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In: *Bijdragen tot de Taal-, Land- en Volkenkunde* 140 (1984), no: 4, Leiden, 422-450

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ON THE HISTORY OF THE REJANG VOWELS AND DIPHTHONGS*

Abstract

The development of the Proto-Austronesian (PAN) vowels in Rejang is of interest for two reasons. First, it exemplifies a pattern of phonemic splits, shifts and mergers of unusual complexity for an Austronesian (AN) language. Second, it shows that this pattern and exceptions to it cannot be stated in full without reference to semantic conditions. In connection with the first point Dyen (1949) described the development of the PAN vowels in Trukese. His central concern was to state the conditions under which a reconstructed four vowel system could be mapped systematically onto an attested nine vowel system. Superficially the history of the Rejang vowels appears simpler, as Rejang has only six vowel contrasts. However, the PAN vowels have in fact undergone more splits in Rejang than in Trukese. This greater diachronic complexity is partially reflected in a wealth of diphthongs possibly unequalled in any other AN language. In connection with the second point the often-heard assertion that meaning-based exceptions to sound change do not exist appears to conflict with the exceptional character of the Rejang pronouns and perhaps the kinship terms in relation to otherwise well-established phonological changes.

Background

Rejang (in the Dutch and some English literature: Redjang) is the language of some 200,000 persons concentrated in the fertile highland valleys and plateaus of the Barisan Range, and extending for about

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* I am indebted to Richard McGinn, D. J. Prentice, H. Steinhauer and P. Voorhoeve for valuable criticisms of an earlier version of this paper. They are, however, in no way responsible for the accuracy of my data or the soundness of my conclusions.

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100 km. along the Indian Ocean coast to the north of Bengkulu in southwest Sumatra. According to Voorhoeve (1955) it is closely related to Malay, but given the longstanding political and economic importance of the latter language in south Sumatra this impression is doubtless due in part to a prolonged history of unilateral lexical borrowing.¹

Although the recent publication of a theoretically-oriented syntax by McGinn (1982) and the planned publication of a dictionary by Jaspan (ms.) promise to alter the existing situation substantially, Rejang remains at present among the least known languages of Sumatra. A few older works of limited scope and reliability provide some textual material and vocabulary. These are reviewed succinctly by Voorhoeve (1955). More recently Coady and McGinn (1982) and McGinn (1982) have devoted some attention to problems in the synchronic phonology, most notably to the phonetic realization and phonological interpretation of the "barred nasals".

In November, 1980, while at Tugu, west Java, I was able to collect a vocabulary of somewhat over 300 words in phonetic transcription, together with a limited number of inflectional paradigms from two speakers of Rejang. The first of these (Atika S. M.) was a native speaker of Bengkulu Malay who had lived among Rejang speakers and acquired fluency in the Lebong dialect. The second (Endarwati J.) was a native speaker of what she described as "Rejang Rejang".² The following analysis, which draws on this material, is intended to address a problem in the historical phonology of Rejang – an area that has until now been all but totally neglected.

1. *Synchronic phonology*

Both dialects of Rejang that I recorded have the following inventory of consonants and vowels. Various details not relevant to the aims of the present paper are omitted:

<i>consonants</i>					<i>vowels</i>		
p	t	c	k	?	i		u
b	d	j	g		e	ə	o
m	n	ñ	ŋ			a	
m̄	n̄	ñy	ŋ̄				
	s						
	l						
	(r)						
w	y						

In my material *c* is rare and *r* is restricted to suspected loanwords.³ Voiced obstruents do not occur word-finally, the glottal stop does not occur initially, and *k* is of very low frequency in final position. In accordance with inherited phonotactic constraints palatals may not occur word-finally, sequences of like vowels or of shwa followed by another vowel (as distinct from the diphthong /əa/) do not occur, and the

“barred nasals” (which derive from prenasalized voiced obstruents) are restricted to medial position. With the possible exception of *boa?* “fruit” (where -oa- can be interpreted as a vowel sequence or as a diphthong), the vowels *e* and *o* in the penult imply a like vowel in the ultima. A high and a mid vowel of the same value for frontness may not occur in successive syllables. Thus the sequences *i . . . e*, *e . . . i* and *u . . . o*, *o . . . u* are disallowed, although other combinations of high and mid vowels are permitted (e.g. *putea?* “white”, *tidoa* “sleep”). To judge from *buayo* “crocodile”, a high and a mid vowel of the same value for frontness may occur within a morpheme so long as there is an intervening neutral syllable. Finally, although they contrast frequently in non-final syllables, last-syllable shwa and *a* exhibit a complex near-complementation. Except in the pronouns (*ita*, *nə*) last-syllable shwa does not occur before glottal stop, *ŋ* or word boundary. In disyllables last-syllable *a* almost always precedes glottal stop or *ŋ* (*təlan* “bone” is a rare exception). In monosyllables *a* may precede other final consonants (*dan*, *kan*, *pat*), where it occasionally contrasts with *ə*: *yam-yam* “toy”, *ləm* “inside”.

Segments have their expected phonetic values, except as qualified below. The phonetic realization of the barred nasals is discussed at length by Coady and McGinn (1982), and need not be reviewed here. A similar phonation type is reported for Bintulu and Narum of northern Sarawak in Blust (1974).

Coady and McGinn (1982:448) attribute four diphthongs to Rejang Musi (*ey* [əy], *ew* [əw], *ay*, *aw*), as well as a number of vowel sequences (e.g. -*oe* in *opoe* “fire”). However, McGinn notes (personal communication) that vowel sequences in Rejang Musi often correspond to true diphthongs in Rejang Lebong (e.g. *opoy* “fire”). Historically it is clear that these correspondences either reflect diphthongs, or are the outcome of a process of breaking. The candidates in my material are as follows:

	RL	RR	<i>examples</i>	<i>English</i>
1.	ie	ie	atie	liver
2.	uo	uəw	kiduo/kiduəw	left (side)
3.	ea	ea	elea	downstream
4.	əy	əy	matəy	eye
5.	əw	əw	susəw	breast
6.	əa	əa	daləa?	blood
7.	oy	oy	opoy	fire
8.	oa	oa	tidoa	sleep
	oa	uəw	danoa/danuəw	lake
9.	ay	ay	kəlay	split

The following phonetic observations are noteworthy: /*e*/ normally surfaces as [ɛ]. Before a vowel, however, it appears as [e], and any other /*e*/ in the word has a similar realization. Thus /*epen*/ = [ɛpɛn] “tooth”, but /*kekea*/ = [kekea] “foot, leg”. The diphthongs -*ie* and -*ea*(-) are therefore respectively [iɛ] and [ea].

Rejang Rejang *-uəw* is phonetically a triphthong. To interpret it as such phonologically we must recognize a structural anomaly in this dialect – one which is absent in Rejang Lebong speech as I recorded it. Although rare in Austronesian languages generally, two triphthongs were reported for Kiput of northern Sarawak in Blust (1974).

The sequence *-əa-* was heard only word-finally and before a final glottal stop, where it is relatively frequent. In RL the nucleus of this diphthong was recorded as a high-central vowel [ɨ], and in RR as a high back unrounded vowel [ʉ]. Neither phonation type is attested as an independent vowel (/ə/ is otherwise mid-central).⁴

I recorded no instances of *-aw*, but this may be due to the limitations of my data.

2. Diachronic phonology

Appendix 1 provides a relatively complete list of directly inherited Rejang forms in my data with a demonstrable etymology (known loan-words have been eliminated). Numbers in the following discussion refer to this material.⁵

To anticipate briefly, some Rejang morphemes show only a single consonant or vowel change, and their relationship to the cognate form in a phonologically less innovative language such as Malay remains transparent. Other morphemes show two, three or more segmental changes, and as these increase so does the phonemic divergence of cognate forms until cognation is no longer obvious on inspection, as with the items under (4) in Table 1:

Table 1
Examples of increasing phonemic divergence between demonstrable cognates in Rejang and Malay

Number of differences	Rejang	Malay	PMP	English
(1)	matəy susəw	mata susu	mata susu	eye breast
(2)	ñabəy tiləy	ñawa tali	ñawa tali	breathe rope, string
(3)	daləa? oloa	darah (h)ulur	(d)aRaQ SuluR	blood to lower
(4)	biləy bioa	(h)ari air	waRi waSiR	day fresh water

2.1. *Consonant changes.* Based on the data of Appendix 1 the following regular consonant changes can be formulated:

- (1) the PMP “laryngeals” *S and *h disappeared unconditionally:

*Sasaq > *asaa*? “whet, sharpen”

(also: 10, 13, 58, 72, 125, 185)

*buSek > *bu*? “head hair”

(also: 14, 23, 34, 51, 56, 79, 91, 92, 113, 118, 122)

*hapuy > *opoy* “fire”

(also: 73, 135)

*bahi “female” > *bie* “female (animals)”

*talih > *tiləy* “rope, string”

(also: 190)

(2) the PMP “laryngeal” *q > ? in final position, but otherwise disappeared:

*putiq > *putea*? “white”

(also: 9, 17, 21, 23, 36, 37, 46, 53, 78, 98, 101, 107, 108, 112, 117, 136, 137, 141, 142, 146, 167, 183, 187, 199)

*qabu > *abəw* “ash”

(also: 7, 11, 12, 60, 68, 107, 126, 127, 129, 139, 160, 176, 194, 195, 196, 198, 201)

*tuqah > *tuəy* “old”

(also: 22, 25, 26, 28, 38, 49, 116, 138, 141, 152, 157, 170, 173, 175, 180, 190)

(3) PMP *k > ? in final position, but remained unchanged initially and intervocalically:

*anak > *ana*? “child”

(also: 13, 27, 32, 43, 44, 71, 88, 95, 115, 118, 124, 129, 148, 161, 178, 184, 193, 200)

*kawit > *kewet* “hook”

(also: 77, 78, 80, 81, 82, 83, 85, 86, 87, 90, 91, 92, 93, 94, 95)

*aku > *uku* “I”

(also: 39, 57, 58, 59, 69, 78, 79, 150, 172, 181)

(4) PMP *w > *b* in initial position. Intervocalically *w normally remained unchanged, but became *b* in one known form, and disappeared in another through a sequence of apparently regular changes:

*waRi > *biləy* “day”

(also: 16, 34)

*Sawak > *awa*? “body”

(also: 83, 84, 89, 98, 171)

*ñawa > *ñabəy* “breathe”

*ka-wanan (> *kəwanan* > *kuanan* > *kəanan* > *kanan*) > *kanən* “right (side)”

(5) PMP and pre-Rejang *ñ sometimes became *n* and sometimes remained unchanged, under unstorable conditions:

*ni-a (> *ña*) > *nə* “his, her, its”

(also: 122)

*ma-qañud > *monot* “drift”

*ñamuk > *ñamu?* (RL), *ñomo* (RR) “mosquito”
(also: 123)

(6) Intervocalic PMP *R sometimes became *l* and sometimes disappeared unpredictably. In other positions it invariably disappeared. A resulting sequence of like vowels or of unlike vowels the first of which was shwa contracted in a trisyllable. In a disyllable the vowels were retained, but separated by glottal stop:

*baqRu > *bələw* “new”

(also: 16, 31, 46, 54, 106, 112, 160)

*baRani > *binəy* “courageous”

*buRuk > *bu?u?* “decayed”

(also: 26, 87, 143, 157, 183)

*Rakit > *eket* “raft”

(also: 130, 199)

*aluR > *aloa* (RR) “flow”

(also: 19, 34, 55, 60, 69, 105, 120, 125, 127, 176, 177, 179)

(7) PMP *r disappeared unconditionally:

*(r)*imba* > *iṃo* “forest”

*tirus > *tius* “tapering”

(also: 76)

*bener > *bənəa* “true, correct”

(8) PMP *l disappeared in final position, but otherwise did not normally change:

*gatel > *gata* “itch”

(also: 29, 83, 189)

*laŋit > *leŋet* “sky”

(also: 96, 97, 99, 100, 101, 102, 103, 104, 105, 106)

*bales > *balas* “repay”

(also: 2, 3, 32, 40, 41, 47, 48, 53, 60, 66, 90, 107, 125, 126, 137, 141, 146, 151, 156, 159, 166, 173, 174, 182, 198)

(9) PMP *Z > *d* word-initially, but *j* intervocalically:

*Zalan > *dalən* “path, road”

(also: 54)

*quZan > *ujən* “rain”

(also: 155, 187)

(10) In the two examples recorded *z > *j* both initially and intervocalically:

*zari > *jiəy* “finger”

*tazem > *tajəm* “sharp”

(11) PMP *D became *d* in non-final position. In final position it disappeared, probably after having first merged with *r and *R:

*Danaw > *danoa/danuəw* “lake”

(also: 56)

*tiDuR > *tidoa* “sleep”

(also: 68, 195)

- *tawad > *tawə* "bargain, haggle"
- (12) In the only example recorded PMP *T became t:
*TukTuk > *tutu?* "to pound, as rice"
- (13) PMP *j became g:
*qapeju > *pəgəw* "gall (bladder)"
(also: 47, 126, 149, in connection with (14))
- (14) Voiced stops were devoiced in final position:
*bukid > *bukit* "hill"
(also: 47, 116, 126, 149, 188)
- (15) Prenasalized voiceless obstruents reduced to the simple obstruent:
*kempu > *kəpəw* "grandchild"
(also: 35, 107, 158, 161, 188, 189)
- (16) Prenasalized voiced obstruents shifted to the corresponding "barred nasal":
*embun "dew" > *əmun* "cloud"
(also: 70, 71, 134, 144, 148, 184)
- (17) The first of successive consonants in a reduplicated monosyllable was dropped:
*tektek > *təto?* "chop, hack"
(also: 85, 193)

The following irregular consonant changes have been noted:

- 1) *k- > g : *kutu > *gutəw* (RR) "louse"
- 2) *b- > Ø : *busuk > *usu?* "putrid"⁶
- 3) *d- > t : *deŋeR > *teŋoa* "hear"
- 4) *-j- > ? : *qajeŋ > *aʔaŋ* "charcoal"
> Ø : *pajey > *pae* "riceplant"
- 5) *l- > d : *lalej > *dalək* "housefly"
- 6) *-l- > n : *qateluR > *tənoa* "egg"
- 7) *n- > m : *nipsis > *mipis* (RR) "thin, of materials"

All other consonants remain unaltered.

2.2. *Vowel changes.* Proto-Malayo-Polynesian, like Proto-Austronesian, had four contrastive vowels: a, e (= shwa), i and u. The Rejang reflexes of these vowels are treated in turn below.⁷

A striking feature of Rejang historical phonology is the existence of various seemingly only semi-regular assimilation processes which align the frontness and height of vowels in successive syllables. Once the phonological conditions for assimilation have been worked out in more detail these processes are seen to be largely regular. However, a residue of exceptions remains, and in discussing assimilatory changes it will be convenient to distinguish "assimilating stems" from "non-assimilating stems".

*a :

Under varying conditions PMP *a is reflected as each of the six Rejang vowels, as two of the diphthongs and as zero. Conditions are as follows:

(1) *a > i. The pre-Rejang sequence -aCi > -iCəy:

*waRi	> biləy	"day"
*baRani	(> bani)	> binəy "courageous"
*zari	> jiaj	"finger"
*laRiw	(> laRi)	> liləy "run"
*talih	(> tali)	> tiləy "rope, string"

Where the final syllable was closed or where C was a laryngeal (which was lost) this change did not occur: e.g. *tinaqi > *tenie* "stomach". A similar change is attested in a somewhat different environment in two or perhaps three forms:

*waSiR	(> waiR	> wayər)	> bioa	"fresh water"
*kaSiw	(> kaiw	> kayu)	> kiuəw/kiuo	"wood"

The change *daSun (> daun) > *dawən* "leaf" suggests that Rejang, like a number of other AN languages, reanalyzed the (in this case historically secondary) interconsonantal sequences -au- and -ai- as -awə- and -ayə- respectively. It is thus likely that pre-Rejang reflexes of *waSiR and *kaSiw both contained a medial y. If so, the change -a > i in these forms may have been conditioned by the semivowel. Further support for this suggestion is found in *lain (> layən > liyən) > *leyen* "other, different". However, neither *buqaya > *buayo* "crocodile" nor *qayam > *yam-yam* "toy" exhibit such a change.

(2) *a > u. Except in *qabu > *abəw* "ash", the pre-Rejang sequence -aCu > -uCəw:

*batu	> batəw (RL), butəw (RR)	"stone"
*sapu	> supəw	"broom"

Where the final syllable was closed or where C was a laryngeal (which was lost) this change did not occur (cf. (4) below), and in pronouns the final vowel remained unchanged (*aku > *uku* "I", *kamu > *kumu* "you (pl.)").

(3) *a > e. In assimilating stems the PMP sequence -aCiC > -eCeC or -eCea:

*baniŋ	> benen	"tortoise"
*Rakit	> eket	"raft"
*kawil	> kewea	"fishhook"
*kawit	> kewet	"hook (in general)"
*laŋit	> lenet	"sky"

This change was not recorded for any example of the PMP sequence -iCaC, though it was recorded for the sequence -iCeC (see below). Similarly, the change *lain > *leyen* "other, different" apparently reflects a development through intermediate **layən and **liyən (see discussion of *waSiR above). However, a semivowel did not develop in *naSik > *ne*? "climb" or *paqit > *pet* "bitter".

The change **panDak* > *peñe*? “short” is puzzling, though this may be a borrowing of Malay *péndék*. Finally, **kami* > *keme* “we (excl.)” involves special conditions to be discussed below.

(4) **a* > *o*. This change occurred under two unrelated conditions. First, in assimilating stems the PMP sequence *-aCuC* > *-oCoC* or *-oCoa*:

<i>*ZaRum</i>	> <i>dolom</i>	“needle”
<i>*dapuR</i>	> <i>dopoa</i>	“hearth”
<i>*manuk</i>	> <i>mono?</i>	“chicken, fowl”
<i>*ma-qañud</i> (> <i>mañud</i>)	> <i>monot</i>	“drift”
<i>*ñamuk</i>	> <i>ñamu?</i> (RL), <i>ñomo?</i> (RR)	“mosquito”
<i>*qapuR</i>	> <i>opoa</i>	“lime”
<i>*hapuy</i>	> <i>opoy</i>	“fire”
<i>*Ratus</i>	> <i>otos</i>	“hundred”
<i>*saburj</i>	> <i>soborj</i>	“cockfight”

The conditions for this change parallel those for the change **a* > *e*: the PMP sequence *-uCaC* does not show assimilation, but assimilation does occur in the sequence *-uCeC* (see below), and in **punay* > *ponoy* “dove”. As with **kami* > *keme*, the idiosyncratic development in **kaSu* > *ko* “you (sg.)” involves special conditions to be discussed below.

Second, **a* sporadically, but recurrently became *o* in final position:

<i>*buqaya</i>	> <i>buayo</i>	“crocodile”
<i>*(r)imba</i>	> <i>iñō</i>	“forest”
<i>*lima</i>	> <i>lamo</i>	“five”
<i>*teka</i>	> <i>tako</i>	“come, arrive”

(5) **a* > *ə*. This change took place in the environment *C₁-C₂* of non-assimilating stems, where *C₂* was word-final:

<i>*Sasap</i>	> <i>asəp</i>	“smoke”
<i>*beReqat</i>	> <i>bə?ət</i>	“heavy”
<i>*bulat</i>	> <i>bulət</i>	“round”
<i>*Zalan</i>	> <i>dalən</i>	“path, road”
<i>*gilap</i>	> <i>gələp</i>	“lightning”
<i>*ka-wanan</i> (> <i>kanan</i>)	> <i>kanən</i>	“right (side)”
<i>*taŋan</i>	> <i>taŋən</i>	“hand”
<i>*quZan</i>	> <i>ujən</i>	“rain”

In addition to the above environment **a* became shwa in prepenultimate position:

<i>*baqeRu</i>	(> <i>bəqəru</i>)	> <i>bələw</i>	“new”
<i>*p-al-aqepaq</i>	> <i>pələpəa?</i>		“palm frond”

The shift of **a* to *ə* in **ita* > *itə* “we (incl.)” and **ni-a* (> *ñā*) > *nə* “his, her, its” involves special conditions to be discussed below.

(6) **a* remained unchanged under the following conditions:

a) in the penult of non-assimilating stems:

<i>*qabu</i>	> <i>abəw</i>	“ash”
<i>*qatey</i>	> <i>atie</i>	“liver”
<i>*(d)aRaq</i>	> <i>daləa?</i>	“blood”

*kabut	> <i>kabut</i>	"fog"
*laŋaw	> <i>laŋuəw</i> (RR)	"horsefly"
*tanem	> <i>tanəm</i>	"plant, bury"
b) in the final syllable if it preceded a PMP velar:		
*anak	> <i>ana?</i>	"child"
*Sawak	> <i>awa?</i>	"body"
*bataŋ	> <i>bataŋ</i>	"log, tree trunk"
*bintaŋ	> <i>bitaŋ</i>	"star"
*Sisaŋ	> <i>isaŋ</i>	"gills"
*esak	> <i>k-əsa?</i>	"cooked"
*sintak	> <i>sita?</i>	"jerk, pull suddenly"
*quDaŋ	> <i>udaŋ</i>	"shrimp, lobster"

*a also remained unchanged in several non-assimilating stems in which we would have expected a shwa, and in several forms in which it would regularly have become a diphthong:

*daqan	> <i>dan</i>	"branch"
*iSekan	(> <i>əkan</i>) > <i>kan</i>	"fish"
*hepat	> <i>pat</i>	"four"
*tuqelaN	> <i>təlan</i>	"bone"
*qayam	> <i>yam-yam</i>	"toy"
*bapa-q	> <i>bapa?</i>	"father"
*buaq	> <i>boa?</i>	"fruit"
*kaka-q	> <i>kaka?</i>	"elder brother"
*mama-q	> <i>mama?</i>	"FyB, MyB"

Rejang *dan* may reflect earlier **daʔən, with contraction of the sequence -aʔə- to *a* after the loss of ʔ, and *boa?* (expected **buaəʔ) appears to have been assimilated to the pattern of stems that originally ended in -uq (*bunuq > *bonoa?*, *puluq > *poloa?*). As will be seen, several of the exceptional reflexes of forms ending in *-aq probably conform to a subregularity.

(7) *a > əy. As noted under (4), *a sporadically but recurrently became *o* in final position. Apart from the four examples of this change that were recorded, I transcribed seven examples of the change *-a > əy, which must therefore at least tentatively be considered the regular development:

*buŋa	> <i>buŋəy</i>	"flower"
*DuSa	> <i>duəy</i>	"two"
*tawa	> <i>kə-tawəy</i>	"laugh"
*mata	> <i>matəy</i>	"eye"
*ñawa	> <i>ñabəy</i>	"breathe"
*qasiRa	> <i>siləy</i>	"salt"
*tuqah	> <i>tuəy</i>	"old"

(8) *a > əa. This change is attested before final *q (which was retained), and before final *D (which was lost):

* <i>(D)aRaq</i>	> <i>daləa?</i>	“blood”
* <i>dilaq</i>	> <i>diləa?</i>	“tongue”
* <i>qali-metaq</i>	> <i>litəa?</i>	“leech”
* <i>ma-iRaq</i>	> <i>miləa?</i>	“red”
* <i>um-utaq</i>	> <i>mutəa?</i>	“vomit”
* <i>pataq</i>	> <i>patəa?</i>	“break”
* <i>Rumaq</i>	> <i>uməa?</i>	“house”
* <i>tawaD</i>	> <i>tawəa</i>	“bargain, haggle”

(9) Prepenultimate *a disappeared if it was originally initial, or if it followed a laryngeal:

* <i>qali-metaq</i>	> <i>litəa?</i>	“leech”
* <i>qapeju</i>	> <i>pəgəw</i>	“gall (bladder)”
* <i>qasiRa</i>	> <i>siləy</i>	“salt”

Prepenultimate *a similarly disappeared if it originally preceded a semivowel, vowel or laryngeal:

* <i>ka-wanan</i>	> <i>kanən</i>	“right (side)”
* <i>ma-iRaq</i>	> <i>miləa?</i>	“red”
* <i>ma-qañud</i>	> <i>monot</i>	“drift”

*e:

PMP *e (shwa) is reflected as three of the Rejang vowels, as two of the diphthongs and as zero. Conditions are as follows:

(1) *e > *e*. In assimilating stems the PMP sequence -*iCeC* > -*eCeC*:

* <i>Siket</i>	> <i>eket</i>	“to tie”
* <i>ipen</i>	> <i>epen</i>	“tooth”
* <i>isep</i>	> <i>esep</i>	“suck”
* <i>inem</i>	> <i>m-enem</i>	“drink”

(2) *e > *o*. In assimilating stems the PMP sequence -*u(N)CeC* > *oCoC*:

* <i>qulej</i>	> <i>olok</i>	“maggot”
* <i>qutek</i>	> <i>oto?</i>	“brain”
* <i>pusej</i>	> <i>posok</i>	“navel”
* <i>tunʔked</i>	> <i>tokot</i>	“staff, cane”

The possible relationship of the preceding two changes to changes (3) and (4) under *a is an absorbing question. Although the two sets of changes share an obvious similarity, the details show interesting differences. Table 2 summarizes the occurrence of assimilating and non-assimilating stems for the four PMP vowel patterns in question and their mirror-images:

Table 2

Distribution of assimilating stems (AS) and non-assimilating stems (NS) for eight PMP vowel patterns:⁸

set	pattern	AS	NS
1)	a...i	7	2
	a...u	9	4
2)	i...a	Ø	13
	u...a	1	6
3)	e...i	Ø	5
	e...u	Ø	6
4)	i...e	5	3
	u...e	4	1

The vowel patterns of Table 2 can be further grouped into four sets: 1) *a plus high vowel, 2) high vowel plus *a, 3) *e plus high vowel and 4) high vowel plus *e. These groupings display a near complementation that appears to be statistically significant. In 16/22, or 73% of the recorded cases Set 1 undergoes assimilation, whereas in 19/20, or 95% of the recorded cases Set 2 does not. The pattern with *e is almost the reverse of this: in all 11 recorded cases Set 3 is non-assimilating, while in 9/13, or 69% of the recorded cases Set 4 is assimilating.

In certain respects it would be attractive to assign assimilating and non-assimilating stems in Rejang to distinct lexical strata. Under this interpretation non-assimilating stems would be seen as loans, primarily from Malay, which entered the language after assimilation took place. Although Malay loans undoubtedly are found in some numbers in Rejang, this hypothesis unfortunately provides no explanation for the high degree of complementation seen in Table 2, and so is at best incomplete. Given the pattern summarized in Table 2 there would seem to be little question that penultimate *a and *e followed by a high vowel syllable peak (Sets 1 and 3) behaved differently with respect to assimilation: the former assimilated, while the latter did not. Exceptions to this pattern will be discussed below.

The question whether Sets 2 and 4 also behaved differently from one another with regard to assimilation is more complicated. As noted earlier, although /a/ and /e/ clearly are distinguished in penultimate position, they are only marginally contrastive in final syllables. Given this observation we might suspect that in pre-Rejang, as in contemporary standard Malay, last-syllable *a and *e had merged. If so, Sets 2 and 4 in Table 2 could be treated as a single environment in which assimilation occurred sporadically (10 of the 33 recorded stems). This interpretation, however, not only would admit a great deal of sporadic change, but would also obscure a significant difference in the patterning

of the two sets: apart from *punay > *ponoy* "dove", forms belonging to Set 2 never assimilate, whereas members of Set 4 generally do.

If we assume that *a and *e remained distinct in pre-Rejang a more regular statement becomes possible: assimilation occurred in vowel sets 1 and 4, but not in vowel sets 2 and 3. There are 11 apparent exceptions among the 63 forms considered. Six of these can plausibly be regarded as recent Malay loans: 1. *aŋin* "wind", 2. *kabut* "fog", 3. *laut* "sea", 4. *piŋəm* "borrow", 5. *pukət* "dragnet" and 6. *taun* "year". Three of the five remaining forms could be Malay loans that preceded loss of pre-Rejang final *r*: *alea* (RL), *aloe* (RR) "flow", *libae* "wide". The remaining anomalous forms (*ponoy* "dove", *sə-kijap* "blink") are unexplained.

(3) *e > ə. Shwa normally remained unchanged in non-assimilating stems if it was not initial, and did not precede a final *q or a final consonant that was lost:

*qatep	> atəp	"thatch"
*bener	> bənəa	"true, correct"
*keRin	> kəʔin	"dry"
*lem	> ləm	"inside"
*lesun	> ləsun	"rice mortar"
*reRes	> pəʔəs	"squeeze"
*tazem	> tajəm	"sharp"

(4) *e > əa. Before final *q, *r and in some cases *R, *e changed to the diphthong əa:

*bener	> bənəa	"true, correct"
*libeR	> libəa	"wide"
*taneq	> tanəaʔ	"earth"

PMP *-aq and *-eq both appear as Rejang -əaʔ, and it is likely that *a and *e had already merged before final *q prior to breaking.

(5) *e > oa. In two other cases the pre-Rejang sequence -er became oa:

*waSiR	(> wayər) > bioa	"fresh water"
*deŋeR	> tənəoa	"hear"

(6) *e disappeared under at least three distinct conditions. Under the first condition *e in the environment VC_CV syncopated, producing a consonant cluster that was later simplified:

*baqeRu	(> bəʔəRu > bəʔru > bəru) > bələw	"new"
*qali-metaq	> litəaʔ	"leech"
*tuqelaN	> təlan	"bone"
*timeRaq	> timəaʔ	"tin"

Under the second condition *e was absorbed by another vowel following the loss of a laryngeal consonant that originally separated them:

*buSek	> buʔ	"head hair"
*iSekan	> kanʔ	"fish"
*mi-Sepi	> mipəy	"dream"

Under the third condition *e was sometimes lost in initial position or following an initial laryngeal (which was lost):

*emis	> <i>mis</i>	"sweet"
*hepat	> <i>pat</i>	"four"

For unknown reasons *e was retained in *embun > *əmun* "cloud" and *enem > *ənum* "six", where last-syllable *e is reflected inexplicably as *u*.

*i:

PMP *i is reflected as three of the Rejang vowels and two of the diphthongs. Conditions are as follows:

(1) *i > *i*. In non-assimilating stems *i remained unchanged if it was not prepenultimate or final, and if it did not precede *q or a liquid in final position:

*bitiqis	> <i>bətis</i>	"calf of the leg"
*dilaq	> <i>diləa?</i>	"tongue"
*ikuR	> <i>ikoa</i>	"tail"
*niuR	> <i>nioa</i>	"coconut palm"
*nipis	> <i>mipis</i> (RR), <i>nipis</i> (RL)	"thin, of materials"
*sempit	> <i>səpit</i>	"narrow"

(2) *i > *e*. In assimilating stems the PMP sequences -aCiC and -iCeC > eCeC, as already described in earlier sections and summarized in Table 2. In addition, penultimate *i became *e* when a last-syllable *i was lowered (cf. change (5) below).

(3) *i > *ə*. In prepenultimate position *i > *ə*:

*bineSiq	> <i>bənea?</i>	"seed (for planting)"
*bitiqis	> <i>bətis</i>	"calf of the leg"
*tinaqi	> <i>tənie</i>	"stomach"

In final position *i > *əy*:

*waRi	> <i>biləy</i>	"day"
*baRani	> <i>binəy</i>	"courageous"
*hisi	> <i>isəy</i>	"contents"
*zari	> <i>jiəy</i>	"finger"
*talih	(> <i>tali</i>) > <i>tiləy</i>	"rope, string"
*qubi	> <i>ubəy</i>	"yam"

(4) *i > *ea*. *i became *ea* before final *q (which was retained) and before final liquids (which disappeared):

*bineSiq	> <i>bənea?</i>	"seed (for planting)"
*lebiq	> <i>ləbea?</i>	"excess"
*piliq	> <i>pelea?</i>	"choose"
*putiq	> <i>putea?</i>	"white"
*aliR	> <i>alea</i> (RL)	"flow"
*iliR	> <i>elea</i>	"downstream"
*kawil	> <i>kewea</i>	"fishhook"

As noted earlier, vowels in contemporary Rejang are subject to height harmony, such that a mid vowel and a high vowel of the same frontness

may not occur in successive syllables. Historically the lowering of high vowels in the final syllable thus resulted in harmonic lowering of the penultimate vowel in e.g. *piliq > *pelea?* or *iliR > *elea*, but not in *putiq > *putea?* or *ikur > *ikoa* (where the original high vowels differed in frontness).

The possible partial relationship between mutual vowel assimilation (discussed earlier) and height harmony, is a matter of some interest. As seen in Table 2, in assimilating stems the PMP sequence -aCiC or -aCuC became -eCeC/eCea or -oCoC/oCoa respectively. The inclusion of such derivations as *dapuR > *dopoa* 'hearth', *qapuR > *opoa* 'lime' and *kawil > *kewea* 'fishhook' under 'assimilating stems' implies lowering of the high vowel by simultaneous mutual assimilation. However, on this interpretation the similar lowering in *iliR > *elea* 'downstream', *SuluR > *oloa* 'to lower' or *piliq > *pelea?* 'choose' is unrelated – the product of a historically distinct development (changes 2 and 4 rather than change 1 below):

	laŋit	iliR	piliq	schema 1
1.	<i>leŋet</i>			mutual assimilation
2.		ileR	pile?	final lowering
3.		ileaR	pilea?	breaking
4.		eleaR	<i>pelea?</i>	harmonic lowering
5.		<i>elea</i>		loss of final liquids

Alternatively, the mutual vocalic assimilation seen in e.g. *laŋit > *leŋet* could be viewed as the product of two sequential changes (1 and 4 below);

	laŋit	iliR	piliq	schema 2
1.	<i>leŋit</i>			partial assimilation
2.		ileR	pileq	final lowering
3.		ileaR	pilea?	breaking
4.	<i>leŋet</i>	eleaR	<i>pelea?</i>	harmonic lowering
5.		<i>elea</i>		loss of final liquids

Schema 2 differs from schema 1 in suggesting that Rejang vowel harmony is the product of a single historical change rather than the result of a 'conspiracy' of structurally heterogeneous changes. As can be seen, however, the overall derivation in schema 2 is no simpler or more complex than that in schema 1, and there appears to be no strongly motivated basis for choosing between these alternatives.

In addition to the above regular changes, *i has sporadically become schwa in the penult of several words. Those noted are:

*gilap	> <i>gəlap</i>	“lightning”
*lima	> <i>ləmo</i>	“five”
*silun	> <i>səlon</i>	“fingernail”

A fourth likely example of the same change is *iSekan > *kan* “fish”, possibly through pre-Rejang **əkan, with semi-regular loss of initial shwa.

Finally, the absorption of *i by the preceding nasal in *ni-a (> *ñā*) > *nə* and *ni-Su (> *niu* > *ñu*) > *nu* (but not in e.g. *niuR > *nioa*) is paralleled by many other languages.

*u:

PMP *u is reflected as three of the Rejang vowels and two of the diphthongs, parallel to *i. Conditions are as follows:

(1) *u > *u*. In non-assimilating stems *u remained unchanged if it was not prepenultimate or final, and if it did not precede *q or a liquid in final position:

*buRuk	> <i>bu?u?</i>	“decayed”
*DuSa	> <i>duəy</i>	“two”
*lesuŋ	> <i>ləsuŋ</i>	“rice mortar”
*pulut	> <i>pulut</i>	“bird lime”
*quDaŋ	> <i>udaŋ</i>	“shrimp, lobster”

(2) *u > *o*. In assimilating stems the PMP sequences -aCuC and -uCeC > -oCoC, as already described in earlier sections and summarized in Table 2. In addition, penultimate *u became *o* when a last-syllable *u was lowered (cf. change (5) below).

(3) *u > *ə*. Prepenultimate *u apparently became *ə*, parallel to the change of *i in this position:

tuqelaN	> <i>təlan</i>	“bone”

Although no other examples of this change were recorded, the likelihood that it occurred is increased by the parallel change of prepenultimate *i, by the neutralization of all prepenultimate vowel contrasts as *ə* in contemporary Rejang, and by the loss of the affixal vowel in e.g. *um-utaq > *mutəa?* “vomit”.¹⁰

(4) *u > *əw*. In final position *u > *əw*:

*baSu	> <i>baəw</i>	“odor”
*batu	> <i>batəw</i> (RL), <i>butəw</i> (RR)	“stone”
*kempu	> <i>kəpəw</i>	“grandchild”
*qapeju	> <i>pəgəw</i>	“gall (bladder)”
*silu	> <i>siləw</i>	“rheumatic pain”
*qulu	> <i>uləw</i>	“head”

(5) *u > *oa*. *u became *oa* before final *q (which was retained) and before final liquids (which disappeared):

*bunuq	> <i>bonoa?</i>	“kill”
*penuq	> <i>pənoa?</i>	“full”
*puluq	> <i>poloa?</i>	“ten”

*aluR	> aloa (RR)	"flow"
*betul	> bətoa	"true, correct"
*ikuR	> ikoa	"tail"
*SuluR	> oloa	"to lower"
*tiDuR	> tidoa	"sleep"

This change parallels that discussed for *i in the same environment. As with *i, penultimate *u undergoes harmonic lowering in forms such as *bonoa?*, *poloa?* and *oloa*.

Finally, in one known word *u appears sporadically as *o*, and in a second word *u is reflected irregularly as *a*:

*biluk	> bilo?	"turn, veer"
*kutkut	> kəkut	"scratch"

In addition to the foregoing changes which affected particular vowels, a number of vowels have been lost through the general process of contraction following the loss of *q or *S. In such contractions shwa behaved like a "like vowel", as already described in the discussion of *e:

*beReqat	(> bərat) > bəʔət	"heavy"
*bineSiq	> bənea?	"seed (for planting)"
*buSek	> bu?	"head hair"
*daqan	> dan	"branch"
*kaSu	> ko	"you (sg.)"
*mi-Sepi	> mipəy	"dream"
*naSik	> ne?	"climb"
*paqit	> pet	"bitter"
*puqun	> pun	"tree"
*tuqelaN	> tələn	"bone"

A similar contraction followed the loss of *R in trisyllables, but not in disyllables:

*baRani	> binəy	"courageous"
*buRuk	> buʔu?	"decayed"
*keRiŋ	> kəʔiŋ	"dry"
*peRes	> pəʔəs (RL)	"squeeze"

The following irregular vowel reflexes which were not discussed above, should be noted here:

1) the expected reflex of *gatel "itch" is unclear, though the choices appear to be **gatəa and **gatoa. Rejang *gata* is thus evidently irregular.

2) the change *e > o in *pegeŋ > pəgoŋ "hold" and *tektek > tato? "chop, hack" may be paralleled in *panDak > poŋo? "short". If so these three forms can be taken as evidence of a tendency for pre-Rejang *a and *e to shift sporadically to o before a final velar.

3. Some comparisons

The foregoing survey is concerned primarily with the reflexes of the PMP (and ultimately, PAN) vowels in Rejang. As such its subject matter

is not limited to the Rejang vowels, but also includes diphthongs where these have a simple vowel source. The reflexes of PMP diphthongs are not considered, however, nor are earlier -VCV sequences which produced a diphthong after the loss of the consonant and before the operation of most of the vowel changes discussed here (e.g. *bahi > bai > bay > *bie* "female", *taqi > tai > tay > *tie* "feces").

Keeping these qualifications in mind, a brief comparison with a similar study of a related language might prove worthwhile. In an important early paper Dyen (1949) described the development of the PAN vowels in Trukese of central Micronesia. His goal in doing so was to demonstrate that the PAN four-vowel system reconstructed by Dempwolff (1934-38) was adequate to explain the attested nine-vowel system of Trukese. His major task in this undertaking was thus to describe the conditions under which proto-vowels were mapped onto their reflexes by regular changes. The principal goal of the present paper is to show that even where an attested vowel system is not inordinately large the number of correspondences that relate it to the vowel systems of other languages can be far greater than might be expected. Its task (though not its goal) is thus essentially the same as Dyen's. Table 3 summarizes Dyen's results, together with those of the present study:

Table 3
Summary of splits (horizontal) and mergers (vertical) of the PAN vowels in Trukese and Rejang¹¹

PAN		Trukese										
a	(7)	Ø	a	o	ë	ö	ä	e				
e	(5)	Ø		o	ë				y	i		
i	(5)	Ø						e	y	i	u	
u	(6)	Ø		o	ë				y	i	u	
	23	6		3	3			1	3	3	1	=20

		Rejang										
a	(9)	Ø	a	ə	e	o	i	u	əa	əy		
e	(7)	Ø	a	ə	e	o			əa		oa	
i	(5)			ə	e		i			əy		ea
u	(6)	Ø		ə		o		u			oa	əw
	27	3	1	6	3	3	1	1	1	1	1	=21

The leftmost column in Table 3 contains the reconstructed vowels of Proto-Austronesian (identical in PMP). Each of these is followed by a number in parentheses indicating the number of reflexes recognized for that vowel. Thus PAN *a has seven distinct outcomes in Trukese, and

nine in Rejang. The total of these parenthesized figures is the number of phonemic splits recognized in the inferred phonological evolution of the language (23 for Trukese, 27 for Rejang).

The calculation of mergers is a less straightforward procedure, since the number of vowels that merge as a given segment is not always identical to the number of *vowel pairs* that merge as this segment. Thus the merger of the four PAN vowels involves a loss of contrast between *six* vowel pairs (a:e, a:i, a:u, e:i, e:u, i:u), and it is this fact which appears relevant to a full statement of structural changes. No matter how they are counted, however, the number of phonological mergers in Rejang appears to be at least as great as in Trukese.

Although the vowel inventory of Rejang is smaller than that of Trukese, then, the four vowels of Proto-Austronesian have more distinct reflexes in the former than in the latter language. Structurally Rejang has maintained a modest vowel inventory while permitting an exceptional degree of phoneme splitting through the creation of a far richer array of diphthongs than is typical of Austronesian languages.

Before leaving this subject one other comparison will be worth mentioning. Prentice and Usman (1978) have described the unusually complex and interesting phonological history of Kerinci, spoken immediately to the north of Rejang. In this language, which shows a close lexical relationship to Malay and Minangkabau, last-syllable vowels have undergone extensive phonemic splitting that has resulted in an eight-vowel system and in a number of innovative diphthongs (e.g. *zaqit > *jaoy?* ‘sew’, *kabut > *kabèw?* ‘fog’, *waRi > *ahay* ‘day’). To this extent the Kerinci changes bear a superficial resemblance to those in Rejang. In contrast to Rejang, however, penultimate vowels remained generally unchanged in Kerinci. Moreover, as pointed out by the authors, Kerinci must have passed through an earlier stage in which it permitted only three vowels (*a, i, u*) in the last syllable. Unlike the situation in Rejang, then, PAN last-syllable *a and *e evidently merged in Kerinci before splitting into their attested reflexes, and so should not be treated separately in counting the number of splits that have occurred. The results show that Kerinci – despite its sometimes striking phonetic modifications – has experienced fewer splits and far fewer mergers of the PAN vowels than have either Trukese or Rejang (Table 4):¹²

Table 4

Splits (horizontal) and mergers (vertical) of the PAN vowels in Kerinci (PK = pre-Kerinci)

PAN	PK	<i>Kerinci</i>									
a	a	(6)	ò	è	a	ě	e	Ø			
e											
i	i	(5)		è					ay	ey	oy i
u	u	(5)	ò			ě					
									aw	ew	èw u
			16	1	1	1					= 4 ¹³

4. Nonphonological conditions of sound change

As is well known, the Comparative Method as developed by the Neogrammarians and their followers admits no exceptions. Of almost equal importance – though less often discussed – is the claim that sound change is unaffected by meaning. Bloomfield (1933:362-64) is adamant on this point: if an exception to sound change appears to be meaning-based, deeper investigation invariably will prove the connection to be illusory. Illustrating with the Greek aorist verb suffix *-s-*, he argues that *prima facie* cases of meaning-based resistance to sound change can be explained as analogical levellings which reintroduce a segment after it has been altered or eliminated in some environments by exceptionless phonetic processes.

One of the most interesting aspects of Rejang historical phonology is the existence of exceptions to the phonological changes detailed above which seem to require an explanation in terms of nonphonological conditions. The relevant forms fall into two distinct sets: kinship terms and pronouns.

As noted earlier, the final sequence **-aq* regularly became *-aa?*. However, four words meeting this description failed to undergo the expected change. Three of these are kinship terms: **bapa-q* > *bapa?* “father”, **kaka-q* > *kaka?* “elder sibling”, **mama-q* > *mama?* “mother’s brother”. Since each of these words exhibits the regular reflex of **-ak* it might be argued that the reconstructions in question actually ended in **k*, as in standard Malay (*bapak, kakak, mamak*). However, in an earlier paper (Blust 1979) I have tried to show that the final *k* in such Malay forms almost certainly derives from earlier **q*. It thus appears probable that kinship terms as a set were excluded from the regular change **aq* > *-aa?*.

The second set of consistently irregular forms is the pronouns. For ease of reference, these are reproduced here:

		PAN	REJANG	EXPECTED
sg	1	(i) aku	uku	**ukəw
	2	(i) kaSu	ko	**kaəw
	3	(si) ia	si (?)	**(s)iəy
pl	1i	(i) (k)ita	itə	**itəy
	1e	(i) (k)ami	keme	**kiməy
	2	(i) kamu	kumu	**kuməw
	3	(si) iDa	(tobo?o)	**(s)idəy

Agent-possessor set

	PAN	REJANG	EXPECTED
sg 1	ni-ku	ku	**kəw
2	ni-Su	nu	**nəw
3	ni-a	nə	**nəy
pl 1i	ni-ta	tə	**təy
1e	ni-mi	?	**məy
2	ni-mu	?	**məw
3	ni-Da	?	**dəy

What is remarkable about the Rejang pronouns is that *none* of them follow the regular sound changes described for other words. As seen already, a basic condition in the historical phonology of Rejang is syllable shape: words ending with a closed syllable show different phonological developments than similar words ending with an open syllable (e.g. *laŋit > *leŋet* “sky”, but *tali > *tiləy* “rope”). Two of the subject-object pronouns show a vocalic development appropriate to words that end with a closed syllable: *ita > *itə* (expected vocalic development of a word ending -itaC, where C is not *q, a liquid or a velar), *keme* (expected vocalic development of a word ending -amiC). By contrast, *uku* and *kumu* have the expected penultimate vowel, but do not show the anticipated diphthongization of the last vowel. The irregularities in *ko* and *si* (if from *si plus *ia) appear to be unique.

Among the agent-possessor pronouns *ku* and *tə* simply repeat information already given in connection with *uku* and *itə*; *nu* – like *uku* and *kumu* – does not have the expected diphthongization, and *nə* – like *itə* –, shows the anticipated reflex of non-assimilating *a in a final syllable closed by a consonant other than *q, a liquid or a velar.

Unfortunately, the pronouns form too small a lexical set to reveal a consistent pattern of deviation from regularity. It is unclear, for example, whether the distinct behavior of *aku and *kamu (which behave in part like open-syllable bases) as against *(k)ita and *(k)ami (which behave like closed-syllable bases) is connected with the fact that both end in -u. What is clear is that the Rejang pronouns constitute a coherent semantic domain that is marked as not undergoing the regular phonological changes.

Most important of all, there is no conceivable way in which this semantically united collection of phonologically diverse exceptions could be explained as a product of analogical levelling. In the first place a morphological basis for such levelling is unknown in Rejang or in any other closely related language. In the second place any mechanism which might serve to explain the deviation in *uku* and *kumu* evidently would be powerless to account for the deviations in *itə* and *keme*. In short, the burden of proof that the Rejang pronouns do not constitute a meaning-

based exception to phonological change rests with those who, like Bloomfield, would insist that such types of exception do not occur in natural languages.¹⁴

Appendix 1

Rejang etymologies which form the basis for section 2 (diachronic phonology)¹⁵

No.	PMP	pre-Rejang	Rejang	English
1.	qabʊ		abəw	ash
2.	aliR		alea (RL)	flow
3.	aluR		aloa (RR)	flow
4.	anak		ana?	child
5.	anay		anie anie	termite
6.	aŋin		aŋin	wind
7.	qajeŋ	araŋ	aʔaŋ	charcoal
8.		arəp	aʔəp	hope
9.	Sasaq		asəa?	whet, sharpen
10.	Sasap		asəp	smoke
11.	qatep		atəp	thatch
12.	qatey		atie	liver
13.	Sawak		awa?	body
14.	baSu		baəw	odor
15.	bales		baləs	repay
16.	waRet		balət	root
17.	bapa-q		bapa? (RL)	father
18.	bataŋ		bataŋ	tree trunk
19.	bibiR "lip"		bebea	mouth
20.		baniŋ	beneŋ	tortoise
21.	babaq	baq	bəa?	below
22.	baqeRu	bəru	bələw	new
23.	bineSiq	bəniq	bənea?	seed (for planting)
24.	bener		bənəa	true, correct
25.	benaqi	bənay	bənie	sand
26.	beReqat	bərət	bəʔət	heavy
27.	beRuk	bəruk	bəʔu?	monkey sp.
28.	bitiqis	bətis	bətis	calf of leg
29.		bətul	bətoa	true, correct
30.	bahi "female"	bay	bie	female (animals)
31.	waRi		biləy	day
32.	biluk		bilə?	turn, veer
33.	baRani	bani	binəy	courageous
34.	waSiR	wayər	bioa	fresh water
35.		bintaŋ	bitaŋ	star
36.	buaq		boa?	fruit
37.	bunuq		bonoa?	kill

No.	PMP	<i>pre-Rejang</i>	<i>Rejang</i>	<i>English</i>
38.	buqaya		buayo	crocodile
39.	bukid		bukit	hill
40.	bulat		bulət	round
41.	bulu		buləw	body hair, feather
42.	buŋa		buŋəy	flower
43.	buSek	buk	bu?	head hair
44.	buRuk		bu?u?	decayed
45.	batu		batəw (RL)	
			butəw (RR)	stone
46.	(d)aRaq		daləa?	blood
47.	lalej		dalək	housefly
48.	Zalan		dalən	path, road
49.	daqan		dan	branch
50.	Danaw		danoa (RL)	
			danuəw (RR)	lake
51.	daSun	dawən	dawən	leaf
52.		dəbu	dəbəw	dust
53.	dilaq		diləa?	tongue
54.	ZaRum		dolom	needle
55.	dapuR		dopoa	hearth
56.	DuSa		duəy	two
57.	dukut		dukut	grass
58.	Siket		eket	to tie
59.	Rakit		eket	raft
60.	qiliR		elea	downstream
61.	ipen		epen	tooth
62.	isep		esep	suck
63.	embun		əmun	cloud
64.	enem		ənum	six
65.	gatel		gata	itch
66.	gilap "flash"		gələp (RL)	lightning
67.	genep		gənəp	complete
68.	quDip		idup (met.)	living, alive
69.	ikuR		ikoa	tail
70.		rimba	iṃo	forest
71.		induk	iṃo?	mother
72.	Sisaŋ		isaŋ	gills
73.	hisi		isəy	contents
74.	ita		itə	1pl incl. subject
75.	qituŋ		ituŋ	count
76.	zari		jiəy	finger
77.	kabut		kabut	fog
78.	kaka-q		kaka?	elder sibling
79.	iSekan	əkan	kan	fish

No.	PMP	<i>pre-Rejang</i>	<i>Rejang</i>	<i>English</i>
80.	ka-wanan	kanən	kanən	right (side)
81.	kasaw		kasuəw (RR)	rafter
82.	kami		keme	1pl excl. subject
83.	kawil		kewea	fishhook
84.	kawit		kewet	hook (in general)
85.	kutkut		kəkut	scratch
86.	kempu		kəpəw	grandchild
87.	keRiŋ		kəʔiŋ	dry
88.	esak		k-əsaʔ	cooked
89.	tawa		kətawəy (RR)	laugh
90.	kilat		kilat (RR)	lightning
91.	kaSiw	kayu	kiuəw (RR)	
			kiuo (RL)	wood
92.	kaSu	kaw	ko	2sg subject
93.	kamu		kumu	2pl subject
94.	kutu		gutəw (RR)	
			kutəw (RL)	louse
95.		kuyuk	kuyuʔ	dog
96.	laŋaw		laŋuəw (RR)	horsefly
97.	lahud		laut	sea
98.	lawaq		lawəaʔ lawəaʔ	spider
99.	laŋit		leŋet	sky
100.	lain	layən	leyen	other, different
101.	lebiq		ləbeaʔ	excess
102.	lem		ləm	inside
103.	lima		ləmo	five
104.	lesuŋ		lesuŋ	rice mortar
105.	libeR		libəa	wide
106.	laRiw	lari	liləy	run
107.	qali-metaq	lintaq	litəaʔ	leech
108.	mama-q		mamaʔ	FyB, MyB
109.	mata		matəy	eye
110.	matey		matie	die, dead
111.	um-inem ¹⁶		m-enem	drink
112.	ma-iRaq	miraq	miləaʔ	red
113.	mi-Sepi		mipəy	dream
114.	emis		mis	sweet
115.	manuk		monoʔ	chicken
116.	ma-qañud		monot	drift
117.	um-utaq	mutaq	mutəaʔ	vomit
118.	naSik		neʔ	climb
119.	ni-a	ña	nə	3sg possessor
120.	niuR		nioa	coconut palm

No.	PMP	<i>pre-Rejang</i>	<i>Rejang</i>	<i>English</i>
121.	nipis		mipis (RR) nipis (RL)	thin, of materials
122.	ni-Su	ñu	nu	2sg possessor
123.	ñawa		ñabəy	breathe
124.	ñamuk		ñamu? (RL) ñomo? (RR)	mosquito
125.	SuluR		oloa	to lower
126.	qulej		olok	maggot
127.	qapuR		opoa	lime (for betel chew)
128.	Sapuy		opoy	fire
129.	qutek		oto?	brain
130.	Ratus		otos	hundred
131.	pajey		pae	riceplant
132.	panas		panəs	hot
133.	panaw		panoa (RL) panuəw (RR)	go, walk
134.	panzar		pañyar	long
135.	hepat	əpat	pat	four
136.	pataq		patəa?	break
137.	piliq		pelea?	choose
138.	paqit		pet	bitter
139.	qapeju		pəgəw	gall
140.	peger		pəgoŋ	hold
141.	p-al-aqepaq		pələpəa?	palm frond
142.	penuq		pənoa?	full
143.	peRes		pəʔəs (RL)	squeeze
144.	p-inzem		piñyəm	borrow
145.	pisaw		pisuəw (RR)	knife
146.	puluq		poloa?	ten
147.	punay		ponoy	dove
148.	pandak		peñe? (RR) poño? (RL)	short
149.	pusej		posok	navel
150.	puket		pukət	dragnet
151.	pulut		pulut	birdlime
152.	puqun		pun	tree
153.	putiq		putea?	white
154.		sarəp	saʔəp	rubbish
155.	kiZep		sə-kijəp	blink
156.	silun		səlon	finger nail
157.	ma-Ruqanay	manay	sə-manie	male
158.	sempit		səpit	narrow
159.	silu		siləw	rheumatic pain
160.	qasiRa		siləy	salt

No.	PMP	<i>pre-Rejang</i>	<i>Rejang</i>	<i>English</i>
161.	sintak		sita?	jerk, pull suddenly
162.	sabuŋ		soboŋ	cockfight
163.	sapu		supəw	broom
164.	susu		susəw	breast
165.	tazem		tajəm	sharp
166.	tales		taləs	taro
167.	taneq		tanəa?	earth, soil
168.	tanem		tanəm	plant, bury
169.	taŋan		taŋən	hand
170.	taqun		taun	year
171.	tawaD	tawar	tawəa	bargain, haggle
172.	teka		təko	come, arrive
173.	tuqelaN		təlan	bone
174.	telu		tələw	three
175.	tinaqi	tənay	tənie	stomach
176.	qateluR		tənoa	egg
177.	deŋeR		təŋoa	hear
178.	tektek		təto?	chop, hack
179.	tiDuR		tidoa	sleep
180.	taqi	tay	tie	feces
181.	tikam		tikəm	stab
182.	talih	tali	tiləy	rope
183.	timeRaq	timaq	timəa?	tin
184.		timbak	timāa?	shoot
185.	Siup		t-iup	blow
186.	tirus		tius	tapering
187.	tuZuq "to point"		tojoa?	seven
188.	tuŋked		tokot	cane, staff
189.		tumpul	topoa	blunt, dull
190.	tuqah	tuqa	tuəy	old
191.		tupay	tupie	tupai
192.	tutup		tutup	to close
193.	TukTuk		tutu?	pound (rice, etc.)
194.	qubi		ubəy	yam
195.	quDaŋ		udaŋ	shrimp, lobster
196.	quZan		ujən	rain
197.	aku		uku	1sg subject
198.	qulu		uləw	head
199.	Rumaq		uməa?	house
200.	busuk		usu?	putrid
201.	qayam		yam-yam	toy

NOTES

- 1 In his description of the Indian-derived KA-GA-NGA syllabary, Jaspan (1964:6) points out the remarkable fact that "whilst the Redjang have a language of their own which is unintelligible to Malays, the language of their KA-GA-NGA texts is Malay. This was clearly the language of literature and documentation and was modelled on the court language of the medieval South Sumatran Kingdom of Melayu." This fact alone is sufficient to indicate the prestige that Malay has enjoyed for centuries in the Rejang area, and leads one to suspect the presence of numerous Malay loans in the language.
- 2 Coady and McGinn (1982:447) list four major dialects: Lebong, Musi, Pasisir and Kebanagung. According to them "All previous investigators have worked on the Lebong dialect of Rejang, including P. Voorhoeve and H. Kähler". McGinn's work (hence also Coady and McGinn 1982) is based instead on the Musi dialect. Dialect materials supplied by McGinn show that the data offered to me as Rejang Lebong actually bears a closer resemblance to his Rejang Musi, without being identical to it. It is unclear to me where "Rejang Rejang" fits into this four-way division, but in nearly all essential details it is identical to Rejang Lebong as given by Atika. Voorhoeve (personal communication) adds that "The dialect which is probably most important from a historical point of view is not mentioned by McGinn. It is the 'Jang Abeus' dialect, spoken along the upper reaches of the river Rawas in Palembang. In 1941 it still had the final -l in such words as *biyol*, Lebong *biyoua*, water." Needless to say, a careful dialect survey of the Rejang area is sorely needed.
- 3 Voorhoeve (personal communication) informs me that *c* is not at all rare in Jaspan (ms.), a source which I have been unable to consult.
- 4 Jaspan (1964:14) refers to this as a "fringilised" (= pharyngealised) diphthong. Apart from his misspelling the phonetic characterisation is inaccurate, as no pharyngealisation appears to be present.
- 5 To avoid recognizing possible consonant distinctions that are irrelevant to my present concerns I relate the Rejang material in Appendix 1 not to Proto-Austronesian, but rather to a language that I have elsewhere (e.g. Blust 1977) called "Proto-Malayo-Polynesian" (PMP). With respect to their vowel inventories the two reconstructed languages are equivalent, and as such I will refer to them interchangeably in the remainder of the paper.
- 6 Possibly also *babaq > *bəa*? "below", though this word appears to have reduced by haplology.
- 7 Although somewhat awkward to state in a title, the proper concern of the present paper is the reflexes of the PAN/PMP vowels in Rejang, some of which are vowels and some of which are diphthongs. Diphthongs which derive from a diphthong (as *atie* < *qatey "liver" or *opoy* < *hapuy "fire"), on the other hand, are excluded from consideration.
- 8 Stems are classified as AS if *either* of the recorded dialects shows assimilation. Generally these agree, but occasionally they do not (e.g. 124). Numbers of the supporting examples in Appendix 1 are: AS: *a...i* (20, 59, 83, 84, 99, 118, 138), *a...u* (54, 55, 115, 116, 124, 127, 128, 130, 162), *i...a* (none), *u...a* (147), *e...i* (none), *e...u* (none), *i...e* (58, 61, 62, 100?, 111), *u...e* (126, 129, 149, 188), NS: *a...i* (2, 6), *a...u* (3, 77, 97, 170), *i...a* (35, 53, 66, 72, 79, 90, 107, 112, 145, 161, 181, 183, 184), *u...a* (40, 117, 191, 195, 196, 199), *e...i* (23, 28, 87, 101, 158), *e...u* (27, 29, 63, 104, 142, 176), *i...e* (105, 144, 155), *u...e* (150).
- 9 This and the following example are subject to both conditions: syncope may have occurred prior to the loss of *S.
- 10 Under this interpretation, however, *buqaya > *buayo* "crocodile" is puzzling, as we would expect **bayo.
- 11 Length differences in Trukese have been ignored, since the corresponding long and short vowels frequently alternate in possessive paradigms. As a consequence of "compensatory lengthening" the surviving vowel of unaffixed original disyllables is

- normally long (e.g. *ikuR > wyyk "tail", *qulej > wuun "maggot").
- 12 Prentice, following Steinhauer and Usman (1978), distinguishes "absolute" (= independent) and "oblique" (= contextual) forms of most content words; e.g. *binatən* "an animal", *binatən-ŋo* "his animal", *binatən-gēden* "a big animal", etc. Table 4 is based on the absolute forms. I follow Prentice and Usman's own statements in recognizing regular or semi-regular vowel splits, but have also included *a > Ø to cover cases of prepenultimate *a-, * qa- or *Sa-, which appear to have been lost – at least under certain conditions – in a language ancestral to Malay and its closest relatives.
  - 13 Includes the PK merger of last-syllable *a and *e.
  - 14 Bernd Nothofer (personal communication) has pointed out to me that monosyllables may have been subject to a different set of phonological changes than words of two or more syllables in the history of Rejang. The irregularities in the pronouns could thus stem from a generalization to the subject-object set of the rules that applied to the agent-possessor. The difficulty with this proposal is that the irregularities in the subject-object pronouns exhibit more than one type of deviation. Thus *aku > uku lacks the expected diphthongization, but *kami > keme shows the lowering and mutual assimilation characteristic of words of similar vowel pattern that ended with a consonant.
  - 15 Pre-Rejang forms are either 1) hypothesized intermediate steps in a derivation from PMP, or 2) reconstructions based on cognates found in Malay and a few other languages of western Indonesia, but not outside this area. It is possible that some of the latter cognate sets are products of borrowing from Malay.
  - 16 Doublet of *inum; cf Tiruray, Karo Batak, Balinese, Sasak *inəm* "to drink".

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