	ina? : tinah	sadi?	padi? umi?
Narum	pa? : tamah	ma? : tinah	(ni)ni?	tadəy
Long Dunin	amay : tamən	inay : sinən	uko	sarin

It can be seen in Table 2 that many of the languages of Borneo distinguish terms of reference from terms of address in at least the words for 'father' and 'mother' by (among other things) the addition of a prefix *t-* in the reference term. Assuming the two affixes to be the same, Bario Kelabit *tətaməh*, 'father (ref)', *təsinəh*, 'mother (ref)', appear to contain a historically double layer of referential morphology. Together with the Puyuma, Paiwan and Rukai evidence discussed above, these observations would thus appear to indicate an original referential prefix \**ta-*. Absorption of the affixal vowel by the first root vowel evidently occurred in both words everywhere outside Formosa. Within Formosa contraction of the sequence of like vowels has occurred in the word for 'father', but the sequence of unlike vowels in the word for 'mother' has been retained in some languages.

Vowel-initial and *t*-initial forms of the words for 'father' and 'mother' also coexist in some of the languages of eastern Indonesia, where again the *t*-forms are contrastively referential or, as in Paiwan, are used as proper names. Thus Buruese *ina(n)*, 'mother', *tina*, 'mother; form of address where a woman is called by the name of her eldest child,

whether male or female, plus the word *tina*: Kupe *tina*, "Kupe's mother", etc.', evidently shows the use of t-forms as teknonyms.<sup>31</sup> Similarly, Buli *hma* (< \**tama*), 'father', *ya-hma-k*, 'my father', etc., next to *mama*, 'father', *mamae*, *mamo*, 'father!', and Numfor *kěma*, 'father (ref)', *mam(i)*, 'father',<sup>32</sup> *sna* (< \**tina*), 'mother (ref)', *ina* (archaic for *nāni*), 'mother (as addressed or called by a child)', clearly reveals a correlation between vowel-initial forms as terms of address (or vocatives), and t-forms as terms of reference.

Perhaps most surprising of all, in view of the common belief that Oceanic languages reflect only \**tama*, \**tina*, is the discovery that vowel-initial forms of the words for 'father' and 'mother' also persisted in Proto-Oceanic. This assumption, at least, offers the simplest available explanation for the appearance of Motu *mama*, 'child's term of address to his father', *tama*, 'father', *ina*, 'address of child to its mother', *sina*, 'mother', Nauna, Penchal (Admiralties) *ina* (add), *tina-* (ref), 'mother', and apparently of Port Sandwich (New Hebrides) *ina*, Lenakel *in-*, 'mother'.<sup>33</sup>

Finally, in a number of languages reflexes of \**ina* refer not only to human mothers but also to female animals, as with Sasak *ina*, 'female animal' (*ina?*, 'mother'), Roti *ina*, 'woman, mother, mother's sister, wife; female (animals)'. If a language reflects both \**ina* and \**tina* and applies one of the terms to female animals, however, it appears always to be the t-form which is so applied. This is attested, for example, in Malay *inaŋ*, 'duenna; governess of an unmarried girl of high rank', *bě-tina*, 'female (insulting when used of human beings; of animals it is always correct)', Mukah *ina* (add), *tina* (ref), 'mother', *tina*, 'female (animals)', Uma *ina?*, 'mother', *tina*, 'mother; female (animals)', Sangir *inaŋ*, 'mother', *mě-tina*, 'barren (of pigs and other animals)', and in Motu *ina*, 'address of a child to its mother', *sina*, 'mother; female pig'.<sup>34</sup> Since in these cases a vocative usage or form of address is inherently less probable than a referential usage, the terms for 'female (animals)' can be taken as additional support for the assumption that t-forms were originally referential. Assuming the validity of this conclusion, the personal article \**i* or \**si* which not infrequently occurs in reflexes of vowel-initial forms (Ratahan *y-amaŋ*, Bantik *y-ama?*, Tarakan *i-ama?*, 'father', Samal *si-ali*, 'younger sibling', Gorontalo *ti-amo*, 'father', *ti-ilo*, 'mother', and probably Siraya *s-aka*, Bima *s-a?e*, 'elder sibling', Long Dunin *s-arin*, 'younger sibling', Singhi *s-ama*, 'father', etc.) presumably was earlier restricted to t-forms (as in Paiwan *ti tj-ama*, *ti tja-ina*).<sup>35</sup>

In summary, the PAN t-form paradigm reconstructed to account for the data of sect. 3.1. and its evolution in PMP and PWMP appears in Figure 2:

FIGURE 2

The Proto-Austronesian t-form paradigm and its development in Proto-Malayo-Polynesian and Proto-Western-Malayo-Polynesian<sup>36</sup>

PAN		
Fa	Mo	GrPa/GrCh
ama (add)	ina (add)	a(m)pu, etc. (add)
(si) ta-ama (ref)	(si) ta-ina (ref)	ta-a(m)pu, etc. (ref)
PMP, PWMP		
ama (add)	ina (add)	a(m)pu, etc. (add)
(si) t-ama (ref)	(si) t-ina (ref)	t-a(m)pu, etc. (ref)

3.2. The next set of forms in Table 1 involves the suffixation of a kinship term (usually the word for 'father' or 'mother') with \*-ŋ. Once again, the published glosses shed little light on the distinguishing element. Where a language contains a reflex both of the vowel-initial form and of the t-initial form the two either are given as intradialectal or interdialectal equivalents (Tagalog *iná*, *inán*; Buginese *ina*, *inán*), or else exhibit an idiosyncratic semantic relationship (Malay *bě-tina*, *inán*). Malay *adín*, 'younger sibling (vocative of *adek* found only in Malayo-Javanese romance)', however, suggests that \*-ŋ marked the vocative. Moreover, as noted earlier, the appearance of Hanunóo *?áma?* (ref), *?amán* (voc), 'father', *?ína?* (ref), *?inán* (voc), 'mother', also supports the inference that \*-ŋ had a vocative function. This inference can now be strengthened and amplified through comparison with Casiguran Dumagat *áma* (ref), *amén* (voc), 'father', *ína* (ref), *inén* (voc), 'mother', and Toba Batak (Warneck 1977) *ama* (ref), *amán* (voc), 'father', *ina* (ref), *inán* (voc), 'mother', for in all three languages the vocative of the parent terms is formed by the same double process of suffixation and accent shift, an agreement that is not likely to be due to accident.<sup>37</sup>

As observed by Brandstetter (1916:98), however, some languages use accent shift alone to mark the vocative: Sangir *aman* (ref), *amán* (voc), 'father', Gorontalo *naana* (ref), *naná* (voc), Nias, Bima *ina* (ref), *iná* (voc), 'mother'.<sup>38</sup> A redundant accentual difference of the

same kind appears in two of the Formosan languages noted earlier (Puyuma, Budai Rukai as reported by Tsuchida). Finally, the effects of accent shift may perhaps also be seen in the loss of initial vowels in some vocative forms, as with Malay *adek* (ref), *dek* (voc), Banjarese *adiŋ* (ref), *diŋ* (voc), 'younger sibling', Long Merigam *tamən* (ref), *ma?* (add), 'father', *tinən* (ref), *na?* (add), 'mother'. There is thus a distinct possibility that suffixation with \*-ŋ and accent shift were independent vocative-marking devices in Proto-Western Malayo-Polynesian, and that in some languages their reflexes have come to be inseparably combined.

Given the above facts and the further observation that distinctive accent cooccurs with another vocative suffix in Toba Batak *angi-á* (to be discussed below), it will be assumed that accent shift originally occurred with all vocative suffixes. We reconstruct the following paradigm for Proto-Western Malayo-Polynesian, then, leaving open the possibility that accent shift could apply to unaffixed roots, as well as the possibility that the vocative-marking device or devices in question may have applied to some roots other than those listed here (as \*a(m)pu, etc.):

FIGURE 3

The Proto-Western Malayo-Polynesian vocative paradigm in \*-ŋ plus accent shift

Fa	Mo	Yo    Sb	El    Sb
ama (add)	ina (add)	ua(n)ji (add)	aka (add)
amá-ŋ (voc)	iná-ŋ (voc)	ua(n)jí-ŋ (voc)	aká-ŋ (voc)

3.3. Another set of forms which shares a partial resemblance to the simple root is distinguished from it by the appearance of \*-q. As with the previous examples, the meaning of this element is not evident from the material in Table 1. However, in a number of the languages of Sarawak the reflex of \*-q serves to distinguish (often redundantly) the form of address/vocative from the form of reference, as seen in Table 3 next page.

A similar function has been reported for -? in at least one of the languages of South Sulawesi: Sa'dan *adi* (ref), *adi-?* (voc), YoSb, *kaka* (ref), *kaka-?* (voc), ElSb,<sup>39</sup> and in Tontemboan (Sneddon 1978: 184, fn. 9), where, however, forms ending in ? contrast with forms ending in ŋ which must themselves have been historically vocative: *amanŋ* (ref), *ama?* (voc), 'father'.<sup>40</sup> Given this agreement between

TABLE 3

Forms of address/vocatives (preceding colon) and forms of reference (following colon) of the words for 'father', 'mother' and 'grandparent/grandchild' in various languages of Sarawak

	Fa	Mo	GrPa/ GrCh
Bario Kelabit	tama? : tətaməh	sina? : təsinəh	təpu? : (tə)təpuh
Long Merigam	ma? : tamən	na? : tinən	(di?) : təpun <sup>41</sup>
Long Wat	ama? : tamən	ina? : tinən	akəy : ukun
Batu Belah	ama? : tamah	ina? : tinah	sadi?

languages that show no evidence of a close subgrouping connection within Western Malayo-Polynesian, we would appear to have no choice but to assign a vocative meaning to the PWMP etymon. The following paradigm is thus attributed to Proto-Western Malayo-Polynesian:

FIGURE 4

The Proto-Western Malayo-Polynesian vocative paradigm in \*-q (plus accent shift)

Fa	Mo	GrPa/GrCh	Yo    Sb	El    Sb
ama (add)	ina (add)	a(m)pu (add)	ua(n)ji (add)	aka (add)
amá-q (voc)	iná-q (voc)	a(m)pú-q (voc)	ua(n)jí-q (voc)	aká-q (voc)

3.4. In addition to the preceding there is a set of forms which shares a partial resemblance to the simple roots for 'father', 'mother', 'grandparent/grandchild' and 'elder sibling of the same sex', but is distinguished from them by the appearance of -y. Consistent with the previous examples, the meaning of this element is not at all obvious from the reflexes cited in Table 1. Once again, however, in certain of the languages of Sarawak -y marks a contrastive vocative form of some kinship terms, as seen in Table 4:

TABLE 4

Forms of address/vocatives (preceding colon) and forms of reference (following colon) of the words for 'father', 'mother' and 'grandparent/grandchild' in various languages of Sarawak

	Fa	Mo	GrPa/GrCh
Long Atip	amay : taman	inay : hinan	(puy : səpuk)
Uma Bawang	amay : taman	inay : hinan	
Long Dunin	amay : tamən	inay : sinən	

Although \*-y, like \*-q, clearly must be reconstructed for PWMP, its meaning is more difficult to infer. Since the only distinctive meaning that has thus far been isolated for this suffix is that of 'vocative', however, there appears to be no serious alternative to assigning a vocative meaning to \*-y at the PWMP level. This argument is further strengthened by a consideration of Casiguran Dumagat *ápo* (ref), *bóboy* (voc), 'grandparent/grandchild'. Although the synchronic evidence in Casiguran Dumagat does not permit the segmentation of -y in the latter form, comparison with Favorlang *bubu*, Paiwan *vuvu*, Ami *fúfu?*, 'grandparent', Gitua *pupu* GrPa/GrCh, Selau *bubu* ~ *pupu*, GrCh (add), does. We are left with two alternatives: (1) to assume that the glide in *bóboy* originally signalled something other than the vocative and that the entire morphologically complex word subsequently came to be used as a vocative in contradistinction to *ápo*, or (2) to assume that -y in pre-Casiguran Dumagat was vocative, but that the earlier paradigm \*bobo (ref):bobo-y (voc) was broken up through the replacement of \*bobo by *ápo*.<sup>42</sup> Given the Bornean evidence and the apparent agreement of the western witnesses with Takia *təna-* (ref), *nei* (voc), 'mother', (2) would seem to be the better supported of the two alternatives. The following paradigm is therefore attributed to Proto-Western Malayo-Polynesian:

FIGURE 5

The Proto-Western Malayo-Polynesian vocative paradigm in \*-y (plus accent shift)

Fa	Mo	GrPa/GrCh	El    Sb
ama (add)	ina (add)	a(m)pu; bubu (add)	aka (add)
amá-y (voc)	iná-y (voc)	a(m)pú-y; bubú-y (voc)	aká-y (voc)

As seen in Figure 5, in addition to \*a(m)pu, \*a(m)pú-y we must posit \*bubu to account for the appearance of cognate forms in Paiwanic and Oceanic languages, and \*bubú-y to account for the appearance of Casiguran Dumagat *bóboy* and possibly Takia *bui*, 'ancestor; GrPa/GrCh' (which could, however, reflect \*a(m)pú-y, etc., on the assumption that the first vowel was lost as a result of accent shift: \*a(m)pú-y > pu-y). In this connection it is worth noting that the suffixes \*-ŋ, \*-q and \*-y are attested in certain other roots that are not considered at length here, and in these cases sometimes provide additional support for the conclusions reached from the more restricted data base. Representative examples are: 1. \*aya, \*ayá-q, \*ayá-y:<sup>43</sup>

Atayal *y-aya*, 'mother', Western Bukidnon Manobo *aya?*, 'female sibling of parent or more distant female relative of parental generation', Malay *ayah*; Leti *yēi* (< \**aya-y?*), 'father', Aru *yay* (add) (v. the reference term *jin*), Buli *ayē*, *aya-kē* (voc) (v. the ref. term *hñē*), 'mother'; 2. \**bapa*, \**bapá-ŋ*, \**bapá-q*, \**bapá-y*: Ilocano *bápa*, 'father, mother, uncle, aunt', Botolan Sambal *bapa?*, Delang *bopai*, Rejang *bapo?*, Solorese *bapa*, 'father', Malay *bapaŋ*, 'father; my father. In Malayo-Javanese romance, used when speaking of or to one's own father', Balinese *bapa-n*, Fa, FaBr, MoBr, etc.; 3. \**nana*, \**naná-ŋ*, \**naná-y*:<sup>44</sup> Atayal *nana*, ElSiHu (ws), HuElBr, HuElSiHu, Chamorro *nana*, Inibaloi *nanan*, Botolan Sambal *nánay*, Kalamian Tagbanwa *nanay*, 'mother', Cebuano Bisayan *nána*, 'woman of an older generation; elder sister', *nánan*, 'mother, grandmother (ref or add)', *nánay*, 'mother (ref or add)', *nay*, 'mother (voc)', Sangir *nene* (< \**nané* < *naná-y?*), 'grandmother', Sampit *nanan*, 'father', Balinese *nanan*, Fa, FaBr, MoBr, etc., Lironesa *nana*, 'mother (add)', Fijian *nānā*,<sup>45</sup> 'an affectionate word for "mother"'; 4. \**tata*, \**tatá-ŋ*, \**tatá-q*, \**tatá-y*: Chamorro *tata*, Inibaloi *tatan*, Botolan Sambal *tatay*, 'father', Cebuano Bisayan *táta*, 'father, address of respect to a father (or other older man, esp. a close relative)', *tátan*, 'grandfather, great-grandfather (address of respect)', *tátay*, 'father, uncle, grandfather (add)', *tay*, 'father, etc. (voc)', Sangir *tete* (< \**taté* < \**tatá-y?*), 'grandfather', Ma'anyan *tata?*, 'elder sibling',<sup>46</sup> Numfor *kaka*, Mendak *tata*, 'mother's brother (voc)', Nokuku *tata*, 'father (add)'; 5. \*(k)uku, \*(k)ukú-y: Saisiyat *kuku*, 'grandmother', Murik *uku*, 'grandparent', Long Wat *uku-n*, 'grandparent (ref)', Mentawai *ukkui*, 'father'.

3.5. A different set of relationships appears in the words meaning 'elder sibling'. As can be seen from the material cited in Table 1, a number of languages point to \**kaka*, as reconstructed by Dempwolff, but others fail to reflect an initial consonant. Reflexes of \**aka*, 'elder sibling', are distributed from Formosa through the Philippines, Sulawesi and Borneo to Moken in the Mergui Archipelago. As with the sets distinguished by \*-ŋ, \*-q and \*-y, there is no clear basis in the material cited in Table 1 for distinguishing these forms semantically. It is noteworthy, however, that Milke (1938) reconstructed Proto-Oceanic \**tuqaka* (ref), \**kaka* (voc), El || Sb, suggesting that the former term is a fusion of PAN \**tuqaS*, 'mature, full, ripe, elder', and \**aka*. Three other languages are known to contain non-synonymous reflexes of \**kaka* and \**aka*:

Budai Rukai	Sangir	Ngaju Dayak
káka ElSb (add)	kaka ElSb (voc)	kaka ElSb (not of Ego)
taka-táka ElSb (ref)	(i) aka-ŋ ElSb (ref)	aka ElSb (of Ego)

It can be seen that both \*kaka and \*aka enjoy a wide distribution among AN languages, and that where reflexes of both forms are found in the same language they often manifest a reference/address (or vocative) distinction. Given the agreement of Rukai, Sangir and Proto-Oceanic (but not of Ngaju Dayak) in pointing to \*kaka as a vocative term, the reconstruction of \*kaka (voc), \*aka (ref), would seem to be a relatively straightforward matter. Moreover, additional support for this interpretation appears to be found in Rukai *taka-táka*, where the initial consonant could derive from a secondary addition of \*ta-, 'referential'.

Stated somewhat differently, we might assume that \*k- was a vocative prefix semantically comparable to the suffixes \*-ŋ, \*-q and \*-y. There are, however, problems with this interpretation. First, because \*k- does not appear to have been productive there is reason to suspect that it was not a morpheme in the usual sense.<sup>47</sup> Second, in many attested languages vocative expressions are foreshortened forms of longer reference terms (or address terms where the address and vocative forms differ): Cebuano Bisayan *nánay* (ref and add), *nay* (voc), 'mother', *tátay* (add), *tay* (voc), 'father, uncle, grandfather', Malay *adek* (ref), *dek* (voc), Banjarese *adin* (ref), *din* (voc), 'younger sibling', etc.<sup>48</sup> We might, then, assume that \*kaka and \*aka were related through foreshortening (loss of the initial segment or syllable) rather than through minimally productive morphology. But this would suggest — contrary to our original interpretation — that \*kaka was referential and \*aka was vocative.

Finally, in addition to the individual sibling terms \*(k)aka, 'elder sibling', \*ua(n)ji, 'younger sibling', a composite term \*kakaua(n)ji or \*ua(n)jikaka evidently must be assumed to account for such widespread reflexes as Toba Batak *hah(a)angi*, 'siblings of the same sex', Roti *ka?afadi*, 'siblings of the same sex; lineage mates', Malay *adek kakak*, 'brothers and sisters; one's near relations', Soboyo *ulikaka*, 'brothers and sisters', Motu *tadikaka*, 'brothers and sisters by the same parents; cousins; family relations'. It is noteworthy that this comparison requires a prototype with \*kaka — not \*aka, thereby implying that the longer term (\*kaka) was referential in Proto-Malayo-Polynesian, and presumably in Proto-Austronesian as well.<sup>49</sup>

3.6. In support of the foregoing analysis we can, moreover, cite the similar case of \*aki, \*laki, 'grandfather'. As with \*aka, \*kaka, two clearly related forms of the word for 'grandfather' can be assigned to Proto-Malayo-Polynesian, but their distinctive meanings are not at all clear from the reflexes cited in Table 1. However, Bolaang Mongondow *laki* (ref), *aki* (voc), 'GrFa', suggest that \*laki, like \*kaka, was referential, and that \*aki, like \*aka, was vocative. Once again, there is no known evidence for a productive prefix distinguishing these forms. To account for this fact we might assume that \*aki, like \*aka, was derived by foreshortening from a root that began with a consonant. Under this interpretation a generalization would appear to emerge: in the earliest reconstructible period (viz. PMP) vowel-initial roots (\*ama, \*ina, \*a(m)pu, etc.) were inherently vocative, and the corresponding terms of reference were formed by prefixing \*t-. By contrast consonant-initial roots were inherently referential, and the corresponding vocatives were formed by subtraction. An identical system evidently must be posited for Proto-Western Malayo-Polynesian. While it is not at all obvious why a reference/address (or vocative) distinction would correlate with canonical shape, the available observations do not appear to be explained as well by any currently conceivable alternative. We accordingly reconstruct the following PWMP (and PMP) subtractive paradigm for 'elder sibling of the same sex' and 'grandfather':

FIGURE 6

The Proto-Western Malayo-Polynesian vocative paradigm formed by consonant subtraction<sup>50</sup>

El    Sb		GrFa	
ref	add/voc	ref	add/voc
*kaka	*aka	*laki	*aki

3.7. There is, finally, one further vocative-forming device that is sufficiently widespread to merit comparative attention. Thus Maranao *ari*, 'younger relation, younger person', *aria?*, 'name used with younger person; nickname', appear to be related, but the function of the element that differentiates them is unclear from the Maranao evidence alone. Because it remains an active affix in all other languages for which a reflex is known, \*-aq does not appear in Table 1 (which contains only forms that have undergone phonological restructuring, and hence

potentially pose a comparative problem). Toba Batak *an̄gi* (ref), *an̄gi-á* (voc), Yo || Sb, Bolaang Mongondow *laki* (ref), *aki*, *aki-á* (voc), 'grandfather', however, clearly reveal still another pattern of vocative formation in Proto-Western Malayo-Polynesian (e.g., suffixation with \*-aq), to which the Maranao material can be added as supplementary evidence.<sup>51</sup>

3.8. Intensive comparison of the kinship terminology of a wide sample of AN languages has uncovered a seeming superabundance of vocative-marking devices (\*t-; \*-ŋ, \*-q, \*-y plus accent shift, or accent shift alone; consonant subtraction; \*-aq) in a reconstructed language we call Proto-Western Malayo-Polynesian. Given the subgrouping assumptions adopted in Figure 1, only \*ta-, 'referential', can safely be attributed to Proto-Austronesian,<sup>52</sup> and only \*t-, 'referential', \*-y and consonant subtraction, 'vocative', can safely be attributed to Proto-Malayo-Polynesian. There are, however, scattered observations that might be taken to indicate a more remote antiquity for certain other PWMP vocative-marking devices, and it will perhaps be worthwhile to consider these briefly.

As observed earlier, in discussing the term for 'younger sibling of the same sex' in Fijian and other AN languages, Kern (1886) cited Kei *warin̄* and noted that the 'closing nasal' in this form has parallels in other languages of Indonesia. At first glance the Kei word would seem to compare favorably with the material listed under \*-ŋ in Table 1, and thus to provide a straightforward basis for the assignment of this suffix to Proto-Malayo-Polynesian. Geurtjens (1921), however, gives *warin*, 'younger sibling of the same sex', with -n. Since \*-ŋ yields Kei *n* in at least one unambiguous example (\*ijun̄ > *n-irun*, 'nose'), we might assume that Kei *warin* derives from \*ua(n)ji-ŋ. The difficulty with this interpretation is that Kei has frequently added -n not only to kinship terms (*aa-n*, 'elder sibling of the same sex'), but also to the words for various body parts or bodily substances (\*maCa > *mata-n*, 'eye', \*qaCey > *yata-n*, 'liver', \*(dD)aRaQ > *lara-n*, 'blood'), where it cannot reflect \*-ŋ, 'vocative', but can plausibly be compared with the reduced genitive marker or marker of obligatory possession attached to kinship terms and to a few other words in some of the languages of Borneo (cf. Table 2). One might argue, of course, that the -n found in Kei kinship terms and that found in the names of body parts have distinct historical sources, but independent support for such an assumption is unknown. Kern's suggestion (3) that Kei *warin* contains a reflex of \*-ŋ must therefore be rejected. Similarly, despite its initial

appearance of plausibility, the terminal segment in Manggarai *amaŋ*, MoBr, FaSiHu, etc., Alor Kalabahi *amaŋ*, Fa, Manggarai *inaŋ*, FaSi, MoBrWi, etc., Alor Kalabahi *inaŋ*, Mo, fails to provide unambiguous evidence of \*-ŋ among Central Malayo-Polynesian languages, since both in Manggarai and in Alor Kalabahi -ŋ can reflect \*-n: Manggarai *wulaŋ*, Alor Kalabahi *fulaŋ* < \*bulan, 'moon', Manggarai *usaŋ*, Alor Kalabahi *uraŋ* < \*quZaN, 'rain'. However, Manggarai *popo*, 'pet name for grandparent', *popoŋ*, 'pet name for grandparent' (voc), does suggest the earlier use of \*-ŋ as a vocative-marking device.

The great majority of the languages of eastern Indonesia, like the Oceanic languages, have lost \*q in absolute final position. Direct evidence for assigning \*-q 'vocative' to Proto-Malayo-Polynesian is thus difficult to find. Nonetheless, if we adopt Dyen's (1953:22) suggestion that Tongan *tamaʔi*, 'father', contains a suffix -i (rather than -ʔi), this word can be interpreted as evidence that \*-q 'vocative' was already present in Proto-Malayo-Polynesian.

The primary difficulty with Dyen's analysis of this word is that Churchward (1959) gives Tongan *tamai*, 'father, father's brother', without glottal stop. Dyen's Tongan material was drawn from Dempwolff, who in turn used Colomb (1890) as his primary source. I have not been able to consult Colomb's dictionary; consequently it has been impossible for me to determine whether the discrepancy in the phonemic shape of this word as reported by Dempwolff (1934-38) and by Churchward (1959) is due to a copying error on Dempwolff's part, or in fact represents a difference between the two primary sources. Even if Dempwolff's transcription is taken at face value, however, there is a secondary difficulty with Dyen's interpretation, since it has been shown (Brandstetter 1916:120, Pawley 1973:122) that PMP (and POC) \*-i was almost certainly a transitivizing suffix; the analysis of a Tongan form *tamaʔi*, 'father', as *tamaʔ* plus -i would therefore, not be easy to justify.

The reconstructed vocative-marking devices that can be assigned to Proto-Western Malayo-Polynesian are displayed in Table 5 (summary of Figures 2-6). Where a higher level of assignment is also possible this is indicated by an abbreviation of the relevant proto-language (PMP, PAN) in parentheses following the form in question (see page 230).

#### *Corollary benefits*

4. The reconstructual assumptions adopted in the preceding section were motivated solely by a desire to explain the surprising abundance

TABLE 5

Proto-Western Malayo-Polynesian vocative-marking devices and the major terms to which they applied

1. \*t- (PMP \*t-, PAN \*ta-) 'referential'
 

*t-ama	'father'
*t-ina	'mother'
*t-a(m)pu, etc.	'grandparent, grandchild'
  
2. \*-ŋ plus accent shift (the two possibly independent) 'vocative'
 

*amá-ŋ	'father'
*iná-ŋ	'mother'
*a(m)pú-ŋ, etc.	'grandparent, grandchild'
*ua(n)jí-ŋ	'younger sibling of the same sex'
*aká-ŋ	'elder sibling of the same sex'
  
3. \*-q 'vocative'
 

*amá-q	'father'
*iná-q	'mother'
*a(m)pú-q, etc.	'grandparent, grandchild'
*ua(n)jí-q	'younger sibling of the same sex'
*aká-q	'elder sibling of the same sex'
  
4. \*-y (PMP \*-y)<sup>53</sup> 'vocative'
 

*amá-y	'father'
*iná-y	'mother'
*a(m)pú-y, etc.	'grandparent, grandchild'
*aká-y	'elder sibling of the same sex'
  
5. consonant subtraction (PMP, PAN?) 'vocative'
 

*kaka : aka	'elder sibling of the same sex'
*laki : aki	'grandfather'
  
6. \*-aq 'vocative'
 

*ua(n)jí-áq	'younger sibling of the same sex'
-------------	-----------------------------------

of cognate but only partially comparable kinship terms in widely separated AN languages. In their deductive application to additional data, however, these assumptions appear to illuminate certain problems that were not considered in their formulation.

4.1. From the standpoint of phonological reconstruction and change, the word for 'younger sibling of the same sex' is a notoriously refractory comparison. To account for mutually irreconcilable collections of apparent cognates Dempwolff (1934-38) posited two related but dissimilar etyma that can be transliterated in Dyen's orthography as \*a(n)ji, \*qa(n)ji. Dempwolff suggested a semantic distinction between these forms ('consanguineal relative, generally younger' vs. 'consanguineal relative, generally of the opposite sex'), but the reflexes he cites as supporting evidence do not convincingly bear him out. To remedy certain of the defects in Dempwolff's treatment Dyen (1953:37) grouped the reflexes of both terms under a single prototype: \*aji(h).

More recently Dahl (1976:80) has proposed the reconstruction of \*(qu)a(n)ji, with an initial syllable that is reflected in many AN languages, but not in others. His proposal that this syllable began with \*q, however, receives little support from known reflexes.<sup>54</sup> Rather, the comparative evidence suggests that the word for 'younger sibling of the same sex' began with \*S. Such an assumption, at least, permits us to account for the otherwise unexplained appearance of h- in several Philippine reflexes of this form (Ata Manobo, Kalamansig Cotabato Manobo *hadi*, Western Bukidnon Manobo *hazi*) and the appearance of s- in a number of Formosan reflexes (Sediq *su'ai*, Thao *sa-suwá: di?*, Pazeh *sua: zi?*, Kavalan *sua: ni?*). We therefore reconstruct PAN \*Sua(n)ji, 'younger sibling (probably of the same sex)'.<sup>55</sup>

What remains problematic about this comparison is the absence of the first syllable vowel in a number of languages that should reflect it. Western Bukidnon Manobo, for example, permits *u* before a vowel (= homorganic semivowel) in prepenultimate syllables (*buwalew*, 'a tree: Ternstroemia toquian'). The absence of *u* in WBM *hazi* (as apparently also in the other Philippine forms) is thus unexplained. A number of languages in the Lesser Sundas also fail to reflect \*u (> \*w-) in the word for 'Yo || Sb', as Bima *ari* (next to \*walu > *waru*, '8'), Palue *ari* (*walu*, '8'), Kambara *eri* (*walu*, '8'), Tetum *ali-n* (*walu*, '8'), Kemak *ali-r* (*balu*, '8'), and Mambai *ali* (*waul*, '8') — though others indicate the former presence of the vowel, as Roti *fadi* (*falu*, '8'). In a few of the above languages the absence of a rounded onset in this word may be a result of prepenultimate vocalic neutralization and subsequent deletion prior to the loss of \*S (\*Suaji > Səaji > Saji). In most cases, however, the available evidence does not support such a conclusion.

So far as is known, prepenultimate neutralization did not occur in

Proto-Oceanic, yet Oceanic languages point to an immediate prototype \*ta(n)ji,<sup>56</sup> 'younger sibling of the same sex'. Structurally the Oceanic reflexes appear to parallel WMP forms of the type Tagabili *twolih*, Sangir *tuali*, Tondano *tuali*, Western Toraja *tua?i*, then, but with unexplained loss of the first vowel. There is some evidence that original high vowels which came to be intervocalic semivocalized in Proto-Oceanic (PAN \*ma-Siaq > POC \*mayaq, 'shy, ashamed', \*ma-Suab > \*mawap, 'yawn'). It is not inconceivable that a similar change affected the first of unlike vowels in a prepenultimate syllable if it was high, even when preceded by a consonant. If so, the resulting consonant cluster may have been simplified by deletion of the weaker member (\*tuaji > twaji > taji). But independent evidence supporting such an interpretation is also yet to be found.

The broad comparative picture thus appears to be inexorably contradictory: in some languages (Ata Manobo, Kalamansig Cotabato Manobo, Western Bukidnon Manobo, Bima, Palue, Kambara, Tetum, Kemak, Mambai, Proto-Oceanic) the word for 'younger sibling' is compatible with a PAN reconstruction \*Sa(n)ji or (excluding the first three named languages) \*a(n)ji, but not with a reconstruction that contains \*u. In others (Puyuma, Atta, Tagabili, Sangir, Tondano, Western Toraja, Mori, Tunjung, Mentawai, Roti, Kei, Makahala, etc.) the reflexes are compatible with \*wa(n)ji, \*ua(n)ji or \*Sua(n)ji, but not with a reconstruction that lacks \*w or \*u. In still other languages (Sediq, Thao, Pazeq, Kuvalan) the reflexes support the reconstruction both of \*S and of \*u. Since all forms which can reflect \*wa(n)ji and \*ua(n)ji apparently can also reflect \*Sua(n)ji, \*wa(n)ji and \*ua(n)ji would seem to be the most dispensable of the available alternatives.

Although it is clear that words such as Sangir *tuali* or POC \*ta(n)ji derive from morphologically complex reconstructions, there is no known basis in the comparative evidence for a similar analysis of \*Sua(n)ji. In conclusion, then, we are confronted with two alternatives: 1. to reconstruct only \*Sua(n)ji and to accept an unexplained loss of the first vowel in a number of widespread languages, or 2. to return (in a different guise) to Dempwolff's solution through the reconstruction of \*Sa(n)ji, \*Sua(n)ji.

It will be seen that Table 5 does not contain a form of the word for Yo || Sb prefixed with \*t-. Although t-forms of this term are not known in any Formosan language, they are found in more than one first-order Malayo-Polynesian subgroup. There would thus appear to be *prima facie* evidence for assigning a t-form of the term for Yo || Sb

to Proto-Malayo-Polynesian. But what would have been the shape of such a morphologically complex word?

One generalization that seemed to emerge with some clarity earlier was that PAN \*ta-, PMP \*t- 'referential' were prefixed to inherently vocative *vowel-initial* roots (\*ama, \*ina, \*a(m)pu, etc.), and that inherently referential consonant-initial roots formed their vocatives by subtraction. If the word for 'younger sibling of the same sex' had been \*Sua(n)ji or \*Sa(n)ji it could not have formed its vocative through the addition of \*ta-, but must have formed it instead by subtraction. The possible relevance of this observation to the contradictory comparative evidence now becomes clear: languages which appear to reflect \*Sua(n)ji derive from the referential form of the root, while those which appear to reflect \*Sa(n)ji or \*a(n)ji derive from the vocative. Since PAN \*S was retained as a consonant in Proto-Malayo-Polynesian, t-forms of the word for 'younger sibling of the same sex' in WMP and OC languages evidently are the result of parallel development from the vowel-initial vocative form (or possibly from earlier \*ua(n)ji prior to semivocalization). Such a view requires the assumption that vocative-forming subtraction in this word affected the entire first syllable rather than simply the initial segment. Moreover, it fails to explain why the vowel but not the consonant is lost in Ata Manobo, Kalamansig Cotabato Manobo *hadi*, Western Bukidnon Manobo *hazi*, and why PMP \*t- was almost never added secondarily to reflexes of \*aka, 'elder sibling of the same sex (voc)'.<sup>57</sup> Nonetheless, the subtraction hypothesis does enable us to account for certain puzzling reflexes of this root through a mechanism that is required in any case to explain the variant reconstructions for 'elder sibling of the same sex' and 'grandfather'.

4.2. As noted earlier, Kern (1886) maintained that the otherwise unexplained length in Samoan *tamā*, 'father', *tinā*, 'mother', is the vestige of an earlier final nasal: \*tamaŋ, \*tinaŋ. Although he did not elaborate his views, Kern apparently assumed a compensatory lengthening of the last vowel in these words contingent on the loss of an original final consonant. But in many other Samoan words that derive from consonant-final prototypes the vowel that came to be final was not lengthened: \*iS(e)kan > *iʔa*, 'fish', \*panDan > *fala*, 'pandanus', \*qu(n)Daŋ > *ula*, 'shrimp, lobster', etc.

Kern mentioned the problem of unexplained long vowels in the words for 'father' and 'mother' only in Samoan. It is noteworthy, however, that this problem apparently recurs in at least one other Oceanic

language. Thus Lanyon-Orgill (1962) cites Raluana *tama(-na)*, 'father; father and child, or the relationship between them, or between them and the father's brothers', *tamā-m* (< \**tama-mu*), 'your father' (with length deriving from the contrastive accent introduced by the general loss of original final high vowels: \**tamá-mu*, \**tamá-ña* > *tamá-m*, *tamá-na*), but Matupit dialect *tamā*, 'my father (vocative singular)'. A similar form of the word for 'mother' is not given. Since the singular possessive pronouns given for all Raluana dialects are *-qu* (= ŋgu), *-m*, *-na* the length in Matupit *tamā* evidently cannot be explained as due to accent shift triggered by apocope. If the facts in Samoan and Raluana are connected, then, the vocative-marking accent shift that was earlier assumed to account for a different set of observations could serve to illuminate their common origin.<sup>58</sup>

Similarly, in certain of the languages of the Lesser Sundas the first vowel of the word for 'father' — contrary to expectation — is not *a*, but schwa: Manggarai, Keo, Ngadha *ema*. Since the weakening and ultimate deletion of a vowel normally presupposes that the segment so affected is unstressed, these Central Malayo-Polynesian forms suggest earlier \**amá*, and further support the view that accent shift was functional as an independent vocative-marking device in Proto-Malayo-Polynesian.<sup>59</sup>

4.3. Dempwolff (1938) recorded Javanese *aḍi?*, Malay *adi?*, 'younger sibling', Javanese, Malay *kaka?*, 'elder sibling', and Malay *mama?* < \**mama*, 'mother's brother'. To these he might have added *bapa?* < \**bapa*, 'father'. Collectively these forms exemplify a problem that has not yet been discussed.

In all but one of the languages (Buginese) for which reflexes of \**-q* 'vocative' are given in Table 1 the regular reflex of \**-q* is glottal stop. In both Javanese and Malay, on the other hand, the regular reflex of \**-q* is *h*: \*(*dD*)*aRa*q > Jv *rah*, Ml *darah*, 'blood', \**Ruma*q > Jv *omah*, Ml *rumah*, 'house'. The final segment in Jv *adi?*, Ml *adi?*, 'younger sibling', thus cannot regularly derive from \**q*.

Word-final glottal stop in Javanese and Malay regularly reflects \**-k*, and must be analyzed synchronically as an allophone of /*k*/ in both languages. Phonemically, then, the words in the preceding paragraph are: Jv /*aḍik*/, Ml /*adik*/, 'younger sibling', Jv, Ml /*kakak*/, 'elder sibling', Malay /*mamak*/, 'mother's brother', /*bapak*/, 'father'.

Verhaar (1978) has suggested that the terminal segment in Malay kinship terms such as *adik* and *kakak* reflects \**-ku*, '1st sg. possessor',

through an otherwise unattested loss of the final vowel of obligatorily possessed forms. In all other AN languages known to have obligatorily possessed nouns, however, non-specific obligatory possession (i.e. the type that might be preserved through phonological restructuring) is invariably marked with the 3rd sg. possessive suffix, or with a reflex of \*ni 'genitive'. Moreover, no other AN language is known to have obligatorily possessed kinship terms without also having some obligatorily possessed body parts. There thus appear to be no serious grounds for regarding the final *k* of the above forms as a fossilized possessive pronoun.<sup>60</sup>

Although the use of a terminal glottal stop in vocative forms cannot be called 'iconic' in the narrow sense in which onomatopoeia or sound symbolism are iconic (that is, where articulated sound directly evokes natural sound or some productive semantic feature — as size, proximity, etc.), it can be called 'iconic' in that there is a presumably universal relationship between the sound and the effect it is intended to achieve (much as a hiss or deliberate cough is used to attract attention in various cultures). While the matter obviously remains open to empirical investigation, it seems *a priori* unlikely that forms ending in *h* (a voiceless vowel) could serve a vocative function as effectively as forms ending in glottal stop. There are thus phonetic reasons for suspecting that the aberrant *k* in certain Javanese and Malay kinship terms reflects \*-q 'vocative', with resistance to sound change due to the inherent iconicity of final glottal stop vis-à-vis final *h* in this function. Since all other instances of \*-q, including those in some kinship terms,<sup>61</sup> became *h*, and since \*-k became phonetic glottal stop in both languages, \*-q 'vocative' was reinterpreted phonemically both in Javanese and in Malay as /k/.

#### *Residual problems*

5. The foregoing analysis has helped to shed light on a number of previously unexplained initial and final segments encountered in the comparison of kinship terms among Austronesian languages. At the same time, however, it creates at least three entirely new problems. As shown in Table 4, no less than six vocative-marking devices are widespread in Western Malayo-Polynesian languages, and although no attested language is known to use more than two of these, all six evidently must be attributed to Proto-Western Malayo-Polynesian as active inflections. Why, then, would a language possess six distinct ways of marking the vocative?

There appears to be no easy answer to this question. It is possible that some or all of the suffixed elements in Table 4 were in complementary distribution, just as *-ŋ* plus accent shift is used in Toba Batak to mark the vocative of terms for parents and elder siblings, while *-a* plus accent shift is used to mark the vocative of the term for younger sibling. But the attested distribution of vocative suffixes does not consistently support any one hypothesis of complementation. Moreover, of all sentential elements vocative constructions probably represent the most extreme form of syntactic independence. Thus, in speaking of the Proto-Indo-European case system, Lehmann (1974:190) notes that "Of the eight cases, only one, the genitive, served primarily to indicate relationships between substantives. Another, the vocative, marked nouns as being independent of other elements. In this way the vocative preserved longest the earlier situation in which nominal forms with characteristic endings had a self-contained meaning, independent of other elements in the sentence."

Given this relative immunity to contextual influences, why would a system of vocative marking acquire such an exuberant variety of surface realizations?

A second problem involves the relationship between what we regard as unaffixed words (as *\*ama*) and their affixed counterparts. If PWMP *\*ama* was an address or vocative form in contrast to *\*t-ama*, why was it necessary to add a suffix (such as *\*-ŋ*, *\*-q* or *\*-y*) to mark the vocative redundantly? It is possible that *t*-forms were restricted to a particular type of referential usage (perhaps as generic personal names) and that the unaffixed base was more generally referential, but clear support for this interpretation is yet to be found. Or was there perhaps a distinction between address forms and vocative forms (treated as equivalent in this paper)? But apart from the probability that forms used in calling will be higher in pitch and more likely to be foreshortened, evidence for such a distinction is also lacking.

Third, why do kinship terms in a number of AN languages exhibit what from a historical standpoint must be regarded as contradictory vocative marking? Thus Siang *tamai*, 'father', *tinai*, 'mother', reflect the PMP referential prefix *\*t-* (which converted inherently vocative *\*ama*, *\*ina* to non-vocative *\*t-ama*, *\*t-ina*), plus the vocative suffix *\*-y* (converting *\*t-ama*, *\*t-ina* back to vocative *\*tama-y*, *\*tina-y*). As indicated by the use of hyphens (with the first hyphen dropped in *\*tama-y*, *\*tina-y*), it seems likely that the referential function of *\*t-* had been lost in Siang before *\*-y* was added to the originally complex

forms. Similarly, it is probable that the vocative-marking function of consonant subtraction had already been lost in Javanese before \*-ŋ was added to earlier \*kaka > *kakaŋ*, 'elder sibling'.<sup>62</sup>

In view of the difficulty of answering the above questions one might be tempted to see the results obtained as an artifact of the Comparative Method itself (where inferred content seems frequently to be richer than attested content). But Proto-Indo-European, to cite another non-attested language, is reconstructed with only two realizations of the vocative case (Lehmann 1974 : 190-91). Alternatively, these results might be regarded as products of a faulty application of the Comparative Method in the particular case at hand. This is possible, and every effort should be made to find more plausible alternatives to the explanations offered here.

Finally, it should be emphasized that our solution violates an important point of method: that features which have not been observed in any attested language should not be attributed to a reconstructed language. Like any explanatory hypothesis, however, a linguistic reconstruction must serve more than one master. The requirement of compatibility must be balanced against the requirement of accountability, and to date the most thorough scrutiny of the available evidence provides multiple indications that a language ancestral to the attested languages of the Philippines and western Indonesia possessed an extraordinary repertory of vocative-marking devices most of which were lost or redefined in any one of its daughters, but at least six of which survived — active or fossilized — in two or more widely scattered languages.<sup>63</sup>

*University of Leiden*

#### NOTES

- <sup>1</sup> I am grateful to J. C. Anceaux and D. J. Prentice for the loan of materials otherwise difficult to obtain, and for valuable discussions of the ideas expressed here. Responsibility for the results rests with me alone. Sources of material are as follows:

*Sources of language material*

Alor Kalabahi: Fox n.d.	Balinese: Geertz 1972
Ami: Ferrell 1969	Balingian: Blust n.d.
Aru: Fox n.d.	Banggai: van den Bergh 1953
Ata Manobo: Reid 1971	Banjarese: Hudson 1967
Atayal: Mabuchi 1960	M. Asfandi Adul (p.c.)
Atoni: Schulte Nordholt 1971	Bantik: Sneddon 1970
Atta: Reid 1971	Bima: Blust n.d.

- Binukid: Reid 1971  
 Bisaya Bukid: Blust n.d.  
 Bolaang Mongondow: Dunnebie 1951  
 Bontok: Reid 1976  
 Botolan Sambal: Reid 1971  
 Buginese: Mills 1975,  
     J. Noorduyn (p.c.)  
 Buli: Maan 1940  
 Bunun: Jeng 1971  
 Buruese: Devin 1969  
 Casiguran Dumagat: Headland and  
     Headland 1974  
 Cebuano Bisayan: Wolff 1972  
 Chamorro: Topping, Ogo and  
     Dungca 1975  
 Dalat (Kampung Teh): Blust n.d.  
 Delang: Hudson 1967  
 Dusun Deyah: Hudson 1967  
 Dusun Malang: Hudson 1967  
 Endeh: Needham 1968  
 Favorlang: Ferrell 1969  
 Fijian: Capell 1968  
 Gitua: Lincoln 1977  
 Gorontalo: Pateda n.d.  
 Hanunó: Conklin 1953  
 Hawaiian: Pukui and Elbert 1971  
 Iban: Scott 1956  
 Ilocano: Carro 1956  
 Inibalo: Reid 1971  
 Isneg: Vanoverbergh 1972  
 Javanese: Pigeaud 1938  
 Kalamansig Cotabato Manobo:  
     Reid 1971  
 Kalamian Tagbanwa: Reid 1971  
 Kambara: LeBar 1972a  
 Kanakanabu: Ferrell 1969  
 Katingan: Hudson 1967  
 Kei: Geurtjens 1921  
 Kemak: Fox n.d.  
 Keo: Fox n.d.  
 Kupalan: Ferrell 1969  
 Lenakel: Lynch 1978  
 Leti: Jonker 1932  
 Lironesa: Tryon 1976  
 Lundu: Topping n.d.  
 Ma'anyan: Hudson 1967  
 Makahala: Sierevelt 1920  
 Malay: Wilkinson 1959  
 Mambai: Fox n.d.  
 Manggarai: Verheijen 1967  
 Mansaka: Reid 1971  
 Maori: Williams 1971  
 Maranao: McKaughan and  
     Macaraya 1967  
 Mendak: Blust n.d.  
 Mentawai: Nooy-Palm 1972  
 Merina: Abinal and Malzac 1963  
 Minangkabau: Wilkinson 1959  
 Minansut: Prentice n.d.  
 Moken: Lewis 1960  
 Mori: LeBar 1972b  
 Motu: Lister-Turner and Clark 1930  
 Mukah: Blust n.d.  
 Murik: Blust 1974  
 Nali: Blust n.d.  
 Nauna: Blust n.d.  
 Ngadha: Arndt 1954  
 Ngaju Dayak: Hardeland 1859  
 Nias: Sundermann 1905  
 Nokuku: Tryon 1976  
 Numfor: van Hasselt and  
     van Hasselt 1947  
 Pa' Dalih: Blust n.d.  
 Paiwan: Ferrell 1970  
 Palauan: McManus 1977  
 Palawan Batak: Warren 1959  
 Palue: Fox n.d.  
 Pangasinan: Benton 1971  
 Paulohi: Stresemann 1918  
 Papeh: Ferrell 1969  
 Penchal: Blust n.d.  
 Port Sandwich: Tryon 1976  
 Proto-Oceanic: Milke 1938, 1958  
 Rahuana: Lanyon-Orgill 1962  
 Ratahan: Sneddon 1970  
 Rejang: Jaspan 1972  
 Ribun: Hudson 1970  
 Riung: Fox n.d.  
 Roti: Jonker 1908  
 Sa'dan: Mills 1975  
 Sadong: Ray 1913  
 Saisiyat: Ferrell 1969  
 Samal: Reid 1971  
 Samoan: Milner 1966  
 Sampit: Ray 1913  
 Sangir: Steller and Aebersold 1959  
 Sarikei: Blust n.d.  
 Sasak: Goris 1938  
 Sediq: Ferrell 1969  
 Selau: Blust n.d.  
 Siang: Hudson 1967  
 Simalur: Kähler 1961  
 Singhi: Reijffert 1956  
 Siraya: Ferrell 1969  
 Soboyo: Fortgens 1921  
 Solorese: Barnes 1972  
 Subanun: Reid 1971  
 Sundanese: Koentjaraningrat 1972

Tagabili: Forsberg and Lindquist 1955	Tongan: Churchward 1959
Tagalog: Panganiban 1966	Tsou: Ferrell 1969
Takia: Blust n.d.	Tunjung: Hudson 1967
Tangga: Bell 1977	Uma: Esser 1964
Tarakan: Ray 1913	Uma Bawang: Blust n.d.
Tetum: Mathijssen 1906	Uma Juman: Blust 1977b
Thao: Ferrell 1969	Western Bukidnon Manobo: Elkins 1968
Tidong: Beech 1908	Western Toraja: LeBar 1972c
Timorese (= Atoni): Blust n.d.	Windesi: Anceaux 1961
Timugon Murut: Prentice n.d.	Wogeo: Blust n.d.
Titan: Blust n.d.	Yamdena: Drabbe 1932
Tondano: Sneddon 1978	Yami: Mabuchi 1960

The orthography of sources has been regularized in accordance with the following conventions: in all Dutch and German publications *dj* and *j* have been rewritten *j* and *y* respectively, both in the ordinary vocabulary and in language names; ? is used to represent the glottal stop, ə the schwa, or 'pepet', and ɲ the velar nasal. Proto-Austronesian reconstructions are written in the orthography of Dyen, and Proto-Oceanic reconstructions in that of Grace.

- <sup>2</sup> This paper is an expansion of some marginal remarks that appear in a longer work (now in progress) on the reconstruction of Proto-Malayo-Polynesian sibling terminology. As the systematic interrelationships of the terms discussed here and their collective relationship to the underlying social system are treated at some length in the longer paper, these problems are not considered further in the present context.
- <sup>3</sup> Blanks generally indicate either the lack of a cognate term or the occurrence of a strictly non-comparable cognate (i.e., one which is related historically — but not synchronically — by affixation or subtraction). In the latter case the cognate term appears in the appropriate section of the table (e.g. Samal *əmma?*, 'father', sub \*amaq, Yamdena *ame, ene* sub \*amay, \*inay, etc.). Synchronic morpheme boundaries are marked by hyphen. Because they are in principle accessible to the interested scholar, and thus constitute the data generally available from these languages as comparative evidence, the Kelabit, Kiput, Miri, Bintulu, Mukah and Matu words for 'father' and 'mother' in Table 1 have been taken from Ray (1913); other references to the same languages are based on my own 1971 fieldnotes. Toba Batak and Rukai material in Table 1 is from Fischer (1966) and Ferrell (1969), but material quoted elsewhere is from Warneck (1977) and Li (1977) respectively. I have normally used standard abbreviations for kinship terms where these appear in my sources, but have not attempted to do so where the source gives an ordinary-language description (e.g. 'uncle'), since the conversion from a system of lesser to a system of greater explicitness requires decisions about the grouping of kin types that I did not (under the circumstances) feel entirely at liberty to make.
- <sup>4</sup> Like a number of terms in other semantic fields, reflexes of this word point to a prototypal constellation of forms that range over all possible PAN vowel values (\*a, \*e (= schwa), \*i, \*u): \*a(m)pu, \*e(m)pu, \*i(m)pu, \*u(m)pu. Although the basis for this type of variation appears to be onomatopoeic or sound-symbolic in some roots, in others (as the present one) it remains unknown.
- <sup>5</sup> To avoid a premature confrontation with the issues that this reconstruction raises I have written the term for 'younger sibling of the same sex' (symbolized 'Yo || Sb') with an initial vowel. This phonemic representation is a convenient

fiction which will be modified in the course of the discussion. For reasons that will become clear I have also deferred mention of certain reflexes until a later stage of the argument.

- <sup>6</sup> Cp. *apəʔ ayən*, 'grandfather', *maʔ ayən*, 'grandmother' (add).
- <sup>7</sup> 'Ancestors; title for various spirits; euphemism for crocodile; euphemism for male and female genitalia'; (in western Manggarai) 'grandparents; crocodile'; (in central Manggarai) 'degree of collaterality; very old'; (in western and central Manggarai) 'totem, tabooed clan symbol' (rare in the central dialect); (in central Manggarai and the Kempo dialect) 'grandchild'.
- <sup>8</sup> With unexplained \*a > u. The Kanakanabu evidence indicates that the initial consonant in the words for 'father' and 'mother' was \*C, but Rukai *tá:maʔ* (Ferrell 1969) points instead to \*t (cf. Dyen 1965:290). As will be seen, the Puyuma and Paiwan reflexes agree with Rukai.
- <sup>9</sup> Cp. Tagabili *twoguh*, 'elder sibling'. Cf. fn. 10.
- <sup>10</sup> Western Toraja *tukaka* (< \*kaka), 'elder sibling', suggests that *tuaʔi* contains a prefix *tu-*. Since Tagabili *twolih* can be analyzed in the same way (with *tu-* > *tw /— V*), it is possible that the Tagabili and Sulawesi evidence for \*tua(n)ji is spurious. Alternatively, the close association of the terms \*kaka, \*tua(n)ji — which were used both separately and as a compound from at least Proto-Malayo-Polynesian times (cf. 3.5) — may have led in these languages to the contamination of \*kaka by the longer form: \*kaka: tua(n)ji > *tukaka:tua(n)ji*.
- <sup>11</sup> Cp. *diʔ*, 'grandparent' (add).
- <sup>12</sup> In the Tamako dialect: *ama, ina*.
- <sup>13</sup> In some dialects: *ina*.
- <sup>14</sup> Cp. *səpuk*, 'grandparent' (ref).
- <sup>15</sup> As noted elsewhere (Blust 1978), PAN \*b normally > Numfor *b*, and \*p > Numfor *f*, but \*b occasionally yielded *p* (\*kali-beŋbeŋ > *apop*, 'butterfly'). It is not yet clear whether Numfor *p* has other sources in directly inherited words, but there is no known counterevidence to the assumption that it also derives from \*mp.
- <sup>16</sup> Possibly also \*akaŋ, \*akaq, \*akay. Cf. sect. 3.8.
- <sup>17</sup> Dialect of Paril, Kalamansig Cotabato.
- <sup>18</sup> Cp. \*tuqaka El || Sb (ref).
- <sup>19</sup> Together with Isneg *akáy*, 'grandfather', *kakáy*, 'title of respect for aged people', *lakáy*, 'old man', Kankanay *lakey* 'to grow old (only used in songs)', Banggai *kakai*, 'grandfather' (voc), this word may indicate a doublet set \*lakay, \*akay.
- <sup>20</sup> Cunningham (1958:170) gives Toba Batak *ompun doli*, 'grandfather', *ompun boru*, 'grandmother', but Warneck (1977) cites *ompu*, 'grandfather, grandmother, ancestor' (affixable with -ŋ).
- <sup>21</sup> Cf. Blust (1970:127), where I reconstructed \*i(nN)aŋ, 'mother' (but not e.g. \*amaŋ, 'father'), and the discussion below.
- <sup>22</sup> The relevant passage in the original reads:  
Ook Sam. tamā en tinā veronderstellen, wegens den circumflex (sic!), een ouder tamang, tinang.
- <sup>23</sup> Brandstetter's 'Common Indonesian and Original Indonesian' — the essay in which this claim appears — was originally published in 1911. Kern is not directly credited with authorship of the article theory, but it seems clear from certain references in Brandstetter's essay (p. 81, §26, p. 103, §92) that he was sufficiently familiar with Kern's monograph to have absorbed the idea and then (consciously or unconsciously) attributed to it the status of general knowledge.
- <sup>24</sup> Dempwolff's reconstructed doublets began with the "spiritus asper" (the

- equivalent of smooth vocalic onset) and \*h respectively. The transliteration adopted here is consistent with his analysis of the morphology of the reflexes, but not with Dyen's (1953:37). As will be seen (4.1), neither the analysis proposed by Dempwolff nor that proposed by Dyen is capable of accounting for the pattern of reflexes that emerges in a wider sample of languages than they examined.
- <sup>25</sup> Because a reflex was unknown in Javanese (the sole diagnostic witness for the \*t/T distinction), Dempwolff regarded \*(tT)umpu as ambiguous. Strict adherence to his procedure for marking ambiguity would require us also to write \*(tT)ama, etc., but this distinction can conveniently be ignored in the present discussion. It may be noted in addition that Dempwolff's reconstruction of the particular vowel-initial and t-initial variants of the word for 'grandparent/grandchild' that he proposed (viz. \*e(m)pu, \*tu(m)pu) was based entirely on the fortuitous presence of comparative evidence for these forms among the reflexes that he considered, since Ngaju Dayak *empo*, 'parent-in-law', and *tempo*, 'lord, master; owner', are both assigned to \*e(m)pu, 'grandparent/grandchild'.
- <sup>26</sup> The latter, however, probably results from his familiarity with Ray (1913) (a work with which Dempwolff evidently was unacquainted), where t-initial forms are recorded from a number of the languages of Borneo.
- <sup>27</sup> Such a view has actually been expressed directly or indirectly by various writers up to recent times, as by Ivens (1929:22, sub *ama*), Anceaux (1961:31), etc.
- <sup>28</sup> But see the qualification in fn. 10.
- <sup>29</sup> Mabuchi (1960:136), on the other hand, gives Puyuma *imo* GrPa, *těmoan* GrPa/GrCh (recipr.).
- <sup>30</sup> The material presented here is from my 1971 fieldnotes. Forms of address were not available for 'younger sibling' (usually addressed by name), nor, in some languages, for 'grandparent/grandchild'.
- <sup>31</sup> Cp. *ama(n)*, 'father; term of address used by children for their father and by a father for his children'. *Tama* is cross-referenced to *tina*, presumably as its tekonymic equivalent, but as my copy of Devin's manuscript dictionary lacks the page on which the entry for *tama* appears, this information is for the moment beyond my reach.
- <sup>32</sup> Not specified, but presumably an address form.
- <sup>33</sup> As noted in an earlier work (Blust 1978b: fn. 86), despite the distinction in the word for 'mother', Nauna and Penchal evidently do not distinguish reference and address forms for 'father', nor for sibling relationships. A similar asymmetry is perhaps reflected in Mori *ama*, 'father', but *ina*, *ine* (< \*ina-y?), 'mother', and Takia *tama-*, 'father', but *təna-* (ref), *nei* (voc), 'mother'. That Port Sandwich *ina*, Lenakel *in-*, cannot regularly point to \*tina is clear from Tryon's (1976:14, 18) table of phonological reflexes in New Hebrides languages, and from Lynch's (1978:27-31) more detailed study of the languages of the southern New Hebrides.
- <sup>34</sup> For the specific reference to pigs in another, distantly related language, cf. Bario Kelabit *sinan*, 'sow, female pig'.
- <sup>35</sup> Note further that only \*si can be reconstructed as a personal article in this position, since \*i apparently was restricted to non-3rd person actors (Blust 1977a:7).
- <sup>36</sup> Unless stated otherwise, both 'address' and 'vocative' are to be interpreted in Figure 2 and in the remaining discussion as 'address/vocative'. The apparent contradiction that this usage creates is discussed in the concluding section.
- <sup>37</sup> In Casiguran Dumagat the vocative of the sibling terms is also formed by the suffixation of -ɟ plus accent shift (*aka:aké-ŋ*, ElSb, *wadi:wadé-ŋ*, YoSb), but

in Toba Batak only the vocative of the elder sibling term is formed in this way (*haha:hahá-ŋ* El || Sb, but *aŋgi:aŋgi-á* Yo || Sb). Nonetheless, as noted earlier, Katingan *ariŋ*, Banjarese *adiŋ*, YoSb, appear to reflect a vocative form with \*-ŋ. In Hanunóo both sibling terms have invariant forms (*káka?*, *?áka?*, ElSb, *?ári?*, YoSb). A similar disagreement is found in Toba Batak *ompu*: *ompú-ŋ*, 'grandparent; ancestor', next to Hanunóo *?umpú-t*, 'great-grandparent/great-grandchild', nom. and voc. (Casiguran Dumagat lacks a cognate). But Sangir *ompun*, 'lord, master', *upun*, 'ancestor', suggest that \*-ŋ also occurred with this root.

- 38 Brandstetter's citation of the Nias and Bima forms is misdirected, however, as both these languages have lost original final consonants.
- 39 J. Noorduyn has pointed out to me that a similar distinction is found in Buginese *kaka:kaka?*, ElSb.
- 40 Note also Bolaang Mongondow *ompu?*, 'formulaic opening of an invocation to the higher powers, as in swearing an oath, healing, etc.', next to *ompu*, 'lord, ruler; ancestor, GrPa/GrCh'.
- 41 The Long Merigam words for 'grandparent/grandchild' show a structural parallelism with the pattern attested in the words for 'father', 'mother', though they involve two distinct roots. Other examples of this kind of parallelism are: Dalat *apa?:tama*, 'father', *ma?:tina*, 'mother', Balingian *apa?:tama*, 'father' (but *əna?:tina*, 'mother', with a single root). Long Atip *səpuk:puy*, 'grandparent/grandchild', can arguably be classified as involving a single synchronic root with the suffix -y, or as another instance of structural parallelism.
- 42 In a complementary type of paradigm-destroying change semantic shifting presumably led to the dissociation of Casiguran Dumagat *amáy*, 'uncle', from its original paradigm mates *ama* (ref), *amé-ŋ* (voc), 'father'.
- 43 Possibly also *\*ayá-ŋ*; cf. Bisaya Bukid *y-aya-ŋ*, 'elder sibling of a man (voc)'.  
44 Possibly also *\*naná-q*; cf. Minangkabau *nanak*, 'father', and discussion in 4.3.
- 45 Capell writes *nana*. I have indicated length at the suggestion of Andrew Pawley.
- 46 Also Timorese *tata?*, ElSb, where -?, however, is by regular phonological change.
- 47 Saisiyat *kuku*, 'grandmother', next to vowel-initial cognates in other languages (Murik *uku*, 'grandparent', etc.), and Isneg *kakáy*, 'title of respect for aged persons', Banggai *kakai* (voc), Balinese *kaki*, 'grandfather', next to *\*laki*, *\*aki*, 'grandfather', however, raise the possibility that *\*k-* was productive. If so its function remains obscure.
- 48 A comparable phenomenon is found with the use of personal names in some of the languages of Indonesia, as with Javanese *Suparman* (ref), *Man!* (voc), etc. D. J. Prentice (p.c.) has pointed out that in Timugon Murut vocatives are regularly formed from personal names by subtraction of the first consonant, or sometimes of the entire first syllable. The productivity of this pattern is amply illustrated by the fact that he himself was referred to as 'John', but addressed or called as 'Ohn!'.
- 49 Given our earlier assumption that PMP vowel-initial roots (as *\*ama*, *\*ina*, *\*a(m)pu*, etc.) were inherently address or vocative forms which were made referential by the addition of *\*t-*, the reconstruction *\*kakaua(n)ji* or *\*ua(n)jikaka* must be regarded as structurally contradictory, since *\*ua(n)ji* would be a form of address used in a referential function. As will be seen, however, a number of disparate observations become intelligible on the assumption that the PMP word for Yo || Sb actually began with a consonant.
- 50 One might consider the possibility that the relationship between *\*ama:tama*, *\*ina:tina*, etc., was also based on consonant subtraction. If this was the case,

- however, the first vowel of Puyuma *ta'ina?*, 'mother', would be unexplained.
- 51 It is perhaps worth noting that the final glottal stop in reflexes of \*ama-q, \*ina-q and \*aka-q could conceivably derive from \*-aq, with contraction of the sequence of like vowels, in which case \*-q and \*-aq would not be distinct. Since \*-q evidently must be reconstructed in some forms that did not end with \*a, however, (as \*a(m)pu-q, \*ua(n)ji-q), this interpretation must be rejected.
- 52 It is possible that consonant subtraction also functioned as a vocative-marking device in Proto-Austronesian. The available evidence for assigning consonant subtraction to this level is restricted to \*kaka:aka (if Formosan forms such as Siraya *s-aka*, Budai Rukai *t-aka t-áka* reflect \*aka). Similar evidence is lacking in the word for 'grandfather' (some Formosan languages pointing to \*aki, but none pointing to \*laki) and in other roots that might be expected to show a similar pattern (as 'grandmother', where a number of languages reflect \*baqi, but none is known to reflect \*\*aqi).
- 53 The assignment of \*-y to Proto-Malayo-Polynesian is based on the appearance of Tetum *tei*, 'father', < \*tatá-y 'father' (voc), Tetum *nai*, 'mother', Takia *nei*, 'mother' (voc), < \*iná-y or \*naná-y, 'mother' (voc), and Numfor *apui* < \*a(m)pú-y, Takia *bui* < \*a(m)pú-y or \*bubú-y, 'ancestor'; GrPa/GrCh.
- 54 Dahl gives Ngaju Dayak *pahari*, Tongan *fa?ahi*, Rukai *?agi?* (Ferrell 1969) as evidence for reconstructing \*q- in this form. But similar terms in other languages of Borneo show that the *h* of Ngaju Dayak *pahari* reflects \*R or \*S (cf. Uma Juman (*pø*)*hari?*-n, 'sibling, cousin', where *h* can only derive from \*R or \*S). In addition, as evidenced by the differing historical analyses of this word adopted by Dempwolff and by Dyen, it seems clear that the morphology of Tongan *fa?ahi* is open to more than one interpretation. Finally, Li (1977: 34) has shown that PAN \*q > Proto-Rukai zero.
- 55 Note that in so doing we also reject Kern's assumption (2).
- 56 For the reconstruction of \*j in this word cf. Blust 1978b.
- 57 Though this apparently did happen in Budai Rukai *taka táka*, ElSb.
- 58 It is perhaps not out of place here to note that the plural of a small class of [+human] nouns in the Polynesian languages and in Motu of southeastern New Guinea is formed by a *regressive* accent shift to the antepenult: Hawaiian, Maori *wahine*, 'woman', *wāhine*, 'women', Tongan *fefine*, 'woman', *fafine* (where the earlier long vowel has resisted assimilation), 'women (dual, plural)', Motu *hahine*, 'woman', *hāhine*, 'women', etc. Although the facts in this case are somewhat different from those cited above (involving a singular: non-singular distinction rather than a reference:address distinction, and a regressive accent shift rather than a progressive accent shift to mark the distinction), there is a striking general similarity between the two classes of observations in that both involve the use of accent shift to mark a grammatical distinction in a small class of [+human] nouns. A somewhat broader grammatical use of accent shift in various AN languages is discussed by Zorc (1978).
- 59 The first vowel in the word for 'mother' does not undergo a similar reduction in these languages (Manggarai (*ende*), Keo, Ngadha *ine*, 'mother'). But in other AN languages \*a is normally the first vowel to neutralize with schwa in atonic syllables, and this asymmetry in no way detracts from the value of the available evidence.
- 60 J. C. Anceaux (p.c.) has suggested a somewhat more plausible basis for an appeal to clitic pronouns as a source of some of the observations treated in this paper. Thus, he notes that the 1st sg. possessive pronoun evidently had allomorphs \*-ku (following consonants) and \*-ŋku (following vowels). Since both stems ending in a vowel and stems ending in \*-ŋ would have possessed

forms ending in \*-ŋku analogical wrong-division could occur (\*ama:ama-ŋku > \*ama:amaŋ-ku, 'father: my father' > ama:ama-ŋ 'father (ref):father (voc)'). This hypothesis offers the additional advantage of providing an explanation for the cooccurrence of accent shift with -ŋ in some languages, since a rule of moveable accent that maintains stress on the penult in suffixed roots is found in a number of AN languages. However, the clitic pronoun hypothesis does not tell us why the pronominal root has invariably disappeared in vocative forms, or for that matter, given their length, why possessive forms would be used as vocatives in the first place. Moreover, this suggestion fails to explain why analogical wrong-division did not lead to the metanalysis of non-vocative forms either by phoneme addition or by phoneme subtraction (e.g. \*maCa:maCa-ŋku > mataŋ:mataŋ-ku, 'eye:my eye', \*ijjuŋ:ijjuŋ-ku > iju:iju-ŋku, 'nose:my nose'). Finally, even if accepted, the clitic pronoun hypothesis sheds no light on the similar retention in Buginese (where \*-q normally disappeared).

- <sup>61</sup> As *ayah*, 'father', presumably < \*aya-q, 'father's sister'.
- <sup>62</sup> Cases such as Budai Rukai *káka* (add), *taka-táka* (ref), EISb, are more puzzling, since a reflex both of \*kaka and of \*aka is found, yet the assumed vocative reflex carries the referential prefix. As noted earlier, Sangir *kaka* (voc), (i) *aka-ŋ* (ref) and Proto-Oceanic \*kaka (voc), \*tuqaka (ref), EISb, show an apparent reversal of the original reference/address distinction. It is possible that a similar reversal occurred in Rukai before the extension of \*ta- to forms with which it originally did not occur.
- <sup>63</sup> In addition to the distinctive partials that have been isolated here several others occur widely with kinship terms, but do not appear to have served a vocative-marking function. The most important of these are: \*Da- (Siraya *dama*, *rama*, Sarikei *dama-*, Javanese *rama*, Merina *rai* (< \*Da-aya), 'father', Samal *danakan*, 'siblings' (< \*aNak, 'child' ?), Simalur *da-ambu*, GrPa (pl)), \*kam- ... -an/en (Yami *kaminan*, Kiput *kəminan*, 'aunt', Mentawai *kameinan*, FaSi; Bontok *kaamaen*, Kiput *kəmamam*, 'uncle', Mentawai *kamaman*, MoBr) and \*m- (Atayal, Sediq, Ngaju Dayak *mama*, 'uncle', Malay *mamak*, Manggarai *mama*, MoBr, Kei *mam*, Gitua, Motu *mama*, Fa (voc)). \*Da can be regarded as identical with Brandstetter's (1916:103) 'honorific particle' \*ra, but the available evidence suggests that it was a plural marker. If so it may be compared with the 3rd pl. (genitive) pronoun \*Da, as Pawley (1973:112) describes a similar usage in Proto-Oceanic (e.g. \*na papine, 'the woman', \*ida na papine, 'the women'). Both \*kam- ... -an/en and \*m- seem to have marked a degree of lateral remove.

## REFERENCES

- Abinal, P. and V. Malzac  
1963 *Dictionnaire Malgache-Français*. Paris: Éditions Maritime et D'outre-Mer.
- Anceaux, J. C.  
1961 *The linguistic situation in the islands of Yapen, Kurudu, Nau and Miosnum, New Guinea*. Verhandelingen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde, 35. The Hague: Nijhoff.
- Arndt, Paul  
1954 *Gesellschaftliche Verhältnisse der Ngadha*. Studia Instituti Anthropos, 8. Wien-Mödling: Missionsdruckerei St. Gabriel.  
1961 *Wörterbuch der Ngadhasprache*. Studia Instituti Anthropos, 15. Posieux, Freiburg, Suisse.

- Barnes, R. H.  
1972 'Solorese', in: Frank M. LeBar, editor and compiler, *Ethnic groups of insular Southeast Asia, vol. 1: Indonesia, Andaman islands and Madagascar*, pp. 91-94. New Haven: Human Relations Area Files Press.
- Beech, M. W. H.  
1908 *The Tidong dialects of Borneo*. London: Oxford University Press.
- Bell, F. L. S.  
1977 *Tanga-English, English-Tanga dictionary*. Oceania Linguistic Monographs, 21. Sydney: University Press.
- Benton, Richard A.  
1971 *Pangasinan dictionary*. PALI language texts: Philippines. Honolulu: University of Hawaii Press.
- Bergh, J. D. van den  
1953 *Spraakkunst van het Banggais*. The Hague: Nijhoff.
- Blust, Robert A.  
1970 'Proto-Austronesian addenda', *Oceanic Linguistics* 9:104-62.  
1974 'A Murik vocabulary, with a note on the linguistic position of Murik', in: Jerome Rousseau, special editor, *The peoples of central Borneo*, pp. 153-89 (= *The Sarawak Museum Journal* 22.43 (NS)). Kuching: Sarawak Museum.  
1977a 'Pronominal reconstruction and subgrouping in Austronesian: a preliminary report', *Working Papers in Linguistics* 9.2:1-15. Honolulu: Department of Linguistics, University of Hawaii.  
1977b 'Sketches of the morphology and phonology of Bornean languages, 1:Uma Juman', *Pacific Linguistics* A33:7-122. Canberra: Australian National University.  
1978a 'Eastern Malayo-Polynesian: a subgrouping argument'. Proceedings of the Second International Conference on Austronesian Linguistics, Fascicle 1, *Pacific Linguistics* C61:181-234. Canberra: Australian National University.  
1978b 'The Proto-Oceanic palatals', *Memoir* 43, The Polynesian Society, Auckland.  
n.d. Fieldnotes on languages of Sarawak, Brunei, the Lesser Sunda islands and western Melanesia.
- Brandstetter, Renward  
1916 *An introduction to Indonesian linguistics*. Trans. by C. O. Blagden. London: Royal Asiatic Society.
- Capell, Arthur  
1943 *The linguistic position of South-Eastern Papua*. Sydney: Australasian Medical Publishing Co.  
1968 *A new Fijian dictionary*. 3rd ed. Suva: Government Printer.
- Carro, Andrés  
1956 *Iloko-English dictionary*. Translated, augmented and revised by Morice Vanoverbergh. Manila.
- Churchward, C. M.  
1959 *Tongan dictionary*. London: Oxford University Press.
- Codrington, R. H.  
1885 *The Melanesian languages*. Oxford: Clarendon Press.
- Colomb, A.  
1890 *Dictionnaire Toga-Français*. Paris.

- Conklin, Harold C.  
1953 *Hanunóo-English vocabulary*. Berkeley and Los Angeles: University of California Press.
- Cunningham, Clark E.  
1958 *The postwar migration of the Toba-Bataks of East Sumatra*. New Haven: Yale University, Southeast Asia Studies, Cultural Report Series.
- Dahl, Otto Chr.  
1976 *Proto-Austronesian*. 2nd revised edition. Scandinavian Institute of Asian Studies Monograph Series, 15. Lund: Curzon Press.
- Dempwolff, Otto  
1934-38 *Vergleichende Lautlehre des austronesischen Wortschatzes*. Zeitschrift für Eingeborenen-Sprachen. 1. Induktiver Aufbau einer indonesischen Ursprache, Beiheft 15 (1934); 2. Deduktive Anwendung des Urindonesischen auf austronesische Einzelsprachen, Beiheft 17 (1937); 3. Austronesisches Wörterverzeichnis, Beiheft 19 (1938). Berlin: Dietrich Reimer.
- Devin, Chaumont  
1969 *Buruese-English dictionary*. Typescript.
- Drabbe, P.  
1932 *Woordenboek der Jamdeenske taal*. Bandoeng: A. C. Nix.
- Dunnebier, W.  
1951 *Bolaang Mongondowsch-Nederlandsch woordenboek*. The Hague: Nijhoff.
- Dyen, Isidore  
1953 *The Proto-Malayo-Polynesian laryngeals*. Baltimore: Linguistic Society of America.  
1965 'Formosan evidence for some new Proto-Austronesian phonemes', *Lingua* 14:285-305.
- Elkins, Richard E.  
1968 *Manobo-English dictionary*. Oceanic Linguistics Special Publication, 3. Honolulu: University of Hawaii Press.
- Esser, S. J.  
1964 *De Uma-taal (west midden-Celebes)*. The Hague: Nijhoff.
- Ferrell, Raleigh  
1969 *Taiwan aboriginal groups: problems in cultural and linguistic classification*. Institute of Ethnology, Academia Sinica Monograph, 17. Taipei.  
1970 *Paiwan stem vocabulary* (draft). Taipei.
- Fischer, H. Th.  
1966 'Toba Batak kinship terms', *Oceania* 36:253-63.
- Forsberg, Vivian and Alice Lindquist  
1955 *Tagabili vocabulary*. Summer Institute of Linguistics, Philippine Branch. Manila.
- Fortgens, J.  
1921 *Bijdrage tot de kennis van het Sobojo (Eiland Taliabo, Soela-groep)*. The Hague: Nijhoff.
- Fox, James J.  
n.d. Lexicostatistical lists for languages of the Lesser Sunda islands. Typescript.

Geertz, Hildred

- 1972 'Balinese', in: Frank M. LeBar, editor and compiler, *Ethnic groups of insular Southeast Asia, vol. 1: Indonesia, Andaman islands and Madagascar*, pp. 60-65. New Haven: Human Relations Area Files Press.

Geurtjens, H.

- 1921 *Woordenlijst der Keieesche taal*. Verhandelingen van het Bataviaasch Genootschap van Kunsten en Wetenschappen. The Hague: Nijhoff.

Goris, R.

- 1938 *Beknopt Sasaksch-Nederlandsch woordenboek*. The Hague: Nijhoff.

Hardeland, August

- 1859 *Dajacksch-deutsches Wörterbuch*. Amsterdam.

Hasselt, J. L. and F. J. F. van

- 1947 *Noemfoorsch woordenboek*. Amsterdam: J. H. de Bussy.

Headland, Thomas N. and Janet D.

- 1974 *A Dumagat (Casiguran)-English dictionary*. Pacific Linguistics C28. Canberra: Australian National University.

Hudson, Alfred B.

- 1967 *The Barito isolects of Borneo*. Southeast Asia Program data paper, 68. Ithaca, New York: Cornell University Press.  
1970 'A note on Selako: Malayic Dayak and Land Dayak languages in Western Borneo', *The Sarawak Museum Journal* 18:301-18.

Ivens, Walter G.

- 1929 *A dictionary of the language of Sa'a (Mala) and Ulawa, South-East Solomon islands*. London: Oxford University Press.

Jaspan, M. A.

- 1972 'Rejang', in: Frank M. LeBar, editor and compiler, *Ethnic groups of insular Southeast Asia, vol. 1: Indonesia, Andaman islands and Madagascar*, pp. 31-34. New Haven: Human Relations Area Files Press.

Jeng, Heng-hsiung

- 1971 *A Bunun-English dictionary*. Taipei (privately circulated).

Jonker, J. C. G.

- 1908 *Rottineesch-Hollandsch woordenboek*. Leiden: Brill.  
1932 *Lettineesche taalstudien*. Bandoeng: A. C. Nix.

Kähler, Hans

- 1961 *Simalur-Deutsches Wörterbuch mit Deutsch-Simaluresischem Wörterverzeichnis*. Veröffentlichungen des Seminars für Indonesische und Südseesprachen der Universität Hamburg, 3. Berlin: Dietrich Reimer.

Kern, H.

- 1886 *De Fidji-taal vergeleken met hare verwanten in Indonesië en Polynesië*. Verhandelingen van de Koninklijke Akademie van Wetenschappen, 16. Amsterdam.

Koentjaraningrat

- 1972 'Sundanese', in: Frank M. LeBar, editor and compiler, *Ethnic groups of insular Southeast Asia, vol. 1: Indonesia, Andaman islands and Madagascar*, pp. 54-56. New Haven: Human Relations Area Files Press.

Lanyon-Orgill, Peter A.

- 1962 *A dictionary of the Raluana language*. Victoria, B.C.

LeBar, Frank M.

- 1972a 'Batak', in: Frank M. LeBar, editor and compiler, *Ethnic groups of insular Southeast Asia, vol. 1: Indonesia, Andaman islands and Madagascar*, pp. 20-23. New Haven: Human Relations Area Files Press.
- 1972b 'Eastern Sumbanese', in: Frank M. LeBar, editor and compiler, *Ethnic groups of insular Southeast Asia, vol 1: Indonesia, Andaman islands and Madagascar*, pp. 74-77. New Haven: Human Relations Area Files Press.
- 1972c 'Mori', in: Frank M. LeBar, editor and compiler, *Ethnic groups of insular Southeast Asia, vol. 1: Indonesia, Andaman islands and Madagascar*, pp. 141-42. New Haven: Human Relations Area Files Press.
- 1972d 'Western Toradja', in: Frank M. LeBar, editor and compiler, *Ethnic groups of insular Southeast Asia, vol. 1: Indonesia, Andaman islands and Madagascar*, pp. 130-32. New Haven: Human Relations Area Files Press.

Lehmann, Winfred P.

- 1974 *Proto-Indo-European syntax*. Austin: University of Texas Press.

Lewis, M. Blanche

- 1960 'Moken texts and word-list: a provisional interpretation', *Federation Museums Journal* 4 (NS):1-102.

Li, Paul Jen-Kuei

- 1977 'The internal relationships of Rukai', *Bulletin of the Institute of History and Philology*, Academia Sinica, 48:1-92.

Lincoln, Peter C.

- 1977 *Gitua-English vocabulary*. Typescript.

Lister-Turner, R. and J. B. Clark

- 1930 *A grammar of the Motu language of Papua*. 2nd ed, edited by Percy Chatterton. Sydney: Government Printing Office.

Lynch, John

- 1978 'Proto-South Hebridean and Proto-Oceanic'. Paper presented at the *Second International Conference on Comparative Austronesian Linguistics*, Canberra, Australia, January 4-12, 1978.

Maan, G.

- 1940 *Boelisch-Nederlandsche woordenlijst*. Bandoeng: A. C. Nix.

Mabuchi, Toichi

- 1960 'The aboriginal peoples of Formosa', in: George Peter Murdock, editor, *Social Structure in Southeast Asia*, pp. 127-40. Viking Fund Publications in Anthropology, 29.

McKaughan, Howard P. and Batua A. Macaraya

- 1967 *A Maranao dictionary*. Honolulu: University of Hawaii Press.

McManus, Edwin G.

- 1977 *Palauan-English dictionary*. Edited and expanded by Lewis S. Josephs, with the assistance of Masa-aki Emesiochel. PALI language texts: Micronesia. Honolulu: University Press of Hawaii.

Mathijsen, A.

- 1906 *Tetum-Hollandsche woordenlijst met beknopte spraakkunst*. Verhandelingen van het Bataviaasch Genootschap van Kunsten en Wetenschappen 56.2. The Hague: Nijhoff.

Milke, Wilhelm

- 1938 'Die Benennungen der Geschwister in den austronesischen Sprachen ozeaniens', *Zeitschrift für Eingeborenen-Sprachen* 70:51-66.
- 1958 'Ozeanische Verwandtschaftsnamen', *Zeitschrift für Ethnologie* 83:226-29.

- Mills, Roger F.  
1975 *Proto-South Sulawesi and Proto-Austronesian phonology*. Unpublished PhD dissertation, University of Michigan.
- Milner, G. B.  
1966 *Samoan dictionary: Samoan-English, English-Samoan*. London: Oxford University Press.
- Needham, Rodney  
1968 'Endeh: terminology, alliance and analysis', *BKI* 124:305-35.
- Nooy-Palm, C. H. M.  
1972 'Mentawean', in: Frank M. LeBar, editor and compiler, *Ethnic groups of insular Southeast Asia, vol. 1: Indonesia, Andaman islands and Madagascar*, pp. 41-44. New Haven: Human Relations Area Files Press.
- Panganiban, Jose Villa  
1966 *Talahuluganang Pilipino-Ingles*. Manila: Government Printing Office.
- Pateda, Mansoer  
n.d. *Gorontalo-English vocabulary*. Typescript.
- Pawley, Andrew  
1973 'Some problems in Proto-Oceanic grammar', in: George W. Grace et al., eds, *Proceedings of the First International Conference on Comparative Austronesian Linguistics*, pp. 103-88 (= *Oceanic Linguistics* 12). Honolulu.
- Pigeaud, Th.  
1938 *Javaans-Nederlands handwoordenboek*. Groningen: J. B. Wolters.
- Prentice, D. J.  
n.d. *Comparative word-lists for languages of Sabah and Brunei*. Typescript.
- Pukui, Mary Kawena and Samuel H. Elbert  
1971 *Hawaiian dictionary: Hawaiian-English, English-Hawaiian*. Honolulu: University of Hawaii Press.
- Ray, Sidney H.  
1913 'The languages of Borneo', *The Sarawak Museum Journal* 1:1-196.  
1926 *A comparative study of the Melanesian island languages*. Cambridge: The University Press.
- Reid, Lawrence A., ed.  
1971 *Philippine minor languages: word lists and phonologies*. Oceanic Linguistics Special Publication, 8. Honolulu: University of Hawaii Press.  
1976 *Bontok-English dictionary*. Pacific Linguistics C 36. Canberra: Australian National University.
- Reijffert, A.  
1956 *Vocabulary of English and Sarawak Land Dyak (Singhi tribe)*. Kuching: Government Printing Office.
- Schulte-Nordholt, H. G.  
1971 *The political system of the Atoni of Timor*. Verhandelingen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde, 60. The Hague: Nijhoff.
- Scott, N. C.  
1956 *A dictionary of Sea Dayak*. London: School of Oriental and African Studies, University of London.
- Sierevelt, A. M.  
1920 *Woordenlijst van de omgangstaal in West-Seran (Ceram)*. Weltevreden (Batavia): Encyclopaedisch Bureau.

- Sneddon, J. N.  
 1970 'The languages of Minahasa, North Celebes', *Oceanic Linguistics* 9:11-36.  
 1978 'Proto-Minahasan: phonology, morphology and word list', *Pacific Linguistics* B54. Canberra: Australian National University.
- Steller, K. G. F. and W. E. Aebersold  
 1959 *Sangirees-Nederlands woordenboek, met Nederlands-Sangirees register*. The Hague: Nijhoff.
- Stresemann, Erwin  
 1918 *Die Paulohi Sprache*. The Hague: Nijhoff.
- Sundermann, H.  
 1905 *Niassisch-Deutsches Wörterbuch*. Moers: J. W. Spaarmann.
- Topping, Donald M.  
 n.d. *Lexicostatistical lists of Sarawak Land Dayak languages*. Typescript.
- Topping, Donald M., Pedro M. Ogo and Bernadita C. Dungca  
 1975 *Chamorro-English dictionary*. PALI language texts: Micronesia. Honolulu: University Press of Hawaii.
- Tryon, D. T.  
 1976 'New Hebrides languages: an internal classification', *Pacific Linguistics* C 50. Canberra: Australian National University.
- Tsuchida, Shigeru  
 1976 *Reconstruction of Proto-Tsouic phonology*. Study of Languages and Cultures of Asia and Africa Monograph Series, 5. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.
- Vanoverbergh, Morice  
 1972 *Isneg-English vocabulary*. Oceanic Linguistics Special Publication, 11. Honolulu: University Press of Hawaii.
- Verhaar, J. W. M.  
 1978 'Syntactic (in)alienability in Indonesian'. Paper presented at the *Second International Conference on Comparative Austronesian Linguistics*, Canberra, Australia, January 4-12, 1978.
- Verheijen, J. A. J.  
 1967 *Kamus Manggarai, 1: Manggarai-Indonesia*. The Hague: Nijhoff.
- Wallace, Alfred R.  
 1869 *The Malay archipelago*. 2 vols. London: Macmillan.
- Warneck, Joh.  
 1977 *Toba Batak-Deutsches Wörterbuch*. Neu herausgegeben von R. Roolvink. The Hague: Nijhoff.
- Warren, Charles P.  
 1959 *A vocabulary of the Batak of Palawan*. Transcript 7, Philippine Studies Program. University of Chicago.
- Wilkinson, R. J.  
 1959 *A. Malay-English dictionary (romanised)*. London: Macmillan.
- Williams, H. W.  
 1971 *A dictionary of the Maori language*. Wellington, New Zealand: Government Printing Office.

Wolff, John U.

- 1972 *A dictionary of Cebuano Bisayan*. Philippine Journal of Linguistics Special Monograph Issue, 4. Manila: Linguistic Society of the Philippines.

Zorc, R. David

- 1978 'Proto-Philippine accent: innovation or Proto-Hesperonesian retention?' Paper presented at the *Second International Conference on Comparative Austronesian Linguistics*, Canberra, Australia, January 4-12, 1978.