

TRANSITIVE MARKING IN MICRONESIAN LANGUAGES¹

S.P. HARRISON

1. INTRODUCTION

This paper will attempt to explode a myth regarding the morphology of transitive verbs at a historical period common to all Micronesian languages (one assumes proto-Micronesian, henceforth PMC). It is a myth that has not, to my knowledge, appeared in print in any published work, though one I must confess to have perpetuated in my dissertation (Harrison 1977b). It is, therefore, difficult to determine just how widely it has been accepted, if at all. Those of us who have maintained silence on this issue, while suspecting something to be amiss, are no less guilty than those who took the myth to heart.²

The myth in question is that PMC transitive verb morphology can be assumed to have been largely identical to that reconstructed for POC (see especially Pawley 1973, also Pawley 1977a, b); that is, that a transitive verb was marked by one of two transitive suffixes (the POC close transitive *-i or the remote transitive *-aki(ni)), followed by a pronominal object suffix if the object was specific and if an agent/experiencer was expressed. This system may be schematised as follows:

$$\text{verb} + \left[\begin{array}{c} *-i \\ \\ *-aki(ni) \end{array} \right] + \text{object suffix}$$

where *-akini appears if an object suffix follows and *-aki appears if one does not.

In an earlier work (Harrison 1977b:186-200), I proposed that the transitive marking schema presented above be modified for PMC with respect to *-aki(ni). It was suggested there that PMC has two analogues of POC *-aki(ni); one, an agentless passive suffix PMC *-aki; the other,

a prepositional verb PMC *akini marking such case roles as cause, concomitant, or instrument. The former, though a suffix, is reconstructed with a function quite different from that reconstructed for POC *-aki(ni). The latter, though similar in function to the POC form, is not reconstructed as a suffix.

The present study will propose two further modifications to the schema of the previous page. First, we will reconstruct two transitive suffixes for PMC, complementary with respect to the number, humanness, and categorical status (pronoun or noun phrase) of the object. Second, we suggest that all PMC object pronouns were not verbal suffixes. Most, it appears, were absolute pronouns with the syntax of full noun phrases, some were verb phrase enclitics, while only one seems to have been a verbal suffix. PMC transitive suffixes will be considered in Section 2 and object pronouns in Section 3. Section 4 deals with special problems arising in the case of transitive verbs whose roots were vowel-final.

2. PMC TRANSITIVE SUFFIXES

I propose to reconstruct the following terminations for PMC transitive verbs:

*-a used with singular noun phrase objects

*-i used with pronominal objects, plural noun phrase objects and, anaphorically, for plural non-human objects.

These suffixes are reflected most clearly in Gilbertese, as in the following examples:

GIL I nooriko
lsg. see-i-2sg.
'I saw you'

I nooria
lsg. see-i-3sg.
'I saw him/her/it'

I noora te ika
lsg. see-a art fish
'I saw the fish'

I noora te waa
lsg. see-a art canoe
'I saw the canoes'

I noori waa akanne
lsg. see-i canoe those
'I saw those canoes'

I noori
 lsg. *see-i*
'I saw them (the canoes)'

Gilbertese transitive forms in -i without a following pronoun object show an optional lengthened form in -ii, when the suffix is immediately preceded by a consonant (that is, with 'thematic' transitive verbs).

Thus:

I noorii waa akekei
 lsg. *see-ii canoe those*
'I saw those canoes'

*I oteii noko akekei
 lsg. *break-ii mid-rib those*
'I broke those mid-ribs'

Reflexes of PMC *-i and *-a transitive suffixes have been obscured in other Micronesian languages by a process of final vowel deletion (henceforth FVD), which resulted in the loss of word-final syllabics in Marshallese, Kosraean, the Ponapeic languages, and westward through most of the Trukic continuum.³ Its effects can be seen in the following correspondence sets:

PMC	*masaki	'ache'	*mata	'eye'	*t'at'aa	'blood', ⁴
GIL	maraki		mata		raraa	
MAR	metak		māj		da~dda	
KOS	atuck		-		srah	
MOK	moadoak		maj		insa	
TRU	metek		maas ⁵		ccha	

That is, short final vowels are lost and long final vowels are shortened through FVD. Historical final vowels are preserved in these languages, however, where FVD was blocked by the presence of a following suffix as, for example, in the forms of the possessive paradigm for inalienable nouns. Thus:

PMC	*mata	'eye'	*mata+ni	'eye of'
MAR	māj		mejān	
MOK	maj		mijen	
TRU	maas		mesen	
PMC	*t'at'aa	'blood'	*t'at'aa+ni	'blood of'
MAR	(d)da		daan	
MOK	insa		insahn	
TRU	ccha		chaan	

The retention of historical final vowels before a following suffix will be demonstrated to be significant for the evolution of transitive marking in some Micronesian languages.

For 'thematic' verbs, then PMC *-i and *-a forms can be expected to have merged on a single zero form in those languages where final vowels are deleted (or to be reflected as voiceless vowels in those western Trukic languages referred to in footnote 3). This prediction is borne out for the most part in Marshallese, Kosraean and in Ponapeic. Thus:

GIL	I wareka te aine	<i>'I counted the woman'</i>
MAR	Iar watōk lio	
KOS	Nga oek muhtwacn ah	
PON	I wadek liho	
GIL	I warekingkamii	<i>'I counted you (pl)'</i>
MAR	Iar watōk kōmi	
KOS	Nga oek komtahl	
PON	I wadek kumwail	

While the above evidence does not conflict with the hypothesis that PMC distinguished *-i and *-a transitive forms, it provides no strong support either, since the zero forms cited could equally well reflect one or the other PMC form exclusively, or some third form unattested in Gilbertese. (I chose to discount this last possibility, however.) Vowel-final transitive verbs in Ponapean and Kosraean provide more direct evidence that *-i and *-a transitives were distinguished at some earlier period in the history of these languages. Consider the following Ponapean examples:

PON	E	pahn seuwese ohlo	
	3sg.	<i>will help</i>	<i>man-that</i>
		<i>'He will help that man'</i>	
	E	pahn seuwesei kitail	
	3sg.	<i>will help-i</i>	<i>us (incl.)</i>
		<i>'He will help us'</i>	
	E	pahn seuwesei kumwail	
	3sg.	<i>will help-i</i>	<i>you (pl.)</i>
		<i>'He will help you'</i>	

where PON seuwese can be taken to reflect an earlier *-a form to which FVD has applied, and PON seuwesei⁶ an earlier *-i form not subject to FVD, since *-i has become a glide following a non-high vowel. Reflexes of earlier *-i forms in Ponapean are not found with third person plural anaphoric or noun phrase objects, however.

PMC *-i and *-a transitive forms have distinct reflexes in Kosraean non-high vowel final verbs also, as seen in alternations like:

KOS Muhtwacn sac etuh mwet sac
 woman the know man the
 'The woman knows the man'

 Muhtwacn sac etwe yuh
 woman the knows me
 'The woman knows me'

 Muhtwacn sac etwe kom
 woman the know you
 'The woman knows you'

where uh# [ʌ] is raised and fronted to e# [e] before object pronouns. (As in Ponapean, Kosraean e# alternates do not appear with third person plural anaphoric/NP objects.) Compare:

KOS	etuh	'to know something'	etwe	'to know (+ pro)'
GIL	ataa	'to know something'	atai	'to know (+ pro)'
PON	ese	'to know something'	esei	'to know (+ pro)'

where the forms in the first column reflect the *-a form and those in the second column the *-i form, respectively, of PMC *ata 'to know'. Kosraean [ʌ] as a reflex of earlier *aa# can be seen in:

KOS muh 'to yawn'
 MOK mahma 'to yawn'

Kosraean [e] as a reflex of earlier *ai can be seen in:

PMC *afi 'fire'
 GIL ai
 MOK oai
 KOS e

showing loss of PMC *f in these forms

GIL taim 'to sharpen'
 MOK jaim 'to sharpen something'
 KOS twem 'to sharpen something'

Velarisation of a preceding consonant seems to accompany the change of *ai to e in Kosraean.

Some further indirect and rather inconclusive evidence for a pre-Ponapeic *-a transitive forms can be found in Mokilese verbs like:

MOK koa_vt 'to bite something'
 keikei_v1 'to bite'

pa _{Vt}	'to weave something'
poaipoi _{V1}	'to weave'

These verbs are somewhat odd in that their intransitive (reduplicated) forms show a final glide not reflected in their transitive forms. Only the second of the two verbs in question has pan-Micronesian cognates:

GIL	ati	'to weave'
	ata	'to weave it'
MAR	āj	'to weave (something)'
	āje	'to weave it'
	āji	'to weave them'
WOL	faiufeu	'to weave'
	faiuw	'to weave it'

For pre-Mokilese, I propose to reconstruct *fati 'to weave' and *fata 'to weave something' (PMC reconstructions for verbs of this sort are problematic - see Section 4) and to derive the Mokilese forms as follows:

*fati	*fata	
paji	paja	*f>p: *t>j
pɔji	-	umlaut
pɔi	paa	irregular loss of /j/ (a common, though sporadic, phenomenon)
pɔɪ	-	glide formation
-	pa	FVD
pɔɪpɔɪ	-	reduplication

There is, to my knowledge, no hypothesis that yields an account of the canonical disparity between such intransitive and transitive verb pairs in Mokilese other than one which holds that the extant transitive form reflects an earlier *-a transitive form.

Marshallese evidence for an earlier *-i/*-a contrast is far from straightforward. In addition to the zero transitive forms already considered, many Marshallese transitive verbs also possess -e and -i forms. (We will ignore many of the complexities of Marshallese transitive verb morphology for the present. Other details will be considered where relevant.) Transitive forms in -e provide anaphoric reference to third person singular objects:

- MAR Ear deñōt ladik eo
 3sg.-pst slap boy the
 'He slapped the boy'
- Ear deñōte
 3sg.-pst slap-e
 'He slapped him'
- Ear pukot pinjel eo
 3sg.-pst look for pencil the
 'He looked for the pencil'
- Ear pukote
 3sg.-pst look for-e
 'He looked for it'

MAR -e transitive forms appear optionally with expressed objects:

- MAR Ear deñōt(e) ladik eo
 3sg.-pst slap-(e) boy the
 'He slapped the boy'
- Ear deñōt(e) e
 3sg.-pst slap-(e) 3sg.
 'He slapped him'

Except in the case of those Marshallese transitive verbs without a zero form (for example, boke 'to throw sand at', -e forms are obligatory only in third person singular anaphoric object contexts. Because of this distribution, it is tempting to identify these forms with Gilbertese -i+a forms (that is, -i transitive forms with an a third person singular object pronoun), as in:

- GIL I noora te aine 'I saw the woman'
 I nooria 'I saw her'
 I tibia te ika 'I shared the fish'
 I tibia 'I shared it'

However, Bender (personal communication) informs me that the regular reflex of earlier *ia# sequences in Marshallese is a higher mid vowel [e], not the lower mid [ɛ] of the -e suffix. Thus:

- MAR ane [æne] 'island' (<pre-MAR *fania)
 TRU fénú
 WOL faliuwE
- MAR diede [ɰieje] 'to wear an earring' (<pre-MAR *t'iat'ia)
 MOK siasi
 WOL shiuweshiuwE

MAR	ke [ke]	'porpoise'	(<pre-MAR *kia, PMC *kua)
GIL	kua		
WOL	giuwE		

Other possible sources of MAR -e are equally problematic, however. It is doubtful that this suffix can be identified with PMC *-a since these earlier *-a transitive forms have already been identified with the pre-NP zero transitive forms of Marshallese. Bender has suggested an earlier *-aa#, either a lengthening of *-a or a juxtaposition of *-a transitive forms and *a 'third person singular object pronoun'. Such a source for MAR -e seems no more likely, though, since the regular reflex of *-aa# appears to be -a# in Marshallese. For example:

PMC	*raa	'branch'
MAR	ra	'branch'
	raan	'branch of'
MOK	ra	'branch'
	rahn	'branch of'
PMC	*t'aa	'blood'
GIL	raraa	'blood'
MAR	dda	'blood'
	daan	'blood of'
MOK	insa	'blood'
	insahn	'blood of'
GIL	waa	'canoe'
MAR	wa	'canoe'

On available evidence, then, if MAR -e is to be identified with either of these two sources (*-ia or *-aa), in either case it is an irregular reflex. Other options lacking, and in view of the similarity in function, I conclude tentatively that MAR -e is in fact cognate with the GIL -ia third person singular pronominal form.

It follows, then, that PMC *-a transitive forms are reflected as zero in Marshallese, as are PMC *-i forms, except when followed by an earlier *-a 'third singular object pronoun', in which case earlier *-ia is reflected, albeit irregularly, as MAR -e. It remains, however, to account for the failure of FVD to apply to PMC *-i before *a in Marshallese. This problem is considered in Section 3.

Marshallese -i transitive forms, except for those verbs lacking -e forms, are restricted to contexts with plural non-human objects. Thus:

Ear deñōt(e) ladik ro
 3sg.-pst slap-(e) boy the (human pl.)
 'He slapped the boys'

 Ear deñōt(e) er
 3sg.-pst slap-(e) 3pl.
 'He slapped them (human)'

 *Ear denōti ladik ro

 *Ear denōti er

 Ear denōt(e) kweet ko
 3sg.-pst pound-(e) octopus the (non-human pl.)
 'He pounded the octopuses'

 Ear deñōti kweet ko
 3sg.-pst pound-i octopus the (non-human pl.)

 Ear deñōti
 3sg.-pst pound-i
 'He pounded them (non-human)'

Marshallese -i transitive forms are strikingly similar in function to Gilbertese -i transitive forms as used with no following object pronoun. One would expect, however, that any Marshallese cognate of Gilbertese -i forms (<PMC *-i) should be zero through FVD. Recall that such Gilbertese forms have lengthened (-ii) alternates. I suggest that Marshallese -i transitive forms reflect a pre-Marshallese lengthened alternate of PMC *-i; that is, pre-Marshallese *-ii, to which FVD has applied. This alternate has become obligatory in third person plural non-human anaphoric object contexts in Marshallese.

The Trukic languages show clear reflexes of PMC *-i and *-a though, except (on the basis of data available to me) in some problematic cases in Satawalese and Puluwatese, the former is reflected only with thematic verbs, the latter only with vowel-final verbs. All Trukic languages have -i (or some morphophonemic variant thereof) before pronoun objects:

TRU Aa túkúmiyey
 3sg.-pst cover-i-1sg.
 'He covered me'

 Aa túkúmuk
 'He covered you'

 Aa túkúmikich
 'He covered us (incl.)'

 Aa túkúmikeem
 'He covered us (excl.)'

Aa túkúmikemi
'He covered you (pl.)'

A túkúmiir
'He covered them'

WOL Ye weriyei
3sg. see-i-lsg.
'He saw me'

Ye werig
'He saw you'

Ye werigish
'He saw us (incl.)'

Ye werigemam
'He saw us (excl.)'

Ye werigami
'He saw you (pl.)'

Ye weriir
'He saw them'

These reflexes are unexpected, however, in view of the fact that FVD has applied in Trukic. This problem will be considered in Section 3.

PMC *-a is reflected in third person singular object forms (anaphoric or noun phrasal) of vowel-final verbs. In those western Trukic languages where final vowels are devoiced, PMC *-a is reflected as a voiceless vowel (PUA -A, WOL -E). Thus:

PUA E niyA pisini we
3sg. kill-A dog the
'He killed the dog'

E niyA
3sg. kill-A
'He killed it'

WOL E giuE gelaagU we
3sg. bite-E dog the
'He bit the dog'

E giuE
3sg. bite-E
'He bit it'

It will be argued (Section 4) that the glides preceding reflexes of PMC *-a in such verbs are epenthetic. If the final vowel of the verb root is low, however, no epenthetic glide arises before *-a. The sequence *a+a# is reduced to *a# by FVD:

PUA	pila	'to steal it/something'
WOL	fagola	'to care for him/someone'
TRU	kúna	'to see it/something'

In those Trukic languages, like Trukese, where final vowels are deleted, the only remaining evidence of an original *-a termination is the epenthetic (now final) glide following root-final non-low vowels:

TRU	kúúw	'to bite it/something'
	tongeey	'to miss him/someone'
	fiiwuuw	'to fight with him/someone'

The following are third person singular object forms (anaphoric or noun phrasal) of Trukic thematic verbs:

TRU	WOL	PUA	
wúnúmi	iuliumi	inimi	'to drink it'
fótuki	fatogi	datoki	'to plant it'
ngúti	ngiuti	ngiti	'to chew it'

These forms appear optionally with plural noun phrase objects in Woleaian and, so far as I am aware, obligatorily with non-human third person plural objects in Trukese.

If the Trukic -i third person object form is to be considered a direct reflex of a pre-Trukic transitive form, that form could only have been an earlier *-ii. Earlier *-i would, of course, have been subject to FVD, while an earlier *i + a third person singular object should be reflected with an originally epenthetic glide and, in western Trukic, with a voiceless reflex of *-a, as in:

PMC	WOL	
**t'iat'ia ⁷	shiuweshiuwE	'to wear an earring'
*mwatie	mwosiyE	'to sneeze'
**(pi)pia	piiyE	'sand'

While we have not reconstructed a PMC *-ii transitive termination, we have already had to hypothesise a pre-Marshalllese *-ii (to account for synchronic MAR -i after FVD) and have noted GIL -ii# as an alternate of -i# for thematic verbs. On the basis of this evidence it might appear that the most obvious course would be to reconstruct PMC *-ii as a third transitive termination. While the case for such a reconstruction is far from closed, I am loath to accept it at present in view of the following facts:

- 1) unlike *-i and *-a, the pre-PMC provenance of *-ii is not clear, nor have any secure extra-Micronesian cognates been found

- ii) there is no evidence whatsoever for this suffix in Ponapeic-Kosraean⁸
- iii) the syntax of putative pre-Marshallese/Gilbertese *-ii and proto-Trukic *-ii is not parallel. In the former, this suffix can be hypothesised for non-human third person plural objects, while in the latter, its basic function is third person singular.

Were we to reconstruct PMC *-ii (as was proposed in an earlier version of this paper), its most likely function was as a plural counterpart of PMC *-a, with noun phrase objects, and, anaphorically, for third person plural non-human objects. (PMC *-i transitive forms with the object pronouns PMC *a and *ira functioned as anaphoric third person singular (± human) and third person human plural forms, respectively.) Under this hypothesis, we must then account for its shift to third person singular in Trukic (third person 'unmarked' in eastern Trukic, where, so far as I am aware, -i forms are used with non-human plural as well as ± human singular objects. (Trukic languages from (on available evidence) Puluwat west have a third person plural non-human object pronoun pre-western Trukic *-ni whose source is unclear.) Rather than propose such an account, however, I choose to treat the emergence of proto-Trukic *-i as an independent development (see Section 3.2.5.), as I do the lengthening of pre-Marshallese/Gilbertese *-ii. Under such a view, no PMC transitive suffix *-ii need be postulated, but I stress that this conclusion is tentative.

The following table summarises the evidence presented thus far for reconstructing PMC *-a and *-i transitive suffixes:

TABLE 1
Evidence For PMC Transitive Suffixes

PMC	*-a	*-i
Gilbertese	extant *-a	extant -i
Marshallese	C# forms from *C{ ⁱ _a }#	
		Ce# from *Ci+a#
		Ci# from lengthened *Ci#
Ponapeic	C# forms from *C{ ⁱ _a }#	
	V# transitives	Vi# object pronoun
	poaipoi/pa pairs	
Kosraean	C# forms from *C{ ⁱ _a }#	
	etuh / etwe alternations	
Trukic	y/w verbs (see Section 4)	Ci+object pronoun

3. OBJECT PRONOUNS AND TRANSITIVE MARKING

3.0. INTRODUCTION

The present section considers the history of pronominal object marking in Micronesian languages. We begin (Section 3.1.) with a reconstruction of the object marking system of PMC. This is compared with pronoun object marking systems of extant Micronesian languages in Section 3.2. In Section 3.3. we propose that the evolution of pronoun object marking in Micronesian languages has been governed by a process here termed verb-object attraction. The development of extant systems is considered in detail in Section 3.4.

3.1. OBJECT MARKING IN PMC

In Section 2, we reconstructed two transitive verb forms for PMC, *-i and *-a, the latter used with singular noun phrase objects, the former elsewhere. No evidence available to me contradicts the claim that objects in the first and second persons were marked by the

appropriate object pronoun with a transitive verb form in *-i. There is no uniformity, however, in the treatment of third person objects.

Only Gilbertese and Marshallese distinguish pronominal and noun phrase objects in the singular; Gilbertese -a and Marshallese zero transitive forms appear with noun phrase objects, while Gilbertese -ia (-i+a '3sg. object') and Marshallese -e forms (<-ia - with the reservations, both synchronic and diachronic, noted above) have pronominal reference. Ponapeic/Kosraean show zero forms (presumably earlier *-a forms) and Trukic, -i thematic and reflexes of earlier *-a vowel-final forms in both functions. In spite of the fact that the *-a/*-i+a distinction has an extremely limited distribution in Micronesian languages, I reconstruct it for PMC nonetheless. The alternate hypothesis, that Gilbertese and Marshallese innovated the *i+a form, it should be clear, would necessitate a claim that, at some earlier period, these languages evolved an *a third person singular object pronoun (appearing, of course, with a pre-nominal *-i transitive verb form). This hypothesis is unlikely, since an *a third person singular object pronoun has been reconstructed for POC. (Note that while the *-a transitive verb termination may be related historically to the *a object pronoun (see Section 5), I claim that this relationship had become opaque by the PMC period.) I must then conclude that the PMC *a object pronoun, and with it the *-i+a pronoun marked transitive form, was lost in Ponapeic/Kosraean and Trukic.

All Micronesian languages reflect a third person plural object pronoun PMC *ira used, as would be predicted, with an *-i verb form. So far as I am aware, reflexes of PMC *ira are restricted to human objects. Except in Gilbertese and Trukic, which, I will argue below, are in this respect special cases, reflexes of *ira do not appear with noun phrase objects. I conclude, therefore, that plural noun phrase objects and non-human anaphoric objects had no special pronominal marking in PMC. Under the analysis presented here, objects of this sort were marked by what we might consider to have been the unmarked PMC transitive form, an *-i form with no object pronoun. This usage, it is claimed, is for the most part preserved in Gilbertese, Marshallese, and Trukic (bearing in mind the innovations noted above and in Section 2). Ponapeic/Kosraean show zero forms in these contexts.⁹

The grammars of most Micronesian languages recognise four pronominal subsystems, paralleling those reconstructed (Pawley 1972) for earlier periods in the development of Oceanic: possessive suffixes, subject markers, object markers, and absolute pronouns. We will be concerned only with the latter two sets. They can be reconstructed for PMC as follows:

	object	absolute
1sg.	*ai	*ngai
2sg.	*ko	*koe
3sg.	*a	*ai
1pl.incl.	*ki(t',t)a	*ki(t',t)a
1pl.excl.	*ka(ma)mi	*ka(ma)mi
2pl.	*kamiu	*kamiu
3pl.	*ira	*ira

The data on which these reconstructions are based are given in Appendix I.

Initial *ng-* in the first person singular absolute pronoun appears to be a PMC innovation. Pawley (1972) gives initial *ng-* only in the case of Rotuman *gou* 'I'. Other Oceanic languages in his sample show either *au* (Polynesian and Fijian) or some reflex of an earlier **nau*. Since PMC **ng* is found in a few cases where non-Micronesian languages show reflexes of POC **n* (for example, PMC ***ngii* 'tooth' POC **nipon*), PMC **ngai* may be an irregular reflex of POC **nau*. On the other hand, initial **ng-* may represent an early fusion of an 'emphatic' absolute pronoun prefix **ng(a)* to a pre-PMC **ai*. This prefix is found on all absolute pronouns in Gilbertese and on a set of emphatic/subject pronouns in Nauruan (a language not otherwise considered in this study). It might be noted that NAU *ng-* prefixes to all emphatic pronouns in that language except *anga* 'I (absolute and emphatic/subject)'. Gilbertese *ngngai* 'I (absolute)' shows the *ng-* prefix however.

In order to be able to describe the syntax of PMC absolute and object pronouns, we must first briefly consider the general characteristics of two sentence types in PMC: equational sentences and verbal sentences. The former appear to have been of the form NP-NP. The latter contained minimally only a verb phrase, a construction consisting of a verb and a number of pre- and post-verbal clitic elements - subject markers, tense/aspect markers, directionals, and so forth.¹⁰ Minimal verbal sentences could be expanded by the addition of subject, object and, for some verbs, indirect object noun phrases. (We ignore the marking of non-nuclear grammatical relations.) The relative order of these NPs with respect to the verb and to each other is not completely clear. Significant for the present discussion is the fact that an NP object typically followed the verb directly.

Evidence from daughter languages suggests that PMC absolute pronouns had the syntax of noun phrases. That is, they appeared in equational sentences, and as 'emphatic' subjects in the subject NP slot. (Pro-nominal subject markers were obligatory in the VP in PMC, it appears.) They seem to have been able to appear in topicalised or focussed contexts as regular noun phrases.

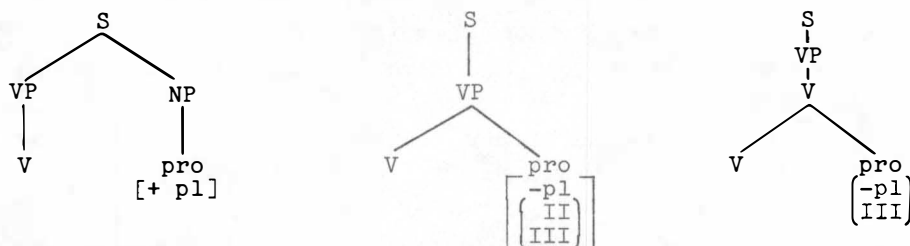
It is not immediately clear from evidence in daughter languages whether absolute pronouns could occupy NP object position. In those daughter languages that distinguish absolute pronouns and pronominal object markers, the absolute pronouns are not used as 'emphatic' objects (parallel to their use as emphatic subjects), though they do appear as objects in conjoined object constructions such as:

WOL Ye sa weri-gemam me iir
 3sg. T/A *see-us* and them
 'He saw them and me'

with both the object suffix *gemam* 'us (excl.)' and the absolute pronoun *iir* 'they'. This syntactic asymmetry in potential subject marker/absolute pronoun and object marker/absolute pronoun co-occurrence is particularly striking in view of the formal similarity between reconstructed PMC object and absolute pronouns, where four of the seven forms are identical, five if the initial *ng- of *ngai is discounted.

I propose to account for the non-occurrence of 'double' pronominal object marking (by both an object marker and an absolute pronoun) and the formal similarity observed through most of the reconstructed object and absolute pronouns by claiming that in PMC most pronominal objects were in fact absolute pronouns. The hypothesis can be stated as follows: In PMC, absolute and object pronouns were not distinct in the plural. That is, plural pronominal objects were marked by absolute pronouns in NP object position. In the singular, PMC absolute and object pronouns were distinct. First and second person singular object pronouns were verb phrase internal enclitics, while the third person singular object pronoun was a verbal suffix. These proposals may be diagrammed as follows:¹¹

PMC Pronominal Object Marking



We will endeavour to demonstrate that this at first glance over-complex hypothesis regarding PMC object marking reflects a transitional stage in the development of pronominal object marking in Micronesian languages, subsequent to a pre-PMC stage at which all pronominal object marking was by means of absolute pronouns. It will be shown that only

such a hypothesis can account for later developments in daughter languages. We must first, however, consider pronominal object marking in extant Micronesian languages.

3.2. SYNCHRONIC PRONOMINAL OBJECT MARKING

3.2.0. Introduction

Pronominal object marker systems of extant Micronesian languages will be considered in three groups:

- i) those in which absolute pronouns exclusively are used as object pronouns (Mokilese and Pingelapese).
- ii) those in which object pronouns are suffixes to the verb or to some other element of the verb phrase (Gilbertese and Trukic)
- iii) those with mixed systems, or where the morpho-syntax of object pronouns is difficult to determine (Ponapean, Marshallese, and Kosraean).

3.2.1. Absolute Pronoun Object Marking

In two atoll Ponapeic languages, Mokilese and Pingelapese, all pronominal object marking is by means of absolute pronouns. Evidence for this analysis is of three kinds: the form of object pronouns, the syntax of object pronouns, and the morphophonemics of juncture. Data presented is from Mokilese.

Object pronouns and absolute pronouns are not distinct in any form in these languages. From the point of view of our PMC reconstructions, this means that the PMC singular object pronouns have been replaced by reflexes of PMC absolute pronouns. MOK ngoahi 'I, me', koawoa 'you', ih 'he, him/she, her'.¹² Absolute pronoun objects have the same syntax as noun phrase objects. They stand outside and typically immediately following the verb phrase:

MOK Ngoah kapangda woallo
 I see-up man-that
 'I caught sight of that man'

 Ngoah kapangda ih
 I see-up him
 'I caught sight of him'

They can be focussed/topicalised in the same way as noun phrases:

MOK Ioar woallo ma ngoah kapangda
 behold man-that REL I see-up
 'It was that man that I caught sight of'

Ioar ih ma ngoah kapangda
behold him REL I see-up
'It was him that I caught sight of'

The morphophonemic process of junctural lengthening in Mokilese (and the analogous, though somewhat different process in Pingelapese), by which verb phrase (and noun phrase) enclitics are linked phonologically to a preceding verb phrase (noun phrase) constituent, is triggered neither by object noun phrases nor by object pronouns. Thus:

Ngoah pe kapanggoar arai
I still see-then them
'I still see them'
 Ngoah kapang arai
'I see them'

where the final consonant of kapang 'to see' is geminated before the vowel-initial enclitic -oar 'then', but not before the object pronoun arai 'them'.

Ih doakoahdi koawoa
he spear-down you
'He speared you'
 Ih doakoa koawoa
'He lunged at you with a spear'

where the final vowel of doakoa 'to spear something' is lengthened before the consonant-initial directional/perfective clitic -di 'down', but not before the object pronoun koawoa 'you'. Object pronouns, therefore, stand outside the domain of verb phrase internal morphophonemic processes in Mokilese (and Pingelapese).

3.2.2. Suffixed Pronoun Object Marking

3.2.2.0. Similar evidence to that used in adducing the absolute pronoun status of Mokilese and Pingelapese object pronouns can be used to demonstrate that, on the geographic peripheries of Micronesia (in Gilbertese and in Trukic), pronoun objects are suffixes.

3.2.2.1. Gilbertese

In terms of their form and syntax, it is obvious that Gilbertese object pronouns are distinct from absolute pronouns. In all but one case (the second person plural ngkamii 'you (pl.)', where the absolute prefix ng- survives) object pronouns are formally distinct from absolute pronouns. Object pronouns can be shown to occupy a different syntactic

slot from that occupied by noun phrase objects. They can precede directionals (which, to my knowledge, noun phrase objects cannot), as in:

GIL I uota nako te ben
 I carry away art coconut
 'I carried the coconut away'
 I uoti-a nako
 'I carried it away'

and, in the case of the third person plural (animate) object pronoun -ia 'them', can co-occur with a noun phrase object:

I noori-ia ataei akekei
 I see-them child those
 'I saw those children'

Evidence that Gilbertese object pronouns are verbal suffixes, rather than verb phrase enclitics, is somewhat less clear. We will first consider syntactic evidence, then (morpho-) phonological evidence. Verb phrase enclitics are expected to occupy a more or less fixed position in the post-verbal complex; verbal suffixes, a definitely fixed immediate post-verbal position. At first glance, neither of these conditions seems to hold in Gilbertese, as object pronouns may either precede or follow directionals, as in:

GIL I uoti-a nako
 I carry-it away
 'I carried it away'
 I kare-nako-a
 I throw-away-it
 'I threw it away'

where the third person singular object pronoun -a 'it' precedes the directional nako 'away' in the first of these examples, but follows it in the second. Evidence available to me suggests, however, that this variation in the position of the object pronoun is not free. Object pronouns may follow directionals only when the verb root is vowel final, it appears, as with kare 'to throw (something)'. With such verbs, as will be seen in Section 4, the transitive suffix -i does not appear before singular object pronouns:

I kare-a
 'I threw it'

Further, without a pronoun object, kare functions as an intransitive verb 'to throw' and, as such, may be followed immediately by a directional: kare nako 'to throw away'. I would suggest that such Vi-dir constructs can themselves function as compound transitive stems to which

object pronouns can be suffixed. I tentatively hypothesise that it is only in cases that admit of such an analysis that object pronouns can follow directionals. (It follows, then, that with a plural object pronoun, which would require the transitive suffix -i, directionals should not precede pronominal objects:

I kare-i-ia nako
 I throw-i-them away
 *I kare-i nako ia
 I throw-i away them
 'I threw them (animate) away'

Trussel (personal communication) informs me that the only interpretation open for the second of these sentences is 'I threw them (inanimate) to him', where nako functions as a prepositional verb.) Thus, while I cannot claim through these syntactic data to have justified the claim that object pronouns are suffixed in Gilbertese, I hope at least to have demonstrated that their apparent positional flexibility does not preclude such an analysis.

Evidence regarding such morphophonemic phenomena as word- and/or phrase-sensitive stress, which might prove conclusive for an analysis of the morphosyntax of Gilbertese object pronouns, is at present unavailable. There is, however, some morphophonemic data concerning nasal-final stems in Gilbertese that does argue for a suffixal analysis. Recall that PMC *i is lost finally in Gilbertese when preceded by a nasal consonant. The same seems to be true of word-internal *i in the environment N-C, as in: PMC *anitu 'spirit' > GIL anti (compare PMC *manu 'animate counting classifier' > pre-GIL *mani > GIL man). Consider now the following verb forms:

GIL	karinai	'to clothe me'
	kariniko	'to clothe you'
	karinna	'to clothe him/her'
	karina	'to clothe someone'
	kataangai	'to whistle for me'
	kataangko	'to whistle for you'
	kataangnga ¹³	'to whistle for him/her'
	kataanga	'to whistle for someone'
	nimma	'to drink it'
	nima	'to drink something'

where the third person singular forms show NNa, rather than the expected *Nia. This 'assimilation' of /i/ to a preceding nasal before a non-high vowel is a word internal process found also in forms like GIL anna 'land'

< PMC *fanua (compare TRU fenu and MAR āne, showing the effects of FVD). It does not operate across word boundary: GIL karin au 'caulking' (< kari+ni au 'apply-of caulking'). This evidence argues for affixal status for GIL -a 'him/her/it'. Finally, we note some comparative evidence that might argue for the suffixal status of object pronouns in Gilbertese. The first person singular object pronoun GIL ai 'me' (< PMC *ai), unlike its cognates in Trukic (see below) and other Gilbertese object pronouns, follows the verb stems without an -i suffix. (Traditional Gilbertese grammars analyse the first person singular object as a suffix -i following the -a transitive form.):

GIL	noorai	'to see me'
	nooriko	'to see you'
	nooria	'to see him/her/it'
	noora	'to see something'

Though the nature of the phonological changes giving rise to synchronic first person singular object forms in Gilbertese is far from clear, the change itself seems to point toward suffixation. A change *noori-ai > noor-ai yields a consonant-final verb form *noor whose canonical shape violates constraints on the structure of lexically independent forms in Gilbertese. A morph of that shape could only then be a constituent of a word, with a following suffix.

3.2.2.2. Trukic

As in Gilbertese, object pronouns in Trukic are distinct from absolute pronouns (except, and from the point of view of the phonological history of these forms, accidentally in the case of PUA kamamI 'we (excl.)'). They co-occur with noun phrase objects in examples like:

WOL	I	weri-ir	yaremat	kawe
	I	see-them	person	those
	'I saw those people'			

We have already noted (Section 2) that, although final vowel deletion/devoicing applies in these languages, PMC *-i survives under conditions when it would be expected to have been deleted unless protected from FVD by a following suffix. The only likely candidate for such a suffix is the object pronoun. Further, were the object pronouns enclitic to the verb phrase, rather than suffixed to the verb, we would not expect FVD to have affected Trukic reflexes of PMC *ko 'you', since that process does not regularly affect free (unsuffixed) short monosyllables. Reflexes of PMC *ko are, however, subject to FVD in Trukic:

WOL	weri-go	'to see you'
TRU	woporu-k	'to hide you'

Word level assimilation processes apply over the boundary between transitive verbs and object pronouns in Trukic:

i) assimilating the initial *i of PMC *ira 'them' to a preceding vowel in all Trukic languages but Pulo Annian

TRU	túkúmi-ir	'to cover them'
	yémwéchú-úr	'to seize them'
	yónómwu-ur	'to place them'
WOL	weri-ir	'to see them'
	tabe-er	'to accompany them'
	fagola-ar	'to cover them'

ii) in Trukese, assimilating the final vowel of the transitive verb to the (later deleted) final vowel of PMC *ko 'you'

TRU	túkúmi	'to cover him'
	túkúmu-k	'to cover you'
	yémwéchú	'to seize him'
	yémwechu-k	'to seize you'
	woperi	'to hide him'
	woperu-k	'to hide you'

Formal differences between Trukic plural object and absolute pronouns are to a great extent predictable under the hypothesis that the latter, as independent lexical items, underwent compensatory lengthening (see footnote 5) in the post-PMC period, while the former, as suffixes, did not. (We observe that, in Ponapean, where plural object pronouns are not suffixed, they do undergo compensatory lengthening.)

	Trukese		Woleaian		Pulo Annian	
	absolute	object	absolute	object	absolute	object
1pl.incl.	kiich	kich	giishE	gishE	kiisA	kisA
1pl.excl.	áám	keem	gaamamI	gemami		kamamI
2pl.	áámi	kemi	gaami	gami	kaami	kami
3pl.	iir	Vr	iirE	VrE	iila	ila

Only the alternations observed in the first person inclusive and the third person plural forms can be attributed to the regular operation of compensatory lengthening, however. The long vowels of the second person plural absolute forms (and of the first person exclusive of

Woleaian) must be ascribed to paradigm pressure, since compensatory lengthening should not have applied to the bimoric proto-Trukic *kami 'you'. The long vowel of Trukese keem 'first exclusive object' is also irregular under this hypothesis.¹⁴

3.2.3. Mixed Systems

3.2.3.0. The 'mixed' pronoun object systems of Ponapean, Marshallese and Kosraean all show variation or indeterminacy in the treatment of object pronouns. Ponapean object pronouns are, for the most part, obviously verb phrase enclitics, though there is some evidence of absolute pronoun analysis in the third person forms.

Kosraean shows clear cases of both absolute pronoun and suffix analyses and less obvious examples of enclitic analysis. Marshallese data available to me does not permit a clear-cut decision to be made between synchronic enclitic and absolute pronoun analyses. There are no arguments, however, that object pronouns are suffixed in Marshallese.¹⁵

3.2.3.1. Ponapean

Object pronouns in Ponapean occupy two distinct slots in the post-verbal complex:

- 1) after the verb and the enclitic ki(n) 'with' and before the directionals, for direct objects of the verb and pronoun object complements of ki(n)
- 11) after the enclitics ong 'towards'/seng 'from', for pronoun object complements of these items.

That is:

VERB ki(n) OBJ dir {^{ong}_{seng}} OBJ er

Object pronouns do not co-occur with noun phrase objects in Ponapean, as they do in Gilbertese and Trukic. In the third person where such co-occurrence would be expected, object pronouns can, but need not, stand outside the verb phrase in the position occupied by noun phrase objects; that is, they can be given an absolute pronoun analysis. Thus:

PON Sises ketin karongehda irail
 Jesus adv VA-hear-up them
 'Jesus listened to them'

Pwihn loalkong-o pitihdier ih
 group of wise-that trick-down-perf him
 'The wise men had tricked him'

Komw kalohnwuahla ih
 you CA-cross-away him
 'Crucify him'

Ih ari kadar-irail-lahng Pedleem
 he then send-them-away-to Bethlehem
 'Then he sent them off to Bethlehem'

where the first three examples show verb phrase external (absolute) pronoun objects and the last a verb phrase internal (enclitic) pronoun object. I have no examples of object pronouns other than third person singular *ih* 'him/her' within the verb phrase. It is not clear whether these gaps are systematic.

Ponapean plural object pronouns are identical to plural absolute pronouns, compensatory lengthening having applied to both where conditions are met. Singular object pronouns are distinct from singular absolute pronouns except in the case of the third person singular *ih* which functions both as an absolute pronoun and as an animate object pronoun. (As in Mokilese and Pingelapese, inanimate objects are marked by zero.) As already noted, all the examples of third person singular *ih* as an object pronoun are verb phrase external (with absolute pronoun, rather than enclitic syntax).

All the above evidence suggests that object pronouns in Ponapean are predominantly enclitic, except in the third person where there is evidence of at least optional absolute pronoun status. There is no evidence that object pronouns are suffixed in Ponapean. What phonological evidence is available to me confirms this analysis. Thus, for example, epenthetic vowel insertion, applying to break up intolerated consonant clusters in the post-verbal complex, operates over object pronouns, as in:

PON Seri-o pakad-i-kiht-a-la
 child-that shit us away
 'That child shit all over us'

where the vowels /i/ and /a/ are epenthetic. I have no data regarding the application of junctural lengthening before object pronouns in Ponapean.

3.2.3.2. Marshallese

As in Ponapean, the object pronouns of Marshallese are identical to absolute pronouns, except in the first and second persons singular. They typically occupy a position immediately after the verb and do not co-occur with noun phrase objects. Unlike Ponapean, however, the third

person singular absolute pronoun MAR *e* is not obligatory as a third person singular animate object marker, though it may be so used. Thus:

MAR Kwōn jab deñōte
 you-should neg hit-tr
 'Don't hit him'

En kate wōt e jerbāl
 he-should strive-tr just him work
 'He should work as hard as he can'

where *e* 'him' occurs as direct object of *kate* 'to strive' in the last of these two examples.

As can be seen in this last example and in:

Kwōn kate wōt eok jerbāl
 you-should strive-tr just you work
 'You should work as hard as you can'

certain elements can intervene between the verb and an object pronoun (in these cases, the adverb *wōt* 'just'). This fact demonstrates at least that Marshallese object pronouns are not verbal suffixes but does not permit us to decide between a verb phrase internal (enclitic) analysis and a verb phrase external (absolute pronoun) analysis. The difficulty seems to be that the verb phrase in Marshallese, on evidence available to me, is not well defined. On the basis of the data presented here, I cannot then come to a firm conclusion regarding the syntactic status of object pronouns in Marshallese.

3.2.3.3. Kosraean

Object pronouns in Kosraean are identical to absolute pronouns except in the first and third persons singular. The third person singular absolute and object forms will be claimed to reflect the same PMC form, however. In the case of the first person singular, the absolute pronoun *nga* 'I' alternates with the object pronoun *yuh* 'me' as an object marker.¹⁶

All object pronouns except *nga* occur in immediate post-verbal position and may be followed by a directional. Third person singular object pronouns may co-occur with noun phrase objects:

KOS Sru el esam-uhl Sohn¹⁷
 Sru /sg. remember-3sg. John
 'Sru remembers John'

Sru el esam (*-uhltahl) Sohn ac Sepe
 Sru 3sg. remember-*3pl. John and Sepe
 'Sru remembers John and Sepe'

El pahtok-kom-yak
he push-you-up
'He pushed you up'

Morphophonemic variation in the vowel of the third person object, and in the preceding vowel(s) of the verb, suggest that these pronouns are verbal suffixes. Thus:

usruk	<i>'to shake it'</i>
osrokohl	<i>'to shake him'</i>
pihsihk	<i>'to flick it'</i>
puhsuhkuhl	<i>'to flick him'</i>
til	<i>'to pick it'</i>
teluhl	<i>'to pick him'</i>
twen	<i>'to wash it'</i>
twacnuhl	<i>'to wash him'</i>
wuhn	<i>'to carry it'</i>
wanuhl	<i>'to carry him'</i>

where the vowel(s) of the verb lower(s) before the third person object pronoun and where the vowel of the pronoun itself assimilates to the rounding of the preceding vowel(s). The following variation is observed in vowel-final transitive verbs with third person object pronouns:

KOS	suhpuh	<i>'to send it'</i>
	suhpwacI	<i>'to send him'</i>
	sruhnga	<i>'to dislike it'</i>
	sruhngwacI	<i>'to dislike him'</i>

where the vowel ac /ε/ appears in the third person object forms in place of both the final vowel of the verb and the initial vowel of the pronoun object. We might want to consider this /ε/ to be the result of a lowering of the final /e/ appearing before other object pronouns (see Section 2). The vowel of the third person singular pronoun is raised and fronted before the directional yac 'down', as in:

lohsohl	<i>'to tie him'</i>
losilyac	<i>'to tie him down'</i>
suhpwacI	<i>'to send him'</i>
suhpwelyac	<i>'to send him down'</i>

Good (personal communication) notes that KOS yuh/kom trigger morphophonemic changes in a following directional. For example, with the verb lihs 'to chase' we find:

lihskomlac	'to chase you away'	(compare luhslah 'to chase away')
lihskomyang	'to chase you towards'	(compare luhsacng 'to chase towards')
lihskomi	'to chase you down'	(compare lihsyac 'to chase down')
lihskomyak	'to chase you up'	(compare luhsack 'to chase up')
lihskomme	'to chase you hither'	(compare luhsma 'to chase hither')
lihsyuhwot	'to chase me thither'	(compare luhsoht 'to chase thither')

and points out that the post-pronominal directional forms that also appear when the last vowel of a directly preceding verb is high, suggesting earlier final high vowels for these object pronouns (PMC *ai 'me' *kamiu 'you (pl.)'). She further suggests that if, from these morphophonemic changes, we can infer that the directionals are being treated as suffixes, then it seems to follow that the preceding object pronouns are also.

3.2.3.4. Summary

The table overleaf summarises the evidence presented in this section with respect to the synchronic status of object pronouns in Micronesian languages. Historical evidence is not considered.

3.3. THE VERB-OBJECT ATTRACTION HYPOTHESIS

3.3.0. Introduction

We will suggest that the changes observed in the object marking systems of Micronesian languages are the result of a process that may be termed verb-object attraction - a gradual attraction of pronominal objects to the verb, first as verb phrase enclitics and ultimately as verbal suffixes. The motivation for this change is not clear. While Section 5 does suggest a possible causal account for the first step in verb-object attraction, the rise of VP-enclitic third person object pronouns, the account of verb-object attraction given here appears to have a somewhat teleological tone; that is, presenting verb-object attraction as a goal-directed function. The goal in question is that of morphological union between verb and object pronoun. I do not want to rule out such an interpretation *ipso facto*. Given our limited understanding of the nature of grammatical change, any such disavowal of teleological accounts would be no more than ideological.

TABLE II

Synchronic Status of Object Pronouns

Language	Status	Syntax	Morphophonemics	Compensatory Lengthening	Absolute/Object Identity
Gilbertese	suffix	V-obj-dir V-dir-obj in compounds V-obj-NP	post-nasal high vowel phenomena	n.a.	only in 2nd plural
Marshallese	?absolute/enclitic	V-(adv)-obj VP unclear *V-obj NP	none	n.a.	yes, except in 1st and 2nd sing.
Kosraean	absolute nga suffixed 3rd person ?suffix/enclitic otherwise	V-obj-dir V-obj NP [name]	V-obj-(yac) processes	n.a.	yes, except in 1st sing. (nga-yuh) and 3rd person
Mokilese/ Pingelapese	absolute	]VP[obj]NP	none	yes	yes
Ponapean	enclitic (3rd per. absolute)	V-obj-]VP ~]VP[obj]NP +III	VP internal junctural processes	yes	yes, except in 1st and 2nd sing.
Trukic	suffix	V+obj (see also section 3.3.)	some assimilation	no	no

Verb-object attraction is primarily a hypothesis regarding surface syntactic change in the analysis of object pronouns, from an initial analysis as noun phrase objects (occupying NP object position in surface structure) to an analysis as a constituent of verb phrase (as defined in Section 3.1.) and, finally, to morphological union with the verb itself. The initial incorporation of absolute pronouns, as objects, into the verb phrase gives rise to a separate category object pronoun, members of which are initially identical to the corresponding absolute pronouns, but can be expected to then develop independently from the absolute pronouns. The eventual suffixation of object pronouns places these within the domain of word-level phonological processes, thereby further clouding their historical relation to absolute pronouns.

On the basis of the verb-object attraction hypothesis, we can postulate a pre-PMC object marking system in which the absolute pronouns functioned in all cases as object pronouns. Under this hypothesis, the reconstructed PMC system reflects an early stage of verb-object attraction, having begun in the singular without affecting the plural forms and moving from third person to first person. (Recall that we have reconstructed PMC *-a 'him/her/it' as a suffix and PMC *ko 'you' and *ai 'me' as enclitics.) We would expect daughter languages to reflect stages in the verb-object attraction process.

3.3.1. Evidence for Change

When we consider extant Micronesian languages with a view to finding evidence supporting the direction of change following from the verb-object attraction hypothesis, we find that such evidence is contradictory. Let us first consider the evidence supporting the hypothesis, then that evidence which seems to suggest the opposite direction of change.

In each of the extant suffixal systems, Gilbertese, Trukic, and the more problematic case of Kosraean, there is some evidence for an earlier non-affixal system. The survival of the absolute pronoun prefix ng- in the second person plural object suffix GIL -ngkamii suggests an earlier period of identity between object and absolute pronouns, as we have reconstructed for PMC. The survival of ng- in just this form might have some relation to the fact that, of those object pronouns presumed to have been absolute pronouns in PMC, this is the only one whose Gilbertese reflex is consonant-initial - PMC *kit'a 'we (incl.)' > GIL (nga)ira, with loss of PMC *k; PMC *ira > ngaiia 'they'/-ia 'them' (lengthening in the absolute form may be a secondary development conditioned by potential homophony with GIL ngaia 'he/she'). The relationship between consonant-initial shape and the loss/survival of ng in Gilbertese is not clear, however.

I take the Gilbertese form in question to reflect a retention of absolute pronoun shape rather than a change in the direction of absolute pronoun-object pronoun identity because, in all cases of the latter change known to me (see below), the introduced absolute form retains noun phrase syntax. Gilbertese *-ngkamii* is a suffix, however.

Finally, we might cite the irregular loss of the PMC pre-pronoun transitive suffix **-i* before the Gilbertese reflex of PMC **ai* 'me', noted in Section 3.2.2.1., as evidence that the direction of change in Gilbertese has been towards closer binding of verb and object pronoun.

The only evidence of a period of looser verb-object binding in Trukic is syntactic. Object pronouns in Trukic suffix to three classes of elements: to transitive verbs, to those so-called non-particle adverbs that have a verbal source (for example, WOL *ppagIU* 'evenly, equally all' < *ppagIU* 'to be even, equal'), and to prepositional verbs (for example, WOL *ngali* 'to it, for it, with it' < PMC **anga-ni* 'to give'). All such elements are verb phrase internal, though prepositional verbs only optionally so.¹⁸ However, only one object pronoun is permitted in a single verb phrase in Trukic, suffixing to the last element in that phrase that can carry an object suffix. Thus:

WOL *I weri-ir*
 I see-them
 'I saw them'

I weri ppagiu-r lag
 I see all-them away
 'I saw them all'

I fiyangoo-w fiyang we
 I tell-it story the
 'I told the story'

I fiyango ngali-ir fiyang we
 I tell to-them story the
 'I told them the story'

I interpret the variable position of the object pronoun, and the one-instance-per-clause restriction as a reflex of earlier enclitic status for object pronouns in Trukic, whereby the object pronoun occupied a single slot to the right in the verb phrase. The slot itself was defined in terms of those elements that, at still earlier stages in the development of the system, took an object NP complement; i.e. transitive verbs and those elements, like prepositional verbs, that developed from transitive verbs.

Strong evidence for an earlier non-suffixal analysis of object pronouns is found in Kosraean, in the fact that the process of final vowel

deletion has applied to transitive verbs, removing PMC *-i before an object pronoun. This process could only have applied to *-i at a period when it was not 'protected' by a following suffix. Weaker evidence for a post-PMC period of common development for object and absolute pronouns in Kosraean is found in the fact that reanalysis of the pronominal system of Kosraean has affected both absolute and object pronouns - replacement of second and third singular forms by the corresponding plural forms and specialisation of older trial forms to fill the gap left in the plural, loss of the PMC first exclusive plural form and the introduction of an older inclusive trial to fill this gap. The value of this evidence is somewhat weakened by the fact that, in Ponapean and Pingelapese, similar changes have affected the entire pronominal system, including the possessive suffixes and subject markers. This suggests that adjustments to the pronominal system can take place regardless of the synchronic identity of the actual forms. In Kosraean, most of the changes noted above are paralleled in other pronominal subsystems, an exception being the survival of the second person singular possessive suffix KOS -m < PMC *-mu.

Some evidence of a pre-enclitic (absolute pronoun) analysis of object pronouns in Ponapean can be seen in the fact that Ponapean permits two object pronouns in a single verb phrase; one, the object of the main verb or of ki(n) 'with', the other, the complement of ong 'towards'/seng 'from'. This suggests a pre-Ponapean stage at which ong/seng stood outside the verb phrase and took their own noun phrase complement. (For some further discussion, see Harrison 1977b:182-5, 203-5.) As noted in the preceding paragraph, the fact that absolute and object pronouns in Ponapean have been subject to parallel changes in function is very weak evidence for a period of common development, since the same changes have affected the possessive and subject marker subsystems also.

The above remarks summarise available evidence for changes in the development of extant Micronesian object pronoun marking systems from PMC that appear to follow the direction of change predicted by the verb-object attraction hypothesis, from 'looser' to 'closer' binding of verb and object pronoun. Alongside such evidence, however, we must note cases that point to the opposite direction of change. The evidence in question involves cases of replacement of object pronouns reconstructed, for PMC, as being distinct from the corresponding PMC absolute pronouns by reflexes of PMC absolute pronouns. These cases, then, involve the introduction of singular absolute pronouns into the object marking system, as summarised in the following chart:

TABLE III

Replacement of PMC Object Pronouns

	MAR	KOS	MOK/PNG	PON
1st sing.	-	nga (~yuh)	ngoahi/ngehi	-
2nd sing.	-	-	koawoa/kaewae	-
3rd sing.	e	-	ih	ih

3.3.2. Verb-Object Attraction and Final Vowel Deletion

According to the reconstruction of the PMC object pronoun system given in Section 3.1., verb-object attraction was already underway in the proto-language. The process has gone to completion only at the peripheries of geographic Micronesia, in Gilbertese and in Trukic, where all object pronouns have become verbal suffixes. Closer to the geographic core, in Kosraean and Ponapean, we find, along with moves in the direction of closer morpho-syntactic binding of verb and object pronoun, moves in the opposition direction - some replacement of object pronouns by absolute pronouns. The same is true of Marshallese. In Mokilese and Pingelapese all distinct PMC object pronouns have been replaced by the corresponding absolute pronouns.

I suggest that there is a relationship between the resistance to verb-object attraction noted above and the spread of final vowel deletion through Micronesia. Since there is no evidence for FVD in PMC, we must conclude that it is a post-PMC innovation. Further, we conclude that it began in the geographic core of Micronesia, the eastern Carolines, and has been spreading outward toward the peripheries. This hypothesis rests on the fact that all final vowels are deleted in Ponapeic, Kosraean, Marshallese and eastern Trukic, while in western Trukic final vowels are devoiced, but not deleted, and in Gilbertese only post-nasal final high vowels are deleted.¹⁹

Somewhat metaphorically we can now view final vowel deletion as a change that 'pursued' verb-object attraction through Micronesia. It entered the core languages first, at a period before verb-object attraction had progressed very far beyond its PMC stage, and blocked (or hindered) further development of verb-object attraction in those languages. Closer to the peripheries, however, in Trukic and in Gilbertese, verb-object attraction moved to completion before being 'overtaken' by final vowel deletion.

The operation of final vowel deletion to transitive verbs in languages where object pronouns had not already developed into suffixes

would have hindered any further development towards suffixation by creating canonical shapes not amenable to the suffixation of object pronouns. Four of the six relevant PMC object pronouns (all but PMC *ai 'me' and *ira 'them') were consonant initial.²⁰ When final vowel deletion applied to delete the PMC *-i suffix of transitive verbs, the result, in most cases, was a consonant-final transitive verb form. Since internal consonant cluster tolerance is low in most Micronesian languages (and, presumably, lower at this period), a string of the shape C]_V#[C..]_{obj} pro would not easily have been reanalysable as C]_V+C..]_V. (All cases of suffixation in Micronesian languages known to me, barring the problematic ones of Kosraean, show a canonical shape CV+C .. or C+VC.)²¹

While this proposal may provide an account of the failure of suffixed object pronoun systems to arise in languages where final vowel deletion applied at an early stage in the verb-object attraction process, it does not account for the drift back towards an absolute object pronoun system. Nor am I able to provide an account of such changes here. It does appear, however, that once verb-object attraction had been blocked there was some pressure to re-establish the earlier system. The source of that pressure is not completely clear. The decision to reconstruct PMC plural object pronouns as absolute pronouns, based to a large degree on identical absolute and object pronoun reflexes (or regularly reconcilable reflexes) in daughter languages, was also an attempt to account for the reintroduction of absolute pronouns on the basis of the fact that the pattern may still have been extant in some forms at the time of final vowel deletion. We return to this problem in Section 3.4.

There is some evidence of an attempt to counteract the inhibiting effects of final vowel deletion on verb-object attraction in the core languages by altering the canonical shape of object pronouns. The evidence in question comes from the form of the second person singular object pronoun in Ponapean and Marshallese: PON uhk and MAR eok. (PMC *ko 'you' is not reflected in other core languages.) In Ponapean and Marshallese, an enclitic or absolute reflex of PMC *ko should have a form resembling *ko, with possible changes in the quality of the vowel. (A suffixed *ko would of course be reflected as *-k.) The extant reflexes can perhaps be accounted for under a hypothesis that *ko metathesised to *ok in an attempt to preserve a canonical shape acceptable to verb-object attraction. (Metathesis would be ruled out in the polysyllabic plural forms.) This hypothesis faces difficulties, however, since it fails to account for the initial e- glide in Marshallese and for the raised and lengthened vowel in Ponapean. Marshallese e- may,

in this instance, be a prothetic glide, though we would perhaps expect a homorganic (that is, rounded) glide. The lengthening and raising of *o in the Ponapean reflex may be a secondary development from a prothetic glide, following a sequence *ko > *ok > *wok > uhk. If the lengthening in the Ponapean reflex is simply compensatory (see footnote 6), the raising of *o > u remains problematic. In spite of these problems, it seems to me that metathesis must be assumed to have applied to the forms in question.²²

What is perhaps surprising in light of the claim that metathesis operated to restore CVCVC structure in verb-object pronoun sequences is the fact that the same process can be considered to have applied in the development of PON ie MAR eō KOS yuh 'me' > PMC *ai 'me'. The expected reflexes of PMC *ai are PON *ei (or *ahi, if lengthened), KOS *a, and either *ā or *e in Marshallese.²³ Ponapean ie can only be accounted for if we assume metathesis. Marshallese ō might be a reflex of PMC *ai (though not otherwise attested to my knowledge), but the initial e- of MAR eō remains problematic, unless a prothetic glide. This segment is somewhat less problematic if we assume a sequence *aj > *əj > *iə > eə (eō). A prothetic glide account of the initial y- of KOS yuh is possible, but fails to account for the raised [ʌ] reflex of PMC *ai. In any case, I cannot integrate the metathesis of PMC *ai 'me' into my account of that of PMC *ko in these languages.

To summarise, we maintain that those changes following from the verb-object attraction hypothesis are the expected developments in Micronesian languages. This process was impeded, however, by the process of final vowel deletion, which created canonical shapes unamenable to the eventual suffixation of object pronouns. In 'peripheral' languages (Gilbertese and Trukic), however, the shift to suffixation was completed before final vowel deletion had entered these languages.

3.4. POST-PMC DEVELOPMENTS

3.4.1. Gilbertese

Because of the recent and restricted application of FVD in Gilbertese, the transitive suffix system of PMC is preserved intact in that language. The sole modifications have been i) the optional lengthening of -i forms, creating such alternations as:

GIL	noorii~noori	'to see them'
	karinii~karin	'to dress them', where final vowel has applied to /i/ after a nasal,

and ii) the loss of *-i before the first person singular object pronoun ai 'me'. The inclusive/exclusive contrast in the first person plural

has been lost throughout the Gilbertese pronominal system, only inclusive forms being reflected. A significant change has been the extension of the third person plural object pronoun in two directions:

1) into NP expressed object contexts

I take this change to be an innovation under the hypothesis that plural object pronouns were absolute in PMC. Their occurrence with a NP object would thus be precluded, since two elements could not occupy NP object position simultaneously. This innovation has only taken place in languages in which object pronouns have become suffixed - Gilbertese, Trukic and, under restricted conditions, Kosraean (see footnote 17).

11) with non-human reference

It appears that the third person plural pronominal object form alternates with the -i form with non-human reference when no NP object is present. Note also that these forms appear to alternate freely in non-human animate contexts, whether or not the object is an expressed NP. Only the third person plural pronominal form appears with human objects, however.

Finally, we have argued above that all object pronouns are suffixed in Gilbertese.

3.4.2. Marshallese

The operation of FVD in Marshallese has conflated PMC *-a and pre-pronominal *-i forms to a zero form found with object pronouns and noun phrases. PMC *-ia is claimed here to have survived as MAR -e, while PMC *-i in non-human third person plural anaphoric object contexts survives as MAR -i (via a pre-Marshallese *-ii# stage). As already noted in Section 2, MAR -e/-i are obligatory when the object is not expressed (by a pronoun or NP) and generally absent otherwise. They can appear, however, with expressed objects: In such cases, except as noted below, -i remains restricted to non-human plural objects, while -e, though optional, can be found with plural objects:

- MAR Ear deñōt(e) ladik ro
3sg.-pst slap-(e) boy the (pl.human)
'He slapped the boys'
- Ear deñōt(e) kweet ko
3sg.-pst pound-(e) octopus the (pl.non-human)
'He pounded the octopuses'
- Ear deñōt(i) kweet ko
'He pounded the octopuses'
- *Ear deñōti ladik ro

As Bender (n.d.) suggests, it would appear that MAR -e/-i are being reinterpreted as transitive markers, rather than simply as object markers.

With some verbs, where the presence of -e/-i is the only formal difference between transitive and corresponding intransitive (infinitive) forms, this modification in the status of -e/-i is complete. In such cases, the suffixes are obligatory in all transitive contexts. For example:

MAR	Ear	boke	ladik	eo	
	3sg.-pst	sand-e	boy	the	
		'He threw sand on the boy'			
	Ear	boki	wa	ko	
	3sg.-pst	sand-i	canoe	the	(pl.non-human)
		'He threw sand on the canoes'			

The distinction between -e and -i transitive forms has become further clouded in Marshallese by what appears to be a process of vowel harmony. Verbs whose last (pre-suffix) vowel is high take only the -i suffix, obligatorily under conditions parallel to those of the preceding paragraph, optionally otherwise. Thus:

MAR	kilburi	'to cover something'	(cf. kilbur 'blanket')
	taniji	'to dance with someone'	(cf. tanij 'dance')
	jañūt(i)	'to cry for something'	(cf. jañ 'to cry')
	kiil(i)	'to close something'	(cf. kkiil 'to close')

Some twenty-five exceptions to transitive suffix harmony have been found, including:

aike	'to tow something'
ruje	'to break something'
ute	'to rain on something'

As already noted, it is difficult to determine whether the object pronouns of Marshallese should be analysed as having enclitic or absolute pronoun syntax. We note also that the third person singular absolute pronoun *e* has been introduced into the object marking system.

3.4.3. Ponapeic

As in Marshallese, PMC *-i and *-a have both been reduced to zero in Ponapeic except, as noted in Section 2, *-i forms survive with vowel-final transitive verbs in Ponapean (see also Section 4) before object pronouns. Further, as suggested in Section 3.1, all PMC third person object marked transitive forms (PMC *-a, *-ia, *-i) appear to have been reduced to a single form, perhaps pre-Ponapeic *-a.

In Mokilese and Pingelapese, the two remaining distinct object pronouns (PMC *ko 'you' and *ai 'me') were replaced by the corresponding absolute pronouns, giving rise to the extant absolute pronoun object marking systems of these languages. In Ponapean, object pronouns developed as enclitics though, as noted in Section 3.2.3.1., third person object pronouns can have absolute pronoun syntax.²⁴

3.4.4. Kosraean

Like Ponapean, Kosraean reflects only a zero transitive, though retaining an *-a/*-i distinction for vowel-final verbs (see Section 2). As in Ponapeic also, it has collapsed all third person object transitive forms. The most marked Kosraean innovation in the pronominal system has been the replacement of second and third person singular absolute and object pronouns by the corresponding plural pronouns - KOS kom 'you' < PMC *kamu 'you (pl.)', KOS el 'he, she' ~ uhl 'him, her' < PMC *ira 'they, them'. Older trial forms, komtahl and eltahl ~ uhltahl, now function as plurals.

As already noted, Kosraean has replaced the PMC first person exclusive forms by original first person inclusive trials. It has also introduced the absolute pronoun nga 'I, me' into the object marking system as an alternate for 'you' (<PMC *ai 'me'). As an object pronoun, nga retains absolute pronoun syntax. The suffixal status of the third person object pronouns KOS uhl(tahl) may be a recent development in Kosraean, but it is impossible to demonstrate this fact conclusively. Whether the remaining object pronouns of Kosraean should be regarded as enclitics or suffixes is not clear.

3.4.5. Trukic

The proto-Trukic transitive marking system is assumed to have been similar to that proposed for pre-Ponapeic/Kosraean; an *-i form for expressed pronoun objects and an *-a form otherwise (in the case of thematic verbs at least - see Section 4 for an account of vowel-final verbs). Unlike Ponapeic/Kosraean, however, PMC *-i survives as -i before object pronouns. The principal Trukic innovation in this system was the emergence of an -i third person form. I hypothesise that the survival of PMC *-i before object pronouns resulted in an analysis of -i final forms as transitive stems (minus suffixed object pronouns). These stem forms were then open to reanalysis as unmarked (third person) object forms. This reanalysis was facilitated by the operation of FVD, devoicing the final vowel of older *-a forms. Paradigm pressure from the -i form then resulted in the replacement of the *-A form by a new, unmarked -i third person.

In western Trukic a new non-human third person plural object suffix *-ni* was introduced. Both its source and distribution are as yet unclear. It is found in Pulo Annian, Woleaian and Puluwatese, but is unattested, so far as I am aware, in Trukese, Satawalese, Ulithian and Saipanese Carolinian. The *-i/-a* transitive contrast in Satawalese and Puluwatese has already been noted (footnote 9). I will not comment further on it here.

4. VOWEL-FINAL TRANSITIVE VERBS

The discussion thus far has focused on what have been termed the thematic transitive verbs in Micronesian, those verbs that preserve a reflex of a POC final consonant (protected from final consonant deletion by a following transitive suffix). Such verbs, then, reflect a POC verb class of the following canonical shape:

$$\begin{aligned} & [...CVC]_{V_1} \\ & [...CVC+suf]_{V_t} \end{aligned}$$

Alongside this large set of POC transitive verbs with consonant-final roots, we can infer there to have been a smaller set of transitive verbs with vowel-final roots (for example, POC **dono* 'to hear'; **kila* 'to see, to know'), having the shape:

$$\begin{aligned} & [...CV]_{V_1} \\ & [...CV+suf]_{V_t} \end{aligned}$$

It is possible that vowel-final transitives created phonotactic difficulties as early as the POC period, these difficulties arising from the juxtaposition of syllabic segments (the final vowel of the root and the vowel of the transitive suffix), particularly if it were the case that the only (or the most frequent) transitive suffix was POC **-i*. That **-i* suffix may either have 1) remained syllabic or 11) been converted into a glide when preceded by a root-final vowel. Some POC vowel-final transitive verbs may have been treated as 'suffixless' transitives, requiring only an object pronoun or noun phrase when used transitively (see Pawley 1973:135, Harrison 1977b:125-6 for some discussion), though it is doubtful that such a class was defined in terms of canonical shape alone. We will not consider the suffixless transitive class further here.

The consonant-final transitive verbs of POC cannot properly be termed 'thematic' transitives, as that term is usually understood in Oceanic, since the pre-suffix consonant of the transitive form was transparently the final consonant of the transitive form's non-transitive source. The

thematic class arose after the loss of POC final consonants. This change gave rise to transitive/intransitive pairs of the following shape:

$$\begin{aligned} & [\dots C_1 V_1]_{V_1} \\ & [\dots C_1 V_1 \dot{C}_2 + \text{suf}]_{V_t} \end{aligned}$$

where C_2 is the thematic consonant. (For discussion of the history of thematic transitives in Oceania see Harrison 1977b:61-79 and the references cited therein.) After the loss of POC final consonants, the morphological relationship between transitive and intransitive verb forms of this sort could no longer be described in terms of a simple suffixal increment, since the identity of the thematic consonant was unpredictable. The relationship between transitive and intransitive forms of vowel-final verbs remained straightforward, as in POC before final consonant deletion:

$$\begin{aligned} & [\dots C_1 V_1]_{V_1} \\ & [\dots C_1 V_1 + \text{suf}]_{V_t} \end{aligned}$$

These two canonically-defined transitive verb classes, thematic and vowel-final, can be assumed for PMC also. Since, in extant Micronesian languages, PMC canonical shape is best preserved in Gilbertese, we turn first to a consideration of vowel-final transitive verbs in that language.

The regular transitive paradigm for vowel-final verbs in Gilbertese differs from that of thematic transitives only in that no -ii# forms are found in the former. Thus:

	wete 'to call'		ata 'to know'	
	sing.	plur.	sing.	plur.
1st	weteai	weteiira	ataai	ataiira
2nd	weteiko	weteingkamii	ataiko	ataingkamii
3rd	weteia	weteiia	ataia	ataiia
NP	wetea	wetei	ataa	atai

Transitive forms of verbs whose final vowel is short and non-high are typically formed in this manner.²⁵ If the final vowel of the root is short and high, however, the suffix -i appears only in the second person singular, and in the third person plural inanimate. An example is the verb *toobia* 'to massage someone':

	sing.	plur.
1st	toobiai	toobiira
2nd	toobiiko	toobingkamii
3rd	toobia	toobiia
NP	toobia	toobii

We can account for the differences observed between high-vowel and non-high vowel paradigms in terms of two processes; one shortening /iii/ sequences to /ii/ (in the first and third person plural forms), the other, somewhat surprisingly, shortening /ii/ sequences to /i/ before a [+son] segment (in the third person singular and second person plural forms). The motivation of this latter adjustment is not at all clear to me.

What is of interest in these high-vowel final paradigms is the fact that the forms of the plural and third person singular are identical to those we would expect in a thematic paradigm. That is, in such paradigms, the /i/ preceding plural and third person singular pronominal object suffixes could be interpreted as the transitive suffix -i and the third person plural inanimate form might be interpreted as a thematic -ii form. It would not be unexpected, then, to find some confusion between high vowel final and thematic paradigms in Gilbertese, as in:

otoriki 'smashed' (<oto 'broken' + riki 'more')		
	sing.	plur.
1st	otorikai~otorikiai	otorikiira
2nd	otorikiko~otorikiiko	otorikingkamii
3rd	otorikia	otorikiia
NP	otorika~otorikia	otorikii

iki 'to pound' (PMC *tuku 'to pound')		
	sing.	plur.
1st	ikai~ikiai (ikuai)	ikiira (ikuira)
2nd	ikiko~ikiiko (ikuiko)	ikingkamii (ikuinkamii)
3rd	ikia (ikua)	ikiia (ikuia)
NP	ika~ikia (ikua)	ikii (ikui)

Competing paradigms of this sort are not common for vowel-final verbs whose final vowel is non-high. The only example of which I am aware is the verb *oto* 'broken', with two third person singular forms (*oteia~otia* 'to break it' - /o~e/ alternations of the sort seen in forms of this verb are common in Gilbertese). As will become clear when we consider

the history of vowel-final transitive verbs in other Micronesian languages, we can assume that paradigm confusion for high vowel transitive verbs was a feature of PMC also.²⁶

Under the assumption that transitive marking for PMC vowel-final verbs was basically like that of modern Gilbertese, we then reconstruct the following patterns:

1) non-high vowel final verbs

PMC [...CV+i]	*-i form
*[...CV+i+a]	suffixed third singular form
*[...CV+a]	*-a form

ii) high vowel final verbs

PMC [...Ci]~[...Ci+i]	*-i form
*[...Ci+a]~[...Ca]	*-a form
*[...Ci+a]	suffixed third singular form

Let us now consider the effects that final vowel deletion would have had on this hypothetical system in all daughter languages but Gilbertese, where it has not applied, and Trukic, where it applied after object pronoun suffixation. The following table summarises predicted outcomes of the application of final vowel deletion to vowel-final transitive verbs. Note that the exact quality of resulting final vowels is often difficult to predict.

TABLE IV

Predicted Vowel-Final Transitive Verb Shapes

PMC	non-high vowel			high vowel		
	Ponapeic	Kosraean	Marshallese	Ponapeic	Kosraean	Marshallese
*-i	CVi -hi front	CV -hi front	CV -hi front	C~Ci	C~Ci	C~Ci
*-a	CV -hi	CV -hi central	CV -hi	C~Ci	C~CV -hi front	C~CV -hi front
*-ia	CVi -hi	CV -hi front	CV -hi front	Ci	CV -hi front	CV -hi front

Predictions for Ponapeic are based on the assumption that, while PMC final syllabics are deleted, final glides are not subject to FVD. Predictions for Kosraean and Marshallese are based on the assumption that

final vowel-glide sequences, either PMC or post-PMC (following FVD), monophthongise to the predicted values. (Bender's phonemicisation of Marshallese treats the synchronic reflexes of these sequences as retaining a final glide.) Data supporting these assumptions can be found in Marck 1976.

As assessment of the extent to which the predictions of the above table are borne out is hampered by the paucity of secure PMC reconstructions of vowel-final transitive verbs. The following table represents those I have been able to identify.

TABLE V
PMC Vowel-Final Transitive Verb Reconstructions

	PMC	GIL	MAR	KOS	PON	WOL
*tuku	'to pound'	ika, ikia	jukjuki, jukjuke	tuk	suki, suk	siugiu
*matau	'to fear'	maakua, maaka	mijake	-	mesek	metagiu
*fatu	'to weave'	atia, ata	aje	otwe	pa	faiuw
*t'anu	'to water'	-	dāne	-	-	shaliuw
*ngafa	'to measure'	ngaaea	neeje	-	ngape(i)	ngefa
*kila	'to see, know'	kinaia, kinaa	-	-	-	giula
*ata	'to know'	ataia, ataa	j-aje	etuh, etwe	ese(i)	-

Non-high vowel verbs emerge in Ponapeic much as predicted in Table IV, with a zero (root vowel) form and an -i form. Thus:

PON	ese	'to know it/something'
	esei kumwail	'to know you (pl.)'
	sauwas	'to help'
	seuwese	'to help with it/something'
	seuwesei kumwail	'to help you (pl.)'

As in the thematic class, however, the *-ia and *-i# forms have merged with the *-a (later zero) form.²⁷ In Mokilese and Pingelapese, where absolute pronouns function as object pronouns, the synchronic -i form found in Ponapean is not attested.

Ponapeic reflexes of high-vowel final verbs have only a single transitive form, typically a zero (consonant-final) form. This suggests that these verbs have been reanalysed as thematics (where the root final high vowel was treated as the transitive suffix *-i). This

conclusion is, however, based on scant data. As noted in Table V, PMC *tuku 'to pound' has two competing transitive reflexes in Ponapean, one consonant-final (thematic), the other high vowel final.

Both PMC *-a and *-i forms for non-high vowel final transitives are reflected as predicted in Kosraean:

KOS	etuh	'to know it/something'
	etwe kom	'to know you'
	sruhnga	'to dislike it/something'
	sruhngwac kom	'to dislike you'

As in Ponapeic, Kosraean reflexes of high-vowel final transitive verbs have only a single form; a zero form in the case of KOS tuk 'to pound' and a non-high front vowel final form (from a PMC *..V+a# form) in the case of KOS otwe 'to weave something', if that form is in fact a reflex of PMC *fatu 'to weave'. PMC *-ia and *-i# forms appear to have merged with *-a forms for Kosraean vowel-final verbs also.

Marshallese reflexes of PMC non-high vowel final transitive verb forms are expected to have a final non-high vowel, synchronic -e# in the case of PMC *V+i# and *V+i+a# forms. For PMC high vowel final verbs we predict a synchronic -i# form (from PMC *i+i# and an -e# form (from PMC *i+a#), alternating with zero forms if there was some confusion between high vowel final and thematic analyses for such verbs.

It appears, however, that all PMC vowel-final verbs have been re-analysed as thematics in Marshallese. This outcome is not surprising, since -e, -i and -Ø forms, parallel to those of the Marshallese thematic paradigm, were available as regular synchronic reflexes in the case of PMC high vowel final verbs, as were -e forms for PMC non-high vowel final verbs. In the Marshallese reflex of PMC *ngafa 'to measure in fathoms' (MAR ñeeje 'to measure it in fathoms'), we note the introduction of a spurious /j/, which I interpret as a device for preserving a thematic analysis for this verb following the loss of PMC *f in Marshallese.

Allowing for a pre-Trukic neutralisation of PMC *-ia, *-a and *-i# forms (to pre-Trukic *-a), Trukic reflexes of PMC vowel final transitive verbs would be predicted to take the following form:

	non-high vowel		high vowel	
PMC	*V+a	*V+i#pro	*Ci+a ~ *C+a	*Ci#pro
Trukic (W)	V+A	V+i+pro	Ci+A ~ C+A	Ci+pro
Trukic (E)	V		Ci ~ C	

where final vowels are devoiced in western Trukic, but deleted in eastern Trukic. These predictions are borne out only in so far as Trukic reflexes of two (out of four) reconstructed PMC high vowel final transitive verbs have synchronic thematic paradigms - WOL *siugiu* 'to pound it' < PMC *tuku 'to pound', WOL *metagiu* 'to fear it' < PMC *matakū 'to fear'). In other respects, these predictions appear to fail for modern Trukic.

This failure may only be apparent, however, as we have yet to consider a large class of Trukic transitive verbs, the *y/w* verbs. This label reflects the fact that the third person singular form of these verbs ends in a glide agreeing in rounding with a preceding vowel (followed by a voiceless reflex of PMC *a in those languages where final vowels have not been deleted). Three significant properties of the *y/w* verbs can be noted:

- 1) no historically thematic verbs fall into this class
- ii) the stem (with object suffix removed) of verbs in this class may end in any non-low vowel²⁸
- iii) the stem final vowel is always long.

Some examples of *y/w* verbs are:

WOL	<i>mangiyy</i>	'to remember him'
	<i>giuw</i>	'to bite him'
	<i>fiyangoow</i>	'to tell it'
	<i>tabeey</i>	'to accompany him'
TRU	<i>kuuw</i>	'to bite him'
	<i>tongeeey</i>	'to miss him'
	<i>fiiwuuw</i>	'to fight with him'
	<i>fichiyy</i>	'to give him a haircut'

WOL *tabeey* 'to accompany him' may be used to exemplify a *y/w* paradigm:

	sing.	plur.
1st		<i>tabeegishE</i> (incl.)
	<i>tabeeyei</i>	<i>tabeegamamI</i> (excl.)
2nd	<i>tabeeg0</i>	<i>tabeegami</i>
3rd	<i>tabeey</i>	<i>tabeerE</i> (anim.)
		<i>tabeenI</i> (inanim.)

While the stem final vowel of *y/w* class verbs is always long, we note that these vowels are not in all cases etymologically long, as can be seen in the following examples:

WOL	fiyangoow	'to tell it'	(cf. fiyangO 'story')
	shapiiy	'to begin it'	(cf. shapI 'beginning')
	faliuw ²⁹	'to scratch it'	(cf. faliU 'scratched').

We may thus infer that a lengthening process of some sort has applied to the stem vowels of Trukic y/w verbs.

As suggested earlier, Trukic y/w verbs are considered to reflect a class of former vowel-final verbs (those that were not reanalysed as thematics). The *-i form of such verbs appears to have been lost in proto-Trukic, being replaced by a lengthening of the final vowel before object pronouns. The y/w glides found in the third person singular of such verbs are originally epenthetic, of the same sort found before Trukic -ei 'me'. Deletion of final vowels in languages like Trukese left this glide as the sole marker of the third person singular. Low vowel final verbs, as noted in Section 3, do not show these glides, since no epenthetic glide would be expected to have arisen between a low vowel and a following *-a transitive suffix. Rather, the result would have been a long /aa/, shortened in all languages by FVD. (We infer that stem-final /a/ was not lengthened before *-a; that is, at no stage did a /aaa/ sequence arise.)

To some extent, then, an independent history for vowel-final transitive verbs is reflected in all Micronesian languages, with the possible exception of Marshallese, where these verbs have merged with the dominant thematic paradigm. In all languages, high vowel final verbs were subject to some confusion with thematic verbs, reflected synchronically in competing paradigms in Gilbertese (and perhaps in the Ponapeic reflexes of PMC *tuku 'to pound') and, in other languages, in the synchronic partition of this class between vowel-final and thematic paradigms. The greatest change from the PMC reconstructions for vowel-final verbs has been the lengthening strategy for vowel-final verbs in Trukic.

The discussion in this section has been restricted to historically vowel-final transitive verbs in Micronesian languages. Transitive forms of synchronic vowel-final roots are, in most cases, treated in a different manner. In Ponapeic and Kosraean these normally enter the productive -i transitive class. For example:

MOK	adma	'to behead'
	admai	'to behead someone'
	juke	'sugar'
	jukei	'to put sugar in something'

KOS	koltah	'coaltar'
	koltahi	'to paint something with coaltar'
	osra	'spear'
	osrai	'to spear something'

In Marshallese, a transitive stem formant $\begin{smallmatrix} -Vk- \\ [+hi] \end{smallmatrix}$ is employed. The suffix -i optionally follows this stem formant, in accordance with the constraints discussed in Section 3.4.2. (Bender (n.d.) suggests that the transitive stem formant $\begin{smallmatrix} -Vk- \\ [-hi] \end{smallmatrix}$ may have its source in an earlier *ki, attested in Ponapeic (Harrison 1977b:186ff.), through metathesis.) Some examples are:

MAR	mukko	'cargo net'
	mukkouk	'to hoist something in a cargo net'
	tuwā	'to spear fish underwater'
	tuwāik	'to spear something underwater'
	lōlō	'to stick with a pointed object'
	lōlōik\lōlōūk	'to stick something with a pointed object'.

In Gilbertese, where final vowel deletion has not applied, our earlier discussion serves also as an account of synchronic vowel-final transitive verbs. I will not consider the formation of transitive verbs from recently introduced vowel-final roots in Trukic, since this question introduces grammatical issues beyond the scope of the present work.³⁰

5. CONCLUSION

5.1. PMC TRANSITIVITY AND POC TRANSITIVITY

A claim central to the present study is that we must reconstruct two PMC transitive suffixes, functionally identical with respect to case marking but syntactically conditioned as follows:

	sg.	pl.	
1st			
2nd		*-i-pro	
3rd			+ human
			- human
NP	*-a	*-i#	

A somewhat similar contrast is found in modern Bauan, where a verbal suffix -i appears with pronominal and proper name direct objects and a suffix -a with noun phrase objects and, so far as I am aware, for

non-human anaphoric objects. Though Bauan -a has been analysed as a more or less direct reflex of POC *-i+a, with irregular loss of *-i, the present study suggests that it may have a history similar to that of PMC *-a, direct suffixation of a POC *a 'third person singular object' to the verb root (see below). A similar account might be given for the Rotuman transitive suffix -a. Whether these three instances of -a transitive forms are to be ascribed to some higher order subgroup of Oceanic or should be considered independent (drift-like) developments is an open question.

From the point of view of the present study, any account of (pre-) PMC transitive marking in terms of two transitive suffixes *-i and *-akini, marking distinct case roles for the object, is immediately suspect on two grounds:

- 1) the fact that the pair of paradigm contrasts of which *-i was a member did not mark case contrasts (recalled that the -i/-a aspectual distinction in central Trukic remains problematic);
- 11) the likelihood that (pre-) PMC *akini was but one member of a pair *akini/*akina.

The second of these observations is borne out in Gilbertese, and in the history of PMC *akini in other Micronesian languages (see Harrison 1977b: 186-200), and is in accord with the analysis of this PMC form as a prepositional verb. The conclusion that seems to follow is that 'close' transitivity in PMC was 'unmarked' or zero-marked, while remote transitivity involved a preposition-like element.³¹

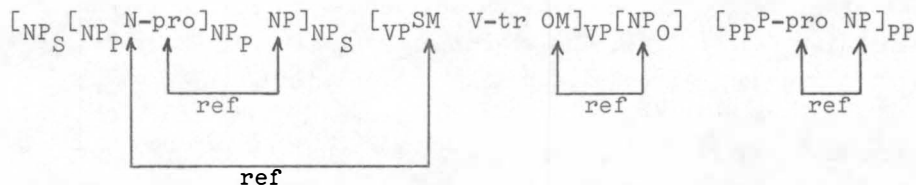
A second significant claim of the present study is that absolute pronouns, occupying a NP object slot external to the VP, were used (in the plural) as pronoun objects in PMC and, further, that in accordance with the verb-object attraction hypothesis, it is likely that the same was true for singular pronoun objects at some pre-PMC period. An examination of the POC reconstructions for independent (absolute) and object pronouns (as, for example, found in Pawley 1972, 1977a) shows the same formal identity between members of these pronominal subsystems, as compared with subject markers and possessive markers, as led us to suspect their lexical and syntactic identity in PMC. An obvious implication is that object pronouns were absolute pronouns in POC and that any object pronouns that are distinct from absolute pronouns in daughter languages represent post-POC innovations. An evaluation of this proposal necessitates a re-examination of data on pronominal object marking in other Oceanic languages. As with other suggestions put forth in this section, this re-examination cannot be attempted here.

This hypothesis conflicts with Pawley's (1977a) claims regarding POC pronouns in the following respects:

- 1) it denies that POC object pronouns were suffixes (Pawley 1977b:3)
- ii) it denies that anaphoric third person object marking was identical to the object marking (transitive marking) used with expressed NP objects (ibid:2).

Neither of these objections needs to be taken as crucial to Pawley's broader claims, however, as can be seen from a closer examination of his proposals.

As I understand these proposals, Pawley claims that Oceanic subject and object markers and 'possessive' suffixes, as distinct from independent (absolute) pronouns, are not properly described as pro-copies of subject/object and possessor noun phrases, respectively, but, rather, carry essential referential information about these noun phrases that is not marked in the noun phrases themselves. (I ignore here the question of how these proposals are to be interpreted with respect to first and second person pronouns.) That is, the referential functions of number and degree of referentiality (definiteness, specificity, etc.) were not marked in noun phrases themselves, but were realised in the relevant person marker. This situation can be described schematically as follows:



where the lines marked ref link noun phrases and the 'pronominal determiners' carrying essential referential information about them. This schema seems to me to be basically correct for a number of extant Oceanic languages and can be assumed to have a long history in Oceania. I would suggest, however, that it is only a first approximation. Many details, both synchronic and diachronic, are yet to be worked out.

Pawley further suggests that the development and loss of 'pronominal determiners' follows a number of implicational hierarchies, the most significant being:

- 1) the grammatical relation hierarchy

$$\begin{Bmatrix} \text{SUB} \\ \text{Poss} \end{Bmatrix} \text{--DO--Oblique NP--Adj}$$

that is, subject/possessive noun phrases acquire pronominal determiners first/lose them last, and so forth.

11) the animateness hierarchy

human - animate non-human - inanimate

that is, human referents are marked by pronominal determiners before non-human animate referents, and these before inanimate (and vice versa for loss)

111) the stativity hierarchy

active - stative

The predicted synchronic consequences of these hierarchies should require no comment.

If NP number and degree of referentiality were not otherwise marked, it is not unlikely that they should be marked pronominally, by pronouns in object position in the case relevant to the present study. What does not follow, however, is that the form of this object marking need have been identical at any period to anaphoric object marking. That is, we are suggesting, in terms of the verb-object attraction hypothesis (assuming that to be the mechanism by which the 'pronominal determiners' in question arose), that pronoun objects may have entered the verb phrase in this referential function (with expressed NP objects) before they did so in deictic/anaphoric functions. This suggestion may be schematised thus:

$$\begin{array}{c} \text{V} \quad]_{\text{VP}}[\text{pro}]_{\text{NP}} \\ \quad \left(\begin{array}{c} \text{I} \\ \text{II} \\ \text{III} \end{array} \right) \\ \text{V-pro}]_{\text{VP}}[\text{NP}_O] \end{array}$$

That is, the PMC third person singular expressed object form in *-a may be the result of an early incorporation of the object pronoun *a into the verb phrase when a NP object was expressed.

We speculate, then, that, at some pre-PMC period, third person object marking was represented as a four-member paradigm along singular/plural and human anaphoric/non-human anaphoric\NP expressed object parameters. The human anaphoric forms were absolute pronouns; the non-human anaphoric\NP expressed object forms, VP internal. By PMC times, the human anaphoric form had taken over non-human anaphoric function in the singular. In the later history of many Micronesian languages, further conflation of these forms has taken place, proceeding faster in the singular than in the plural.

If verb-object attraction needed a trigger, we might suggest that this trigger was the 'syntactic crowding' that resulted from the use of object pronouns as determiners in expressed NP object contexts.

Since, under such circumstances, the NP object slot was filled by a NP, the pronominal determiner was drawn into the VP. This change might then have provided a model for the eventual incorporation of all object pronouns into the VP.

The remarks in this section on pre-PMC and POC transitive marking are highly speculative. They are intended only to suggest that a reconsideration of the data on which previous reconstructions of POC transitive marking were made is perhaps in order. More specifically, the present study does not presume to be a refutation of the broad thesis of Pawley (1977a) that pronominal elements can be viewed as having referential (determiner-like) functions in many Oceanic languages, though it does call into question his more specific claims regarding the shape of the POC system in this respect.

5.2. A FINAL APOLOGY

This is not the place to discourse at length on the nature of historical explanation in linguistics nor on our unfortunate lack of a theory of linguistic change, particularly of 'grammatical' (as opposed to phonological) change. Of course, any attempt at morpho-syntactic reconstruction must presuppose some notion of how morpho-syntactic change progresses. At present it appears that we can do no more than put forth hypotheses to cover the particular data under consideration, as I have done here in the case of the verb-object attraction hypothesis. Such hypotheses need not be considered necessarily *ad hoc*. The hypothesis in question here appeared, in fact, to be falsified on the basis of the Micronesian data itself, until the influence of final-vowel deletion on verb-object attraction was considered. Sadly, all the proposals made here are question-begging nonetheless, and will remain so until they can be evaluated in terms of a coherent theory.

It should also be pointed out that any attempt to account for linguistic change must appeal to some synchronic theory. Such a theory has been presupposed here with respect to the verb-object attraction hypothesis. I have assumed three degrees of surface 'morpho-syntactic binding', related to the concepts 'word', 'clitic' and 'affix'. A first attempt at an elaboration of this synchronic theory, particularly as regards the clitic/affix distinction, can be found in Harrison 1977b:Chapter 5. The proposals of the present work are not intelligible out of the context of such a theory of morpho-syntactic binding and are immediately suspect if that theory fails.

APPENDIX I

Reflexes of PMC Absolute and Object Pronouns

Plural	GIL	MAR	KOS	MOK	PON	TRU	WOL	PUA
	absol/obj					absol/obj	absol/obj	absol/obj
1pl.incl.	ngaira/ira ¹	kej	kuht	kihs	kiht ³	kiich/kich	kiishE/kishE	kiisA/kisA
1pl.excl.	-	kōmʷkōmmemʷkōm ²	-	kimī	-	áám/keem	gaamamI/gemamI	kamamI
2pl.	ngkamii	komʷkōmī ²	kom ⁴	kimwi	komw(i) ⁵	áámi/kemi	gaamI/gamI	kaami/kami
3pl.	ngaia/ia	er	el/Vl ⁴	ihr	ihr	iir/Vr	iirE/VrE	iia/iA

1. PMC *#k has been irregularly lost in these forms.
2. MAR kōm '1pl.excl.' and kom '2pl.' are western (Rālik) dialect forms.
3. PON kiht is synchronically a first exclusive plural form.
4. KOS kom and el/Vl are synchronically singular forms.
5. PON komwʷkomwi is an honorific singular pronoun; the former used as subject, the latter as object, so far as I am aware.

Singular Object	GIL	MAR	KOS	MOK	PON	TRU	WOL	PUA
1sg.	ai	eō	yuh	-	ie	ey	aiʷei	ei
2sg.	ko	eōk	-	-	uhk	k	g0	k0
3sg.	a	-	-	-	-	(y/w) ⁶	(y/w)E ⁶	(y/w)A ⁶

6. Trukic (y/w) are originally epenthetic glides.

Singular Absolute	GIL	MAR	KOS	MOK	PON	TRU ⁷	WOL ⁷	PUA ⁷
1sg.	ngngai	ṅa	nga	ngoahi	ngehi	ngaang	gaangIU	ngaang†
2sg.	ngkoe	kwe	-	koawoa	kowe	een	geelE	keenA
3sg.	ngaia	e	-	ih	ih	ii	iiyE	iia

7. Trukic first and second person absolute pronouns show some independent developments.

N O T E S

1. Data used in this study come from a variety of sources, varying both in age and in scope. Material on Marshallese is drawn from Bender (1969) and Abo *et al.* (1976), on Gilbertese from Bingham (1908), Cowell (1951), Sabatier (1971), and Groves *et al.* (n.d.). Kosraean data comes from Lee (1975, 1976), Mokilese data from Harrison (1976, 1977a), and Pingelapese data from Welley and Good (1976). Ponapean evidence is based largely on unpublished notes and personal communications. Six Trukic languages are represented in this study: Trukese (Dyen 1965), Woleaian (Sohn 1975, 1976) Ulithian (Sohn and Bender 1973), Pulo Annian (Oda 1977), Puluwatese (Elbert 1974) and Satawalese (Marck, personal communications). Nauruan has not been considered.

Standard orthographies have been used wherever possible: for Marshallese see Abo *et al.* (1976), for Kosraean see Lee (1975), for Mokilese see Harrison (1976), for Ponapean see Rehg (1973), for Trukese see Goodenough and Sugita (1972), for Woleaian see Sohn (1975). Gilbertese data are presented largely as in Groves *et al.* (n.d.). For other languages see the main reference source noted above.

2. I wish to thank Byron Bender, Elaine Good, Jeff Marck, Andy Pawley and Steve Trussel for comments on an earlier version of this paper. As those comments well demonstrate, their views are not necessarily those of the author. I must also acknowledge my debt to Ward Goodenough, whose comments on a paper I presented at the Austronesian Symposium of the L.S.A. Linguistics Institute, Honolulu, August 1977, prompted me to embark on the present study.

3. Final vowel weakening might be a more appropriate pan-Micronesian term for this process since, in western Trukic languages like Woleaian and Pulo Annian, the process devoices, but does not delete, short final

vowels. (Long vowels are however shortened.) Thus: WOL *metagi* 'ache', *maatE* 'eye', *cha* 'blood'. In Gilbertese, final vowel deletion affects only final /i/ after a nasal consonant: PMC **tangi* 'to weep', GIL *tang*, PMC **manu* (<pre-GIL **mani*) 'animate counting classifier' GIL *man*. We might also note that some word-internal *i following a nasal consonant are lost in Gilbertese: PMC **anitu* 'ghost, spirit', GIL *anti*, MAR *anij*, WOL *yaliuIU*.

4. The initial in- of the Mokilese and c- of the Trukese reflexes are reflexes of PMC #CV- reduplication. WOL #ch- in this form is a reflex of PMC **#t'Vt'-*. Note that nouns with initial 'geminate' consonants, as TRU #*cch*, WOL #*ch*, PON #*nt* in these examples, do not undergo compensatory lengthening (see footnote 5). The Kosraean member of this cognate set does not reflect PMC #CV- reduplication. Marshallese shows both reduplicated and unreduplicated reflexes.

5. Monomoric nouns in Ponapean and in Trukic are lengthened by a process usually termed compensatory lengthening. This process affects nouns of the shape (C)V(CV) in western Trukic languages, as in WOL *maatE* 'eye'. (Note that final voiceless A# is raised to E# in Woleaian).

6. My data on the distribution of the Vi transitive form in Ponapean are scant. This form may turn out to be restricted to cases where a consonant-initial object pronoun follows.

7. Following Marck (1976), ** indicates that the form in question is reflected widely but falls Marck's criteria for secure PMC reconstruction (reflexes in at least all but one of MAR, KOS and GIL and in at least one Trukic or Ponapeic language).

8. The productive transitivisers KOS, PNG, MOK -i and PON -ih are claimed (Harrison 1977b:140-9) to have had a source unrelated to PMC transitive affixation.

9. Possible counter-evidence to this view of PMC transitive marking is found in limited data from two central Trukic languages, Puluwatese and Satawalese. Elbert (1974) gives all third person singular thematic forms with a final glide. Thus:

PUL	<i>féeri y</i>	'to do it'	(WOL <i>foori</i>)
	<i>fiti y</i>	'to accompany him'	(WOL <i>fiti</i>)
	<i>wefi y</i>	'to get it'	(WOL <i>weri</i>)

The presence of final glides suggests earlier *-i+a forms, claimed above to have been lost in proto-Trukic. These data are problematic, however, since, so far as I am aware, no other Trukic language shows parallel forms.

Of perhaps more interest is the contrast noted for Puluwatese (Elbert 1974) and Satawalese (Marck personal communication) between what we might term -i and -a transitive forms. On the basis of data available to me, it appears that this contrast is limited to historically low vowel final verbs and to a few thematics. It seems to be aspectual in nature, -i forms being basically imperfective, -a forms perfective:

SAT	Aa nimey waa na	'He bailed the canoe'
	Aa nima waa na	'He bailed out the canoe'
	Aa úlúmi rhaan na	'He drank the water'
	Aa úlúma rhaan na	'He drank up the water'

In the case of low vowel final verbs, it is the -a form that appears to be cognate with transitive verbs in other Trukic languages. These forms can be taken to reflect earlier *-a suffixed forms, where historical *a+a# (for low vowel final verbs) yield synchronic -a#. The source of the -y form for these verbs is not clear. It might reflect either an *-i or an *-ia form. As already noted, the former is not otherwise reflected for vowel-final verbs in Trukic, while the latter, except on the basis of this evidence, cannot be postulated with any confidence for Trukic at all. A third possibility is that this form is a central Trukic innovation of uncertain provenance.

For thematic verbs, the -i form has cognates in other Trukic languages. The -a form for thematics does not appear to be a regular reflex of any of the earlier transitive forms hypothesised here. As a reflex of earlier *-a, we would expect zero through FVD. Unless earlier *-a forms were lengthened irregularly for these verbs, we can only conclude that Satawalese and Puluwatese -a form thematics are the result of recent analogical extension from the low vowel final paradigm. (Included in the Satawalese data supplied to me by Marck were the sentences:

Aa nimeer waa kana	'He bailed the canoes'
Aa nimaar waa kana	'He bailed out the canoes'

The form nimaar is the expected third person plural form with *ira. The source of the nimeer form is unclear, perhaps analogical. These sentences appear somewhat strange to me, moreover, since forms reflecting *ira are not to my knowledge found with non-human objects elsewhere.)

Until more data from these languages become available, the significance of the above evidence cannot be evaluated.

10. See Pawley (1973, 1977b) for some general discussion of the Oceanic verb phrase and Harrison (1977b: Chapter 4) for a discussion of that portion of the PMC verb phrase following the verb (the post-verbal complex).

11. As suggested in the accompanying trees, the distinction between enclitic and suffix can be defined theoretically in terms of the nature of the dominating category node (phrased or lexical). In practice, however, (morpho-)phonological information has been used to distinguish between these two degrees of binding. For some discussion, see Harrison (1977b: Chapter 5).

12. Third person absolute pronouns do not regularly have animate reference:

Ngoah poadokdi suhkoahu/suhkoahk
 I plant-down tree-that/tree those
 'I planted that tree/those trees'

Ngoah poadokdi
 I plant-down
 'I planted it/them'

Inanimate objects are typically zero-marked.

13. Further, though ngng clusters are tolerated in Gilbertese (kataangnga 'to whistle for him') i-deletion does not take place in forms like kataangngkamii 'to whistle for you (pl.)' because, it would appear, CCC clusters are disallowed. However, the form kataangngkamii, showing reduction of an *ngngk cluster resulting from i-deletion, is found. If either or both of these constraints on CCC clusters is restricted to word-internal cases, this constitutes a further argument for suffixal status of object pronouns. I have no data on these questions, however.

14. The retention of PMC *k in the first exclusive and second plural object pronouns of Trukese may have some relation to their suffixal status. PMC *k is often lost before reflexes of PMC *a in Trukese, but the conditions of this loss are far from straightforward.

15. It will be argued in Section 3.4.2. that MAR -e (PMC *-ia 'third person singular object') is not a synchronic object pronoun.

16. My information concerning nga as an object pronoun comes from a native speaker of Kosraean, Lyndon Cornelius. Unfortunately, he provided no examples.

17. In Kosraean, the object pronoun uhl 'him, her' (and the subject marker el 'he, she') co-occur with a noun phrase object (and subject) only when the latter is a personal name.

18. For some discussion of the Trukic post-verbal complex see Harrison (1977b:171-4) and relevant sections of Sohn (1975) and Sohn and Bender (1973).

19. Pawley (personal communication) has expressed some scepticism that a change like FVD could have diffused through the Micronesian language family in the post-PMC without the change having been underway in PMC. I can only suggest that FVD in Micronesian seems to be such a case. As already pointed out, our understanding of the motivation and progress of linguistic changes, particularly of the phenomena usually termed 'drift', is limited. Any scepticism we might have with respect to drift-like changes is healthy, but should not be over-confining.

20. We reconstruct the third person singular *-a as a suffix in PMC.

21. Vowel-final transitive verbs are considered in Section 4.

22. Bender (personal communication) notes several additional examples of this sort of metathesis in Marshallese: bwe'veb 'because', me 'relative marker' ~ em 'and' < PMC *ma/*me.

23. Bender (personal communication).

24. We might note parenthetically some of the changes that have affected plural absolute/object pronouns in Ponapeic. All Ponapeic languages show a three-way number contrast in these forms: direct reflexes of PMC plurals as well as dual and trial forms. Older trials function in all Ponapeic languages as regular plurals. Reflexes of PMC plurals in Mokilese function as what I have termed remote plurals, referring to large amorphous groups. PMC plurals have had a different fate in Ponapean and Pingelapese. Reflexes of PMC *kit'a have replaced the PMC first person exclusive forms, which have been lost. The PMC second person plural has become a polite singular. I have no data on the use of PON/PNG ihr (<PMC *ira 'they').

25. Transitive forms of causatives and compounds whose final vowel is short and non-high often have no -i in the singular.

wiibuaka 'foul language' (wii 'mouth' + buaka 'bad')

wiibuakaai	wiibuakaiira	'to swear at ...'
wiibuakako	wiibuakaingkamii	
wiibuakaa	wiibuakaiia	
wiibuakaa	wiibuakai	

kateke 'sharp' (ka- 'causative' + teke 'pierced')

katekeai	katekeiira	'to pierce ...'
katekeko	katekeingkamii	
katekea	katekeiia	
katekea	katekei	

Gilbertese transitive verbs whose root-final vowel is long have a stem formant -e-, as in:

taboraa 'curse, insult'

taboraaai	taboraaeiira	'to insult ...'
taboraaeko	taboraaeingkamii	
taboraaea	taboraaeiia	
taboraaea	taboraaei	

It appears that some verbs with short final vowels can optionally enter this paradigm: wiibuakaa~wiibuakaaea 'to swear at him'.

26. Bender (personal communication) points out that paradigm confusion in Gilbertese high vowel final verbs rests on the fact that all object pronouns are suffixed in Gilbertese. Under the analysis of PMC object pronouns presented here, this would only have been true for the third person singular object pronoun PMC *a. I can only hypothesise that paradigm confusion entered the PMC system at this point and led to irregular shortening of *-ii forms. Though the case for paradigm confusion in PMC is weakened by the above observation, I feel nonetheless that the synchronic evidence remains suggestive of such an account.

27. The Ponapeic pa reflex of PMC *fatu 'to weave' has been discussed in Section 2.

28. I have noted two exceptions in Trukese: nnetááy 'to look up at him' (where tá is a directional 'up') and yataay 'to ruin it'.

29. Orthographic iu is used for both a short and a long high central rounded vowel in Woleaian.

30. It might be pointed out that many causative verbs whose final vowel is neither /i/ nor /a/ are treated as zero class, rather than y/w class, in Trukic. For example:

WOL	geffato	<i>'to stare at him'</i>
	gakere	<i>'to make him happy'</i>
	gakusu	<i>'to make it sprout'</i>

Transitive marking on causative verbs in Micronesian languages remains largely a mystery to me.

31. It is argued in Harrison 1977b: Chapter 4 that PMC *akini was used with intransitive, rather than transitive verb forms. This is not the case in languages like Bauan, but it is well known that in that language, more often than not, the same verb involves different thematic consonants with reflexes of POC *-i than with reflexes of POC *-aki(ni). I make this observation only to point out that the identification of Bauan -i/-aki as contrasting transitive suffixes is not necessarily straightforward.

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