



**Journal of the Linguistic Society of Papua New Guinea**

**ISSN: 0023-1959**

**Vol. 35, 2017**

# Valence Change in Mussau-Emira

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## Abstract

This paper discusses the different strategies of changing valence of verbs in Mussau-Emira, an Oceanic language of Papua New Guinea, spoken on the St Matthias islands of New Ireland Province. Mussau-Emira has no ditransitive clauses, so the changes are increasing valence of intransitive verbs to create transitive verbs, whether by addition of a transitivizing suffix or causative prefix, and decreasing valence of transitive verbs to create intransitive verbs, by adding affixes to make a reciprocal, reduplication of a transitive verb to make it intransitive, or adding a prefix to make a stative verb.<sup>1</sup>

## 1 Introduction

Mussau-Emira [emi] is an Oceanic language, part of the St Matthias family, which is a first-order subgroup of Oceanic (Lynch et al. 2002, Simons & Fennig 2017). The other language in the family is Tenis [tns], also known as Tench or Enus, which is highly endangered. Published analyses of the grammar of Mussau-Emira (often referred to just as Mussau) include Blust (1984), Ross (2002), Brownie & Brownie (2007) and Brownie (2013). The St Matthias family languages are spoken on the St Matthias Group of islands, in the north of New Ireland Province, Papua New Guinea. Mussau-Emira is spoken on Mussau and its satellite islands (Mussau dialects) and Emira. There are also large numbers of Mussau-Emira people living in Kavieng, the provincial capital and nearest town, as well as in other cities in Papua New Guinea, particularly Port Moresby and Lae. The total speaker population is approximately 6,000, of whom about 3,500 are living on the St Matthias Group islands.

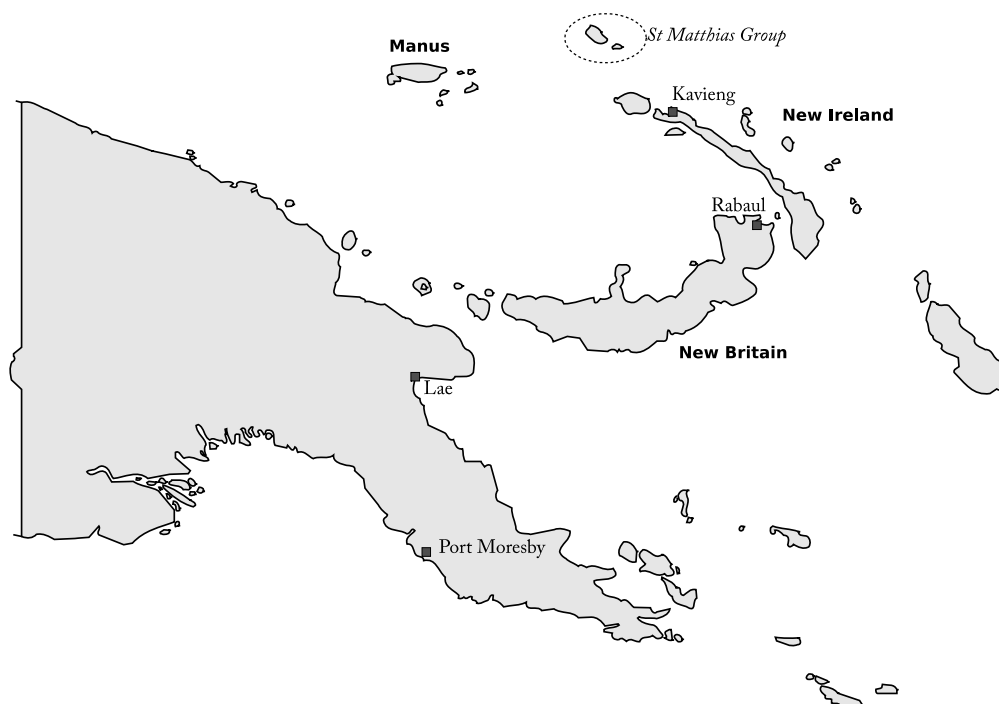


Figure 1 Location of the St Matthias Group

<sup>1</sup>The author would like to thank René van den Berg and the anonymous reviewer for their helpful comments on earlier versions of this paper.

This paper will discuss the strategies that Mussau-Emira uses for changing valence. The description here is applicable to the Mussau dialects, and the Emira dialect may differ. The material in [Brownie & Brownie \(2007\)](#) receives some correction and extension here, in the light of continued fieldwork in the language.<sup>2</sup>

Mussau-Emira has three types of clause, equative, intransitive and transitive. There is no ditransitive structure, with indirect objects being handled with prepositional phrases. There is no passive construction, though there are some verbs which have passive semantics, in that the grammatical object is an experiencer.

An equative clause consists of an optional topic and a noun phrase or adjective phrase followed by the transitivizing suffix *-i* and an object pronoun, which agrees in person and number with the topic. See further discussion and examples in [Brownie & Brownie \(2007:160–2\)](#). There they are considered to be a subclass of intransitive clauses, but may also be considered to be nominal or verbless clauses.

Examples of each clause type are as follows:

- (1) a. *Kuukuu eteva namu=ng=ailli -i-a.*  
 wind SG:I big=LIG=EMP -TRZ-3SG.OBJ  
 ‘The wind was very strong.’
- b. *Taita ateva ghe kasu=la.*  
 man SG:I PST walk=PFV  
 ‘The man left.’
- c. *Norm e=siki-siki olimo-na ateva.*  
 Norm 3SG.SBJ=IPFV-push canoe-3SG.POSS SG:I  
 ‘Norm is pushing his canoe.’
- d. *Ghe tau-e lao sio ta mene katoa eta-imami.*  
 PST give-3SG.OBJ go go.down PREP again some PREP-1PL.EXCL.POSS  
 ‘He gave it to some more of us.’

Note that the equative clause in [\(1a\)](#) has the transitivizing suffix and object pronoun written as a separate word, which is how it is written in the practical orthography, though it is grammatically and phonologically bound to the noun or adjective.

In transitive clauses, the object is represented by a noun phrase or a pronominal suffix, but not both, unless the object NP has been fronted for emphasis ([Brownie & Brownie 2007:103, 120, 165](#)). This is counter to the “canonic” Oceanic language as defined by [Ross \(2004:499\)](#), where the object clitic is usually present even when an object NP is present.

As noted in [Brownie & Brownie \(2007:114\)](#), a few verbs are used both intransitively and transitively without any additional morphology, but the majority of verbs are either transitive or intransitive. Verbs that can be used both intransitively and transitively have been labelled as semitransitive ([Margetts 2008:30](#)) or ambitransitive ([Hill 2011:461](#)), and are where cases of object incorporation or transitivity discord have been noted in other languages ([Margetts 2008](#)). As discussed in [2.1](#), there does not appear to be evidence for either in Mussau-Emira.

<sup>2</sup>Corrections include some spelling issues, and extensions include the *-aa* transitivizing suffix and the *ai-* *-ii* collective circumfix, plus discussion of the semantics of the causative and reciprocal.

In addition to noun phrase and pronominal objects, some transitive verbs take a complement, generally a subordinate non-finite clause introduced by *tani*.

## 2 Increasing Valence

Increasing valence in Mussau-Emira means moving from intransitive to transitive, as there is no ditransitive construction. The two strategies used by Mussau-Emira for this are a transitivizing suffix of one of a number of forms, or a causative prefix.

There are three transitivizing suffixes, *-aa*, which occurs with a noun phrase object, and *-i* and *-aini*, which occur with a pronominal object. Of these, *-i* is a reflex of the Proto Oceanic *\*-i*, and *-aini* is a reflex of *\*akin[i]*. The causative prefix *a-* is a reflex of the Proto Oceanic *\*pa[ka]-*. See [Evans \(2003\)](#) for these Proto Oceanic forms and [Ross \(1988:321-5\)](#) for the consonant correspondence between Proto Oceanic and Mussau-Emira.

### 2.1 Ambitransitive verbs and object incorporation

There are a few verbs which occur both as transitive and intransitive verbs with no change of morphology. The verbs known to behave this way are listed in Table 1.

Verb	Intransitive Meaning	Transitive Meaning
<i>aikamea</i>	tell lies	slander s.o.
<i>aimuli usi</i>	be obedient	obey s.o.
<i>akou</i>	be covered	cover s.t.
<i>ari</i>	really enjoy	hunt
<i>kaurekati</i>	appear	reveal
<i>kkauaa</i>	perform an act of worship	worship s.t. or s.o.
<i>lako</i>	swear	insult s.o.
<i>pake</i>	be under s.t.	put a roof on (a house)
<i>pale</i>	wave	wave at s.t. or s.o.
<i>ssu</i>	suckle	breastfeed (a baby)
<i>toi</i>	wait	wait for s.t. or s.o.
<i>ttirou</i>	escape	frighten away
<i>vao</i>	be carried on shoulders	carry on shoulders or hanging from the neck

**Table 1 Ambitransitive verbs**

There is no apparent pattern here, with intransitive subjects being both undergoers and actors. Most of the meanings are straightforwardly related, though the relationship can be difficult, as with *ari*, which may better be classified as two separate verbs which are homonyms.

Object incorporation is not a feature of verb phrases, but does occur in some nominalised verb phrases, as noted in [Brownie & Brownie \(2007:90\)](#).

- (2) a. *ni-pake ale ateva*  
 NMLZ-roof house SG:I  
 'roofing the house'
- b. *ai-ghaa alomasaanga ateva*  
 INS-get knowledge SG:I  
 'school' (lit. 'place to get knowledge')
- c. *ni-nongo usilaa tama-ita me kina-ita*  
 NMLZ-hear obey father-1PL.INCL.POSS and mother-1PL.INCL.POSS  
 'obeying our parents'

This appears to be relatively rare as a construction, but is productive. The sentence for (2a) is given in (3).

- (3) *Nau ni-pake ale ateva, elue talaua poopooa, Maeka ghe sae=la*  
 time NMLZ-roof house SG:I early.morning Maeka PST go.up=PFV  
*epona tale ale ateva, me ghe ue=la va, "Am sau mae*  
 on PREP house SG:I and PST say=PFV COMP 2PL.SBJ carry come  
*kapa, me ita pake ale ateva."*  
 roofing.iron and 1PL.INCL roof house SG:I  
 'On the day for roofing the house, early in the morning, Maeka climbed on top of the house, and said, "Bring the roofing iron, and we will roof the house."'

Within a clause, object noun phrases stay outside the verb phrase, with no adverbs or clitics occurring after the object NP, which indicates that object incorporation is not a feature within a clause. Only object pronominal suffixes are contained within the verb phrase.

## 2.2 Transitivity

A transitivity suffix can take one of three forms. One, *-aa*, is used only with a noun phrase object, while the other two, *-i* and *-aini*, are used with a pronominal object.

### 2.2.1 Noun Phrase Object

The suffix *-aa* can be attached to various verbs to make them transitive when a noun phrase is present as the object. In our corpus of 75 texts (most written, some transcribed from recordings),<sup>3</sup> the verbs that take the *-aa* suffix are listed in Table 2.

Verb	Gloss	Transitive verb	Gloss
<i>ilou</i>	run	<i>ilou-aa</i>	run away from s.t.
<i>kai</i>	dig	<i>kai-aa</i>	bury
<i>kiu</i>	talk	<i>kiu-aa</i>	tell a story

<sup>3</sup>The corpus is from personal fieldwork of John and Marjo Brownie since 1995. It contains personal narratives, traditional stories, letters, children's stories and poems.

Verb	Gloss	Transitive verb	Gloss
<i>kongo</i>	bark	<i>kongo-aa</i>	bark at s.t.
<i>kupi</i>	cross boundary	<i>kupi-aa</i>	take s.t. across a boundary
<i>mae</i>	come	<i>mae-aa</i>	bring s.t.
<i>mati</i>	be dry	<i>mati-aa</i>	dry out
<i>ose</i>	paddle, row	<i>ose-aa</i>	paddle s.t.
<i>pake</i>	shelter	<i>pake-aa</i>	put s.t. under shelter
<i>roo</i>	be able	<i>roo-aa</i>	be sufficient for s.t., fill up
<i>sae</i>	go up	<i>sae-aa</i>	take s.t. up
<i>sao</i>	travel by sea	<i>sao-aa</i>	take s.t. by sea
<i>savila</i>	be confused	<i>savil-aa</i>	confuse s.o.
<i>soghi</i>	be surprised	<i>soghi-aa</i>	surprise s.o.
<i>tiu</i>	start	<i>tiu-aa</i>	start s.t.

Table 2 Verbs with *-aa*

Some examples are given below. In (4), an intransitive verb *kiu* ‘talk’ becomes a transitive verb by adding the content of the speech. In (5), a motion verb adds a patient object. In (6), there is the unusual case of a verb which is usually used in a serial verb construction becoming transitive with a complement rather than a noun phrase as the object. This appears to be the only verb that exhibits this behaviour.

- (4) a. *La=ghe toka sio=la tani kiu~kiu.*  
 3PL.SBJ=PST sit go.down=PFV INF IPFV~talk  
 ‘They sat down to talk.’
- b. *A=kiu~kiu-aa nau eteva aliki-i-eghi.*  
 1SG.sbj=IPFV~talk-TRZ time SG:I child-TRZ-1SG.OBJ  
 ‘I will tell a story of when I was young.’
- (5) a. *Ghe kupi sso=la tale ale ateva.*  
 PST cross.boundary go.in=PFV PREP house CLF:I  
 ‘She went into the house.’
- b. *Ghe kupi-aa sio=la asi eteva.*  
 PST cross.boundary-TRZ go.down=PFV taro SG:I  
 ‘She put the taro inside.’

- (6) a. *La=ghe aikaai ghoa=la ta Akimbo me la=ghe tiu ghoa=la*  
 3PL.SBJ=PST board go.out=PFV PREP Akimbo and 3PL.SBJ=PST start go.out=PFV

*e=Saio.*

LOC=Saio

'They got on board Akimbo and they started out from Saio.'

- b. *Matauurae ghe sessa-i-e=la me ghe tiu-aa=la tani ngala.*  
 Matauurae PST make.angry-TRZ-3SG=PFV and PST start-TRZ=PFV INF weep  
 'Matauurae became angry and began to weep.'

Verbs that take the *-aa* suffix with a noun phrase will, it seems, almost always take the *-aini* suffix when the object is a pronoun.

Note also that verbs that end with /a/ remove the final /a/ before adding the *-aa* suffix. Alternate analyses are that the long /a/ of the suffix is shortened when added to the existing /a/ at the end of the verb, or that the phonological rule of a short vowel plus a long vowel become a single long vowel is applied here, see [Brownie \(2011:36\)](#).

### 2.2.2 Pronominal Object

When the object is a pronoun, there are two transitivizing suffixes, *-i* and *-aini~eini~ain~ein*. Such suffixes are always followed by an object pronoun, except in the case where an echo vowel has been dropped, as in example [\(14\)](#) below.

As mentioned in [Brownie & Brownie \(2007:103–4\)](#), there are historical reasons to postulate a semantic difference between the two suffixes, but this does not seem to be supported by the data. [Evans \(2003:120\)](#) indicates that there is a semantic difference in some languages, whereas in other languages the use of the two suffixes is lexically determined. From our data, it appears that A-verbs (those where the subject has an actor role, [Ross 2004:504](#)) do not take the *-i* suffix, though there are a few exceptions in the data. U-verbs (those where the subject has an undergoer role) can take either *-i* or *-aini* as the transitivizing suffix. Thus, there is some degree of semantic basis, but also a lexical one, in that no verb is regularly recorded with both suffixes, apart from a questionable recording of *mae-i-a* 'bring it', where *mae-aini-a* is the usual form.

#### 2.2.2.1 Transitivizer *-i*

The transitivizing suffix *-i* is used in three situations. One is when a transitive verb ending with /a/ is to be followed by an object pronoun (similar to Proto Oceanic, [Ross 2004:508](#)). The second is when a transitive verb ending with a long /u/ is to be followed by an object pronoun, in which case the /u/ is shortened, a ligature =ng is inserted, and the suffix added. The third is when an intransitive verb is being changed to a transitive verb. Only the third situation involves a change of valence. The verb *tara* 'see' is transitive, but always takes *-i* when an object pronoun is attached.

- (7) a. *Ghe tara=la lutu katu ng=atoa.*  
 PST see=PFV small snake LIG=PL  
 'He saw small snakes.'
- b. *Karika la=ghe tara-i-engalua=la.*  
 NEG 3PL.SBJ=PST see-TRZ-1DU.EXCL.OBJ=PFV  
 'They did not see the two of us.'

The verb *ghaa* ‘get, receive’ is transitive, but also adds the *-i* suffix when an object pronoun is attached.

- (8) a. *Laa sso sae niu eteae o, me u=ghaa teva*  
 go go.in go.up coconut SG:II that and 2SG.SBJ=get EXIST  
*pasipasi.*  
 drinking.coconut  
 ‘Go climb that coconut tree, and get a drinking coconut.’
- b. *Vara Greg ghe laa ghaa-i-a va kie-na -i-a.*  
 then Greg PST go get-TRZ-3SG.OBJ COMP pet-3SG.POSS -TRZ-3SG.OBJ  
 ‘Then Greg went to get it to be his pet.’

There are a few transitive verbs ending in vowels other than /a/ that always or optionally take the transitivizer *-i*. The verb *kune* ‘seize’ is transitive, but also adds the *-i* suffix when an object pronoun is attached.

- (9) a. *A=ghe kune=la ghaluelange ngaa niu.*  
 1SG.SBJ=PST seize=PFV DU:III frond coconut  
 ‘I grabbed hold of two coconut fronds.’
- b. *Me ghe kune-i-e=la, ghe laa sio tani uvi e-mate-a.*  
 and PST seize-TRZ-3SG.OBJ=PFV PST go go.down INF strike CAUS-die-3SG.OBJ  
 ‘And he seized it, he went down to kill it.’

The verb *kiso* ‘scold’ is transitive, and adds the *-i* suffix when an object pronoun is attached.

- (10) a. *Ghe tiu-aa=la tani kiso Pita.*  
 PST start-TRZ=PFV INF scold Pita  
 ‘He began to scold Pita.’
- b. *Me tue-ingalua ghe tiu-aa=la tani kiso-i-eghi.*  
 and older.sibling-1DU.EXCL.POSS PST start-TRZ=PFV INF scold-TRZ-1SG.OBJ  
 ‘And our older sister began to scold me.’

The verb *suu* ‘send’ is transitive, but shortens the /u/ phoneme, adds the ligature =ng, and adds the transitivizer *-i* when an object pronoun is attached. This is the second situation for adding *-i*, which does not change valence.

- (11) a. *Ghe suu~suu inangari ta kapu-na atoa va aue aiaaghalimane*  
 PST IPFV~send word PREP friend-3SG.POSS PL COMP IRR fifth  
*ateva nau la sio sou-a.*  
 SG:I time 3PL go.down meet-3SG.OBJ  
 ‘He would send word to his friends that on the fifth day they should go down to meet him.’



b. *Aloana ghe sungiela va esae sului*  
*Aloa-na ghe suu=ng-i-a=la va e=sae sului*  
 uncle-3SG.POSS PST send=LIG-TRZ-3SG.OBJ=PFV COMP 3SG.SBJ=go.up burn

*utana ateva.*  
*utana ateva*  
 garden SG:I  
 ‘His uncle sent him to go burn the garden.’

In (11b), an extra morpheme line is added to show the underlying morphemes which would otherwise be obscured by the morphophonemic change. This convention is used in other examples as well.

The intransitive verbs in our corpus of texts that are made transitive by adding the *-i* suffix when a pronominal object is present are listed in Table 3. The transitive verbs, which also take the *-i* suffix, are listed in Table 4. Other verbs that fall into this category are those that are derived with a causative (see section 2.3.1) which end in /a/ or a long /u/.

Intransitive Verb	Gloss	Transitive verb	Gloss
<i>ala</i>	do magic	<i>ala-i</i>	perform magic on s.o.
<i>anna</i>	want (with infinitive)	<i>anna-i</i>	want s.t.
<i>ata</i>	burn	<i>ata-i</i>	burn s.t.
<i>attara matane</i>	boast	<i>attara matane-i</i>	give a hard time to s.o.
<i>kila</i>	know (with a complement)	<i>kila-i</i>	know s.t. or s.o.
<i>ngala</i>	weep, cry	<i>ngala-i</i>	cry for s.o.
<i>polaka</i>	break	<i>polak-i</i>	break s.t.
<i>tike</i>	look out from a height	<i>tike-i</i>	see s.t. from a height

Table 3 Verbs with *-i*

Verb	Gloss	Verb with suffix
<i>ghaa</i>	get	<i>ghaa-i</i>
<i>kata</i>	bite	<i>kata-i</i>
<i>kiso</i>	scold	<i>kiso-i</i>
<i>kune</i>	seize, take hold of	<i>kune-i</i>
<i>lapa</i>	put first	<i>lapa-i</i>
<i>nama</i>	eat	<i>nama-i</i>
<i>pora</i>	wash	<i>pora-i</i>
<i>rroka</i>	untie	<i>rroka-i</i>
<i>runga</i>	stop s.t.	<i>runga-i</i>

Verb	Gloss	Verb with suffix
<i>ruu</i>	finish	<i>ru=ng-i</i>
<i>sapala</i>	pound	<i>sapala-i</i>
<i>soa</i>	spear, shoot	<i>soa-i</i>
<i>suu</i>	send	<i>su=ng-i</i>
<i>tara</i>	look at, see	<i>tara-i</i>
<i>tue</i>	chop (down)	<i>tue-i</i>

**Table 4 Transitive verbs with -i**

The verb *ngala* ‘weep, cry’ is intransitive, but can be made transitive by adding *-i*.

- (12) a. *Ghe kaa~kaooa aliki eteva ta ghe ngang~ngala.*  
 PST IPFV~bounce child SG:I because PST IPFV~weep  
 ‘He was bouncing the child because he was crying.’

- b. *Ngalu ghe tiu-aa=la tani ngala-i-a.*  
 1DU PST start-TRZ=PFV INF weep-TRZ-3SG.OBJ  
 ‘We began to weep for him.’

The verb *tike* ‘look out from a vantage point’ is intransitive, but can be made transitive by adding *-i*.

- (13) a. *Noah ghe ue=la eta-imami va ami tike~tike, va ami*  
 Noah PST say=PFV DAT-1PL.EXCL.POSS COMP 1PL.EXCL IPFV~look.out COMP 1PL.EXCL  
*pae va Emira ia o, poli kasangaulu tenki ghe mati=la.*  
 search COMP Emira 3SG that because ten tank PST dry=PFV  
 ‘Noah said to us that we (stand up to) look out, that we see whether Emira was there,  
 because ten tanks (of fuel) had been used up.’

- b. *Norm ghe tingina=la, ghe taa~tara ailani, ghe tike~tike-i-a.*  
 Norm PST stand=PFV PST IPFV~see island PST IPFV~look.out-TRZ-3SG.OBJ  
 ‘Norm stood up, he saw an island, he saw it from his vantage point.’

As noted in [Brownie & Brownie \(2007:103\)](#), certain verbs which historically had an echo vowel added to a consonant-final form remove the echo vowel and add the *-i* suffix directly. There are very few of these, and *polaka* ‘break’ is the most common. Interestingly, the *-i* suffix is added both when the object is a noun phrase and when it is a pronoun.

- (14) a. *Ghalua a=Siapani lalu ghe uvi~uvi sae atu eteva*  
 two person.of=Japan 3DU.SBJ PST IPFV~strike go.up stone SG:I  
*e=Tangaroasa tale masin gan alulu, me karika poi atu eteva*  
 LOC=Tangaroasa PREP machine.gun DU:IV and NEG EMP stone SG:I

*ghe ta-polaka=la.*

PST STAT-break=PFV

‘Two Japanese were hitting the rock face at Tangaroasa with two machine guns, but the rock wasn’t broken at all.’

- b. *Mene ghalua paka kotoo lalu ghe mene a-suu=la lalu*  
again two big wave 3DU.SBJ PST again CAUS-bathe=PFV 3DU.SBJ

*ghe ghelei pola~polak-i=la anua ateva.*

PST make IPFV~break-TRZ=PFV ship SG:I

‘Another two big waves broke over it and were breaking up the ship.’

- c. *Atu eteva korokoronganaaili ia, karika teva erooro*  
*atu eteva korokorongana=aili -i-a karika teva e=roo~roo*  
stone SG:I strong=EMP -TRZ-3SG NEG EXIST 3SG.SBJ=IPFV~be.able

*tani ghelei polakia.*

*tani ghelei polaka-i-a*

INF make break-TRZ-3SG.OBJ

‘The stone is very strong, nobody can break it.’

Note that *polaka* is usually used as a stative verb with the prefix *ta-* rather than as a pure intransitive verb.

There is a further use of the *-i* transitivizer. As mentioned above, it is used in the formation of equative clauses, where the complement takes the *-i* suffix and an object pronoun suffix which agrees with the person and number of the subject. For further details, see Brownie & Brownie (2007:160–2).

Beyond these cases, the *-i* suffix can occur separated from the verb, occurring at the end of the verb phrase, attached to an adverb.

Probably the most common situation is with the adverb<sup>4</sup> *tee* ‘with’, when it is followed by a pronoun. In this case, *tee* is suffixed with the *-i* transitivizer plus an object pronoun.

- (15) a. *Kina-ghi ghe alousiusi tee-i-enqalua, me*  
mother-1SG.POSS PST feel.sorry with-TRZ-1DU.EXCL.OBJ and

*rarum mata-ne ghe kao=la.*

liquid eye-3SG.POSS PST drop=PFV

‘My mother was sorry for us, and her tears dropped.’

- b. *Niarangise etoka teeiem kanna Vau palepale.*  
*Ni-arangise e=toka tee-i-em kalu-na Vau palepale.*  
NMLZ-bless 3SG.SBJ=sit with-TRZ-2PL.OBJ POSS.CLF-3SG.POSS paramount.chief  
‘The blessing of the Lord be with you.’

Another common adverb that exhibits this behaviour is *akapa* ‘completely’, which is the adverb derived from the verb *kapa* ‘complete’.

<sup>4</sup>This is classified as an adverb because of the way that it functions in the verb phrase, though it also appears to function as a preposition in other contexts. See Brownie (2013) for a discussion of adverbs in the verb phrase.

- (16) a. *Paua atoa la=ghe nama a-kapa-i-e=la.*  
 dog PL 3PL.SBJ=PST eat ADVZ-complete-TRZ-3SG.OBJ=PFV  
 'The dogs completely ate it.'
- b. *A=ghe ailousi a-kapa-i-lalua.*  
 1SG.SBJ=PST love ADVZ-complete-TRZ-3DU.OBJ  
 'I loved them both completely.'

### 2.2.2.2 Transitivity -*aini* and Variants

The second transitivity suffix is *-aini*, which has the form *-eini* following a high vowel, and which also has the variant form *-ain~-ein*, both forms apparently reflexes of the Proto Oceanic *\*akin[i]*. The suffix is always followed by an object pronoun.

In general, any transitive verb ending in a long /a/, or any intransitive verb which would be made transitive by adding the *-aa* suffix, takes the *-aini* suffix in place of the final /aa/. This is support for the possibility that the use of the *-i* and *-aini* suffixes is lexically determined, as verbs that take *-aa* seem to always take *-aini*, and never *-i*, when the object is a pronoun. The transitive verbs ending in a long /a/ appear to follow the pattern of intransitive verbs, as though the final long /a/ is treated as a suffix which is removed before adding the *-aini* suffix.

The intransitive verbs in our corpus of texts which take the *-aini* suffix are listed in Table 5, while transitive verbs ending in a long /a/ which follow this pattern to take the suffix *-aini* are listed in 6.

Intransitive verb	Gloss	Transitive verb	Gloss
<i>ataki</i>	lean to one side	<i>ataki-eini</i>	tip over
<i>ghoa</i>	go out	<i>gho-aini</i>	take s.t. out
<i>kai</i>	dig	<i>kai-eini</i>	bury
<i>kanga</i>	laugh	<i>kang-aini</i>	laugh at
<i>kiu</i>	talk	<i>kiu-eini</i>	tell a story
<i>kupi</i>	cross a boundary	<i>kupi-eini</i>	take s.t. across a boundary
<i>ose</i>	paddle, row	<i>ose-aini</i>	paddle, row s.t.
<i>sae</i>	go up	<i>sae-aini</i>	take s.t. up
<i>senu</i>	shake	<i>senu-eini</i>	shake s.t.
<i>sio</i>	go down	<i>sio-aini</i>	take s.t. down
<i>sso</i>	go in	<i>sso-aini</i>	take s.t. in
<i>suu</i>	bathe, dive	<i>suu-eini</i>	bathe s.o.
<i>vala</i>	lean	<i>val-aini</i>	lean on s.t.

Table 5 Intransitive verbs with *-aini*

Verb	Gloss	Verb with suffix
<i>aileeaa</i>	carry between two people	<i>ailee-aini</i>

Verb	Gloss	Verb with suffix
<i>aisariaa</i>	pull from both ends	<i>aisari-eini</i>
<i>aitaraa</i>	look after, rule	<i>aitar-aini</i>
<i>angгаа</i>	anchor	<i>angg-aini</i>
<i>kaaaa</i>	bounce	<i>kao-aini</i>
<i>kape</i>	offload	<i>kape-aini</i>
<i>karasaa</i>	grind, sharpen	<i>karas-aini</i>
<i>keo</i>	pass by, come beside	<i>keo-aini</i>
<i>kkaluaa</i>	forget, forgive	<i>kkalu-eini</i>
<i>matauta</i>	fear	<i>mataut-aini</i>
<i>tau</i>	leave alone	<i>tau-eini</i>
<i>usilaa</i>	follow, obey	<i>usil-aini</i>

**Table 6 Transitive verbs with *-aini***

Some examples are given below. In (17) and (18), an intransitive motion verb takes the *-aini* suffix to add a patient argument, the item moved by the actor. Similarly, in (19), an intransitive process verb adds a patient argument, though it is not the canoe itself, as might be expected, but a passenger in the canoe.

- (17) a. *U=rou mene taa~tara lao emuli lomos i ta u-ssu saoko*  
 2SG.SBJ=PROH again IPFV~see go behind until PREP 2SG-go.in reach  
*tanganue-m.*  
 home-2SG.POSS  
 'You must not look back until you reach your home.'

- b. *Tau-e mae sio me a=ssu-aini-a tanganue-ghi.*  
 give-3SG.SBJ come go.down and 1SG.SBJ=go.in-TRZ-3SG.OBJ home-1SG.POSS  
 'Give it to me and I will put it in my house.'

- (18) a. *Me e=ghe kune-i-eghi=la me angalu ghe sae=la*  
 and 3SG.SBJ=PST seize-TRZ-1SG.OBJ=PFV and 1DU.EXCL.OBJ PST go.up=PFV  
*elo ale tani tara kina-ingalua ta Mara me*  
 in house INF see mother-1DU.EXCL.POSS APP Mara and  
*nenga-ingalua ta Margaret.*  
 younger.sibling-1DU.EXCL.POSS APP Margaret  
 'And she took my hand and we went up into the house to see our mother Mara and our little sister Margaret.'

- b. *Ghe ghaa=la laelae ateva me ghe sae-aini-e=la*  
 PST get=PFV trochus.shell SG:I and PST go.up-TRZ-3SG.OBJ=PFV  
*e=Mananusa.*  
 LOC=Mananusa  
 'He got a trochus shell and took it over to Mananusa island.'

- (19) a. *Eaa tiulu ose me a=ose?*  
 where EXIST paddle and 1SG.SBJ=paddle  
 'Where is a paddle so I can paddle?'

- b. *La=ghe nnaa=la va la ose-aini-a lao Emira.*  
 3PL.SBJ=PST think=PFV COMP 3PL.SBJ paddle-TRZ-3SG.OBJ go Emira  
 'They thought that they would paddle him over to Emira.'

There are a few transitive verbs not ending in /aa/ that take the *-aini* suffix when there is a pronominal object. In our data, these verbs are *kape* 'offload' and *matauta* 'fear'. The fact that only two verbs show this means that no conclusion can be drawn as to the reasons for this behaviour, semantic or otherwise. The verb *kape* occurs alone with a noun phrase object, with a pronominal object suffix, as well as with the *-aini* transitivizer plus a pronominal object suffix. Note that *matauta* removes the final /a/ before adding the suffix. Also, it is likely that *tau* with the *-aini* suffix is actually another homonym or a different sense, 'leave alone', as in (20), rather than the verb 'give'.

- (20) *Me arova e=sae me e=niu, u=tau-eini-a.*  
 and if 3SG.SBJ=go.up and 3SG.SBJ=coconut 2SG=leave.alone-TRZ-3SG.OBJ  
 'And if it comes up and it becomes a coconut, leave it alone.'

### 2.2.2.3 Transitivity and Serial Verb Constructions

With serial verb constructions, it is normal that objects are attached to the transitive verb in the svc. In particular, a directional verb (or two) at the end of an svc will not take an object pronominal suffix. This applies in general to both transitive verbs and intransitive verbs made transitive by adding a transitivizing suffix.

- (21) a. *Vara ghe taa~tara sio e=tapaa manu, me*  
 then PST DETR~see go.down LOC=in water and  
*ghe tara-i-eghi sio=la.*  
 PST see-TRZ-1SG.OBJ go.down=PFV  
 'Then she looked down into the water, and she saw me.'
- b. *Nau la=ghe sau~sau-e sso elae, la=ghe tit~tiu-aa*  
 time 3PL.SBJ=PST IPFV~carry- go.in shore 3PL.SBJ=PST IPFV~start-TRZ  
 3SG.OBJ  
*tani remoti-a.*  
 INF whip-3SG.OBJ  
 'When they carried him ashore, they began to whip him.'

- c. *La=ghe nnaa=la va la ose-aini-e lao Emira.*  
 3PL.SBJ=PST think=PFV COMP 3PL.OBJ paddle-TRZ-3SG go Emira  
 ‘They thought that they would paddle him over to Emira.’

### 2.2.3 Semantics of the Transitivizer

The transitivizing suffix is of one of three forms, *-aa* used when the object is a noun phrase, and *-i* and *-aini* when the object is a pronoun. The choice between the two suffixes with a pronominal object appears to be lexically based, though there is an element of semantic basis as well. This is based in the distinction between A-verbs and U-verbs, with A-verbs only taking *-aini*.

The semantics of the transitivizer are fairly straightforward. With motion verbs, the function is causative, with the added argument being what the agent causes to move, and is often translated as ‘take’ or ‘bring’, such as in (5b), (17b) and (18b). Note that this is different to Longgu, where the transitivizer with a motion verb makes an applicative (Hill 2011:473-4).

With U-verbs, the function is also causative, with an actor or force as the added argument, such as in (14b), (22b) and (23). Note that the added argument can appear as a subject or an object, as in (22b).

Other types of verbs show transitive or applicative functions, such as in (4b), (12b), (19b) and (24).

- (22) a. *Me tuvuvu-ghu taita ateva ghe soghi=la.*  
 and grandparent-1SG.POSS man SG:I PST be.surprised=PFV  
 ‘And my grandfather was startled.’

- b. *Ngalu ghe soghi-aa=la paka mosu eteva.*  
 1DU.EXCL.SBJ PST be.surprised-TRZ=PFV big pig SG:I  
 ‘We were surprised by a large pig.’

- (23) *Ghe kaa~kavili aliki eteva me kaa~kao-aini-a nau*  
 PST IPFV~wrap youth SG:I and IPFV~bounce-TRZ-3SG.OBJ time  
*ghe ngang~ngala.*  
 PST IPFV~CRY

‘He would coil around the child and make him rock when he was crying.’

- (24) *Karika masau-na arighi paua atoa la=ghe kongo-aa=la mosu eteva.*  
 NEG far=ADJZ CLF:small dog PL 3PL.SBJ=PST bark-TRZ=PFV pig SG:I  
 ‘It was not long before the dogs barked at a pig.’

## 2.3 Causative

### 2.3.1 The Causative Prefix *a-*

The causative prefix *a-* (*e-* after a high vowel) is added to intransitive verbs to create a transitive verb which adds a new participant. This is the reflex of the Proto-Oceanic *\*pa[ka]-*. Ross (1988:321-5) indicates that both *\*p* and *\*k* can appear as null, but the /a/ is short, so it would appear that the *a-* is derived from the *\*pa-* form.

Although Ross (2004:510) indicates that the causative prefix is usually accompanied by the transitivizer *\*-i*, this is not the case in Mussau-Emira, except with verbs ending with /a/, as mentioned above (2.2.2.1).

The verbs in our corpus which occur with the *a-* causative prefix are listed in Table 7. Note that all these verbs are intransitive, as no examples of a causative prefix with a transitive verb have been found.

Verb	Gloss	Causative Verb	Gloss
<i>lutu</i>	happen	<i>a-lutu</i>	make happen
<i>makarrii</i>	be cold	<i>a-makarrii</i>	make cold
<i>manga</i>	be holy	<i>a-manga</i>	make holy, sanctify
<i>masalikkaa</i>	be clear	<i>a-masalikkaa</i>	clear away
<i>masi</i>	be happy	<i>a-masi</i>	please
<i>masina</i>	be good, well	<i>a-masina</i>	heal, make well
<i>matautu</i>	be afraid	<i>a-matautu</i>	scare, make afraid
<i>mate</i>	die	<i>a-mate</i>	kill
<i>mati</i>	be dry	<i>a-mati</i>	make dry
<i>oghi</i>	return	<i>a-oghi</i>	bring back
<i>pallu</i>	shelter under	<i>a-pallu</i>	give shelter
<i>sae</i>	go up	<i>a-sae</i>	make s.t. go up
<i>sio</i>	go down	<i>a-sio</i>	bring down
<i>ssuki</i>	surf, ride (a wave)	<i>a-ssuki</i>	(of a wave) carry along
<i>suu</i>	bathe, dive	<i>a-suu</i>	push underwater, baptise
<i>tingina</i>	stand	<i>a-tingina</i>	stand s.t. up
<i>toka</i>	sit, live	<i>a-toka</i>	place
<i>vukala</i>	hang, drift	<i>a-vukala</i>	hang up, anchor

**Table 7 Verbs with causative**

A causative adds an actor or force argument to the verb, with the other argument becoming an experiencer or patient. In (25) and (27), the intransitive agent becomes a patient in the causative, and in (26), the intransitive experiencer becomes a patient in the causative construction.

(25) a. *A=ghe toka tei=la nenga-ghi.*  
 1SG.SBJ=PST sit with=PFV younger.sibling=1SG.POSS  
 'I sat with my younger brother.'

b. *A=ghe a-toka-i-e=la euu, me a=ghe sae=la*  
 1SG.SBJ=PST CAUS-sit-TRZ-3SG.OBJ=PFV below and 1SG.SBJ=PST go.up=PFV  
*niu eteae.*  
 coconut SG:II  
 'I put him down below, and I climbed the coconut tree.'



- (26) a. *Ami ghe nongo=la va Kaulusi anq=e=mate=la.*  
 1PL.EXCL PST hear=PFV COMP Kaulusi TAM=3SG.SBJ=die=PFV  
 'We heard that Kaulusi had just died.'
- b. *Aloa-na ghe pae~pae poi righi salana tani uvi e-mate-a.*  
 uncle-3SG.POSS PST IPFV~search EMP EXIST way INF strike CAUS-die-3SG.OBJ  
 'His uncle was searching in vain for a way to kill him.'

Note that in (25a), that *tei* is a dialectal variant of *tee*. Note also in (26b), the causative prefix *a-* has been raised to *e-* following the high vowel in the previous word, and the surface form is the same as the third person singular pronominal subject clitic *e=* as in (26a).

- (27) a. *Rema ateva ghe tingina=la epona tale ngaa niu etelange.*  
 knife SG:I PST stand=PFV above PREP frond coconut SG:III  
 'The knife was standing on top of the coconut frond.'
- b. *La=ghe a-tingina-i-e sio=la arova ttulu etiulu*  
 3PL.SBJ=PST CAUS-stand-TRZ-3SG.OBJ go.down=PFV like house.post SG:IV  
*me la=ghe rovia-e=la.*  
 and 3PL.SBJ=PST COVER-3SG.OBJ=PFV  
 'They put him vertically in the hole like a house post and covered him.'

Note that in examples (25b) and (27b), the transitivizing suffix *-i* is added as well as the causative prefix *a-*. This follows the rule of verbs ending with /a/ taking the transitivizing suffix *-i* even when they are already transitive (see section 2.2.2.1).

In (28), the introduced argument is a force rather than an agent.

- (28) a. *Ghe taa~tara ghoa kapu-na atoa, ta la=ghe su~ssuki.*  
 PST IPFV~look go.out friend-3SG.POSS PL APP 3PL.SBJ=PST IPFV~surf  
 'He was looking out at his friends, that they were surfing.'
- b. *Kotoo ateva ghe a-ssuki=la olimo-na arighi.*  
 wave SG:I PST CAUS-surf=PFV canoe-3SG.POSS SG:small  
 'The wave carried his little canoe.'

When a causative prefix is present, and the verb is reduplicated for imperfective aspect, the causative prefix is the element that undergoes reduplication, being lengthened, as shown in (29) and (30).

- (29) a. *A=ghe a-toka-i-e=la euu, me a=ghe sae=la*  
 1SG.SBJ=PST CAUS-sit-TRZ-3SG.OBJ=PFV below and 1SG.SBJ=PST go.up=PFV  
*niu eteae.*  
 coconut SG:II  
 'I put him down below, and I climbed a coconut tree.'

- b. *Llo God e=a~a-toka aitauaa, karika teva taumattu*  
 thing God 3SG.SBJ=IPFV~CAUS-sit together NEG EXIST person  
*e=mene pola.*  
 3SG.SBJ=again divide  
 'What God is causing to be together, let no person divide.' (Matthew 19:6)

- (30) a. *Kateva eta-imim anq=e=a-suu=la verete tee-i-eghi tale*  
 one DAT-2PL.POSS TAM=3SG.SBJ=CAUS-dive=PFV bread with-TRZ-1SG.OBJ PREP  
*pelete ativilau.*  
 plate SG:VI  
 'One of you who has dipped bread with me in the plate.' (Matthew 26:23)

- b. *Ami ghe tiu-aa=la tani tara sso kinatama paka kotoo atoa*  
 1PL.EXCL PST start-TRZ=PFV INF see go.in huge big wave PL  
*la=ghe a~a-suu.*  
 3SG.SBJ=PST IPFV~CAUS-dive  
 'We began to see close to land huge waves breaking.'

### 2.3.2 The Semantics of the Causative

Heeding Dixon's plea for discussion of the semantics of the causative (2012:268), we discuss here his parameters of the causative in Mussau-Emira.

Before looking at the parameters, it is important to note that there is a periphrastic causative construction, using the verb *ghelei* 'do, make'. In some cases, the periphrastic construction has exactly the same effect as would the causative prefix:

- (31) *E=ghe kaai sio=la Tang ateva tani ghelei onosi*  
 3SG.SBJ=PST put.inside go.down=PFV Tang SG:I INF make sweet  
*sola ateva, me ghe ropi=la.*  
 salt.water SG:I and PST drink=PFV  
 'He put Tang in to make the salt water sweet, and he drank.'

Otherwise it can be used as a serial verb construction:

- (32) *Laghe pasila pamkena maotake me laghe gholla, tani*  
*La=ghe pasi=la pamkena maotake me la=ghe gholu=la, tani*  
 3PL.SBJ=PST chop=PFV pumpkin uncooked and 3PL.SBJ=PST eat=PFV INF  
*ghelei velu nami sola ateva ta aloira.*  
*ghelei velu nami sola ateva ta alo-ira.*  
 make drop taste salt.water SG:I PREP throat-3PL.POSS  
 'They chopped up the raw pumpkin and ate it, to take away the taste of salt water from their throats.'

However, it is most often used in conjunction with the causative prefix:

- (33) a. *Ghe lao sio me ghe laa gh=auliaa sio ta a=Jiu*  
 PST go go.down and PST go LIG=tell go.down PREP person.of=Jew  
*etoa va lesu ghe ghelei e-masina-i-e=la.*  
 PL COMP Jesus PST make CAUS-good-TRZ-3SG.OBJ=PFV  
 'He went and went to tell the Jews that Jesus had healed him.' (John 5:15)
- b. *Voto la=ghe tara=la ghe ghelei e-matautu-la=la.*  
 thing 3PL.SBJ=PST see=PFV PST make CAUS-fear-3PL.OBJ=PFV  
 'What they saw made them afraid.'

We now look at Dixon's parameters:

1. **State/Action:** State and action verbs can be made causative. Stative verbs themselves cannot be made into causative, but rather it is verbs which have been made from adjectives (e.g. *makarri* 'cold' or *manga* 'holy') which can then become causative verbs.
2. **Transitivity:** Only intransitive verbs may take the causative prefix.
3. **Control:** The control appears to be that of the causer.
4. **Volition:** Some causative verbs have inanimate objects, where volition is not a factor. Otherwise, there appears to be a range of volitional states, from the causee initiating the action (e.g. *a-suu* 'baptise') to being completely against the wishes of the causee (e.g. *a-mate* 'kill').
5. **Affectedness:** The causee is completely affected by the action.
6. **Directness:** In general, the causation is direct.
7. **Intention:** There are causers that are animate (as in (25b)) and inanimate (as in (28b)), but it seems that causation is intentional when the causer is animate.
8. **Naturalness:** Naturalness does not appear to be a factor, with causes ranging from natural such as *a-ssuki* 'carry along' to those with considerable effort such as *a-sae* 'make s.t. go up'.
9. **Involvement:** Involvement is also not a factor, with some actors involved, such as *a-masi* 'please', and others not involved, such as *a-toka* 'place'.

In the data we have, there is no apparent difference between the causative prefix and the periphrastic causative construction, which seems contrary to expectation. Some verbs occur both with the causative prefix alone and also with the periphrastic construction, with little apparent difference in meaning:

- (34) a. *La=ghe ghelei=la ni-nama~nama atae tani a-masi~masi lesu.*  
 3PL.SBJ=PST make=PFV NMLZ-IPFV~eat SG:II INF CAUS-IPFV~happy Jesus  
 'They made a feast to honour Jesus.' (John 12:2)
- b. *Paelat ghe a~anna tani ghelei e-masi~masi taumattu ng=atoa.*  
 Pilate PST IPFV~want INF make CAUS-IPFV~happy person LIG=PL  
 'Pilate was wanting to please the people.' (Mark 15:15)

In Dixon's typology, we would expect that at least some transitive verbs could be made causative with the periphrastic construction, but we have no data that supports this.

### 3 Decreasing Valence

In common with many Oceanic languages, Mussau-Emira does not have a passive construction (Ross 2004:506), but there are other strategies for decreasing valence. These include reciprocal/collective, reduplication, and a stative construction. Object incorporation (Hill 2011) does not appear to occur in Mussau-Emira, apart from its use in nominalized verbs (Brownie & Brownie 2007:90).

There are also a few transitive verbs which have a passive meaning, so that the experiencer is the topical element, though coded as the object. These include *moi* 'scare', *ssoi* 'satisfy with food', *arropi* 'drown', *sessa* 'make angry', and *ali* 'cause to itch'. For *ssoi*, the subject is the same as the object, in effect, a reflexive. For *moi*, *arropi*, *sessa* and *ali*, the subject is a dummy third person singular.

- (35) *Me a=ghe ainoanna poi ta ghe moi~moi-eqhi.*  
 and 1SG.SBJ=PST breathe EMP for PST IPFV~scare-1SG.OBJ  
 'And I was breathing hard because I was scared.'

- (36) *A=ssoi-eqhi=la.*  
 1SG.SBJ=satisfy-1SG.OBJ=PFV  
 'I am satisfied.' (Or, 'I have eaten my fill.')

- (37) *Amami ghe suu~suu e=lao~lao me e=ghe arropi-eqhi=la.*  
 1PL.EXCL PST IPFV~dive 3SG.SBJ=IPFV~go and 3SG.SBJ=PST drown-1SG.OBJ=PFV  
 'We were swimming and I drowned.'

- (38) *Ami ghe auliaa=la ta kapu-imami etoa oia e=Lomaku, me*  
 1PL.EXCL PST tell=PFV PREP friend-1PL.EXCL.POSS PL this LOC=Lomaku and  
*ghe sessa-i-la=la.*  
 PST make.angry-TRZ-3PL.OBJ=PFV  
 'We told our friends here in Lomaku, and they became angry.'

- (39) *E=ali=la viliki-na me e=kalo-a=la.*  
 3SG.SBJ=cause.itch=PFV skin-3SG.POSS and 3SG.SBJ=scratch-3SG.OBJ=PFV  
 'His skin was itchy and he scratched it.'

Note that *arropi* is translated as 'drown', but does not carry the meaning of the English term, in that it does not necessarily result in death, but rather loss of consciousness while in the water, having breathed in water.

#### 3.1 Reciprocal and Collective

There are two morphemes that are used for reciprocal and collective, a prefix *ai-* (reflex of Proto Oceanic *\*pari-*, Blust 2013:380) and a circumfix *ai- -ii*, which has the allomorph *ai- -i* when the verb ends with */i/*. The prefix is much more commonly used, and the circumfix has a very limited usage in our corpus of texts. The precise meaning of the morphemes is dependent on the context and the specific verb used.

Lichtenberk (1985) describes four uses of reciprocal constructions: reciprocal, chaining, reflexive and collective. Blust (1984:167, 2013:380) refers to reciprocal or collective as his classification of the meaning. His discussion speaks of meanings in Oceanic languages such as ‘collective action’ or ‘united action, rather than mutual action’. However, the usage in Mussau-Emira seems to include all four of the uses defined by Lichtenberk, with the reciprocal being the most common.

### 3.1.1 The Prefix *ai-*

Reciprocals and collectives use the prefix *ai-*. They reduce the valence of the verb either by making the subject and object of the transitive verb the same, with the actors doing the same action to each other, or by the group as a whole performing the action. The meaning in the first case is reciprocal, or mutual action. Verbs that have been observed in our text corpus with the reciprocal/collective prefix *ai-* are listed in Table 8.

Verb	Gloss	Reciprocal Verb	Gloss
<i>bbi</i>	push	<i>ai-bbi</i>	push each other
<i>kape</i>	offload	<i>ai-kape</i>	get off (a boat, car, etc)
<i>kiso</i>	scold, be angry at	<i>ai-kiso</i>	argue
<i>koli</i>	change	<i>ai-koli</i>	take turns, change oneself
<i>kolo</i>	call	<i>ai-kolo</i>	call one another
<i>kune</i>	seize, grab	<i>ai-kune</i>	hold hands
<i>lako</i>	curse, swear at	<i>ai-lako</i>	swear at each other
<i>ppooaa</i>	speak	<i>ai-ppooaa</i>	converse
<i>sausi</i>	help	<i>ai-sausi</i>	help each other
<i>suu-aa</i>	bathe	<i>ai-suu-aa</i>	wash each other
<i>tara</i>	see, look at	<i>ai-tara</i>	greet one another
<i>tiu-aa</i>	divide	<i>ai-tiu-aa</i>	separate
<i>tumari</i>	punch	<i>ai-tumari</i>	punch one another
<i>vukala</i>	hang, anchor, drift	<i>ai-vukala</i>	continue in place

**Table 8 Verbs with reciprocal/collective *ai-***

Some examples follow. In (40), the two sentences are consecutive in the text, and refer to the same event in different ways, with (40a) referring to the people coming to greet him, and (40b) referring to their greeting each other. Note that although *tara* is glossed as ‘see’, in this context the meaning is more broadly ‘greet’. (41) distinguishes between taking hold of something (in this case a snake), and taking hold of each other’s hand, and is an example of chaining. (42) distinguishes between being angry at a particular person and being angry with each other.

- (40) a. *Max ghe tara-i-engalue=la me ghe palu-engalue sso mae*  
 Max PST see-TRZ-1DU.EXCL.OBJ=PFV and PST wave-1DU.EXCL.OBJ go.in come  
*tani ghoa tara-i-g.*  
 INF go.out see-TRZ-3SG.OBJ  
 ‘Max saw us and waved at us to come out and greet him.’
- b. *Angotolu ghe ai-tara=la, me ang ghe laa ghoa tani sae~sae,*  
 1TRI.EXCL.SBJ PST RECP-see=PFV and TAM PST go go.out INF IPFV~go.up  
*me e=lao e=Mosbi.*  
 and 3SG.SBJ=go LOC=Port.Moresby  
 ‘We greeted each other, and he went out to board, and he went to Port Moresby.’
- (41) a. *Me ghe kune-i-e=la, ghe laa sio tani uvi e-mate-a.*  
 and PST seize-TRZ-3SG.OBJ=PFV PST go go.down INF strike CAUS-die-3SG.OBJ  
 ‘And he grabbed it, he went down to kill it.’
- b. *Nau ta ghe rekata=la, la=ghe ai-kune taliaa, me*  
 time PREP PST appear=PFV 3PL=PST RECP-seize round and  
*la=ghe loo~loo sae=la.*  
 3PL.SBJ=PST IPFV~ask go.up=PFV  
 ‘When he arrived, they held hands in a circle, and they prayed.’
- (42) a. *Me tue-ingalua ghe tiu-aa=la tani kiso-i-eghi.*  
 and older.sibling-1DU.POSS PST begin-TRZ=PFV INF be.angy-TRZ-1SG.OBJ  
 ‘And our older sister began to be angry with me.’
- b. *La=ghe ai-kiso tale ilimo ateva.*  
 3PL.SBJ=PST RECP-be.angry PREP canoe SG:I  
 ‘They were arguing in the canoe.’

(43) is unusual in that the subject of the transitive verb is an actor, while the subject of the reciprocal/collective verb is the patient. In (43b), the subject is a collective *taumattu* ‘person, people’ taking a singular verb form. Apparently the group is considered as offloading themselves from the boat. This would be a collective action meaning, hence the gloss as collective.

- (43) a. *Vara Mande elue talaua, me Dokta ghe sae=la tani*  
 then Monday morning and doctor PST go.up=PFV INF  
*kape-angalua tale maketi e=Lae.*  
 drop.off-2DU.EXCL.OBJ PREP market LOC=Lae  
 ‘Then on Monday morning, the Doctor went to drop us off at the market in Lae.’

- b. *Karika a=ghe kila~kila va taumattu ang=ghe ai-kape=la*  
 NEG 1SG.SBJ=PST IPFV~know COMP person TAM=PST COLL-drop.off=PFV  
*me ng=ila ghe mae so~sso nongina angalu ghe toka~toka.*  
 and TAM=3PL PST come IPFV~go.in where 1DU.EXCL.SBJ PST IPFV~sit  
 'I didn't know that the people had got off (the boat) and they were coming to  
 where we were staying.'

It is also possible to add the reciprocal morpheme to an intransitive verb. In this case, the semantics of the verb changes rather than the valence. Instead of referring to the group as a whole, the verb refers to interaction between members of the group. In (44), the intransitive meaning of *koli* is to change, which has a fairly general meaning, while the reciprocal meaning means to take turns, to change responsibility between the participants. In (45), the intransitive meaning of *ppooaa* is 'talk', meaning only one speaker, while the reciprocal meaning is to have a conversation, with more than one speaker.

- (44) a. *Ghe sama~sama me kapu-na atoa la=ghe koli~koli la=ghe*  
 PST IPFV~speak and friend-3SG.POSS PL 3PL.SBJ=PST IPFV~change 3PL.SBJ=PST  
*kitou, la=ghe kirikiri, me la ue ng=itau.*  
 hermit.crab 3PL.SBJ=PST tree.sp and 3PL.SBJ fruit CNST=tree.sp  
 'He would speak and his friends changed, they became hermit crabs, they became  
*kirikiri* trees (*Barringtonia asiatica*), and they became *itau* tree (*Calophyllum*  
*inophyllum*?) fruit.'
- b. *Ngalu ghe ai-koli sio mae tani sau kie-ghi paua*  
 1DU.EXCL.SBJ PST RECP-change go.down come INF carry pet-1SG.POSS dog  
*ateva lomosi ta ngalu ghe rekata=la elo ale.*  
 SG:I until PREP 1DU.EXCL.SBJ PST appear=PFV in house  
 'We took turns carrying my dog until we arrived at the house.'
- (45) a. *Nau kina-ghi ghe ppooaa ng=avalue=la o, a=ghe kasu=la.*  
 time mother-1SG.POSS PST talk LIG=like=PFV that 1SG.SBJ=PST walk=PFV  
 'When my mother spoke like that, I left.'
- b. *Ami ghe ai-ppooaa=la tale ia o elo alai eteva.*  
 1PL.EXCL PST RECP-talk=PFV PREP 3SG that afternoon SG:I  
 'We conversed that afternoon.'

Occasionally, a verb will go through several forms of derivation, such as an intransitive verb taking the transitivizer *-aa* and then adding the reciprocal prefix *ai-*, as in (46), or a transitive verb being reduplicated to become intransitive, then adding the transitivizer *-aa* and then the reciprocal *ai-*, as in (47).

- (46) *Karika masau me ngaata ghe ai-tiu-aa=la.*  
 NEG far and 1PAU.SBJ PST RECP-start-TRZ=PFV  
 'Not much later we separated.'

(47) *Tingina, me u=ghaa velu sele ateva, poli kuukuu eteva*  
stand and 2SG.SBJ=take drop sail SG:I because wind SG:I

*ang=e= ai-koli~koli-aa=la.*

TAM=3SG.SBJ= RECP-DETR~change-TRZ=PFV

‘Get up and take down the sail, because the wind has changed (direction).’

### 3.1.2 The Circumfix *ai- -ii*

The circumfix *ai- -ii* is not used often apart from some fixed expressions. In our corpus of texts, it is only used with three verbs, which are listed in Table 9.

Verb	Gloss	Verb with circumfix	Gloss
<i>kanga</i>	laugh	<i>ai-kanga-ii</i>	laugh among oneself
<i>sou</i>	meet	<i>ai-sou-ii</i>	meet one another (of groups)
<i>uvi</i>	strike	<i>ai-uvi-i</i>	fight

Table 9 Verbs with circumfix *ai- -ii*

Examples of the use of each of these verbs follow. (48) shows the change from one person striking another to the reciprocal, where both parties are striking each other, hence the translation as ‘fight’. (49) shows the intransitive use of *kanga*, the transitive use, and the reciprocal use. The intransitive meaning of *kanga* is to laugh, the transitive meaning is to laugh at someone, while the reciprocal meaning is to laugh amongst the group of participants, which could be taken either as mutual action or collective action. (50) shows an example of two individuals meeting, one where one group comes to meet another, and a third where two groups are both moving and meet, which uses the reciprocal form.

(48) a. *A=ghe matautu=la va tama-ghi e=rau uvi-eqhi.*  
1SG.SBJ=PST fear=PFV COMP father-1SG.POSS 3SG.SBJ=PROH strike-1SG.OBJ  
‘I was afraid that my father would strike me.’

b. *Ngalu ghe ai-uvi-i=la aluse nau.*  
1.DU.EXCLSBJ PST RECP-strike-RECP=PFV long time  
‘We fought for a long time.’

(49) a. *Ghe sessa-i-la=la nau angotolu ghe kang~kanga.*  
PST make.angry-TRZ-3PL.OBJ=PFV time 1TRI.INCL PST IPFV~laugh  
‘It made them angry when we were laughing.’

b. *Taumattu ng=atoa la=ghe kang-aini-e=la.*  
person LIG=PL 3PL=PST laugh-TRZ-3SG.OBJ=PFV  
‘The people laughed at him.’



- c. *Ngatolu ghe tiu-aa=la tani ussu aranna me ngatolu*  
 1TRI.EXCL.SBJ PST start-TRZ=PFV INF suck.juice pandanus and 1TRI.EXCL.SBJ  
*ghe ai-kang~kanga-ii.*  
 PST RECP-IPFV~laugh-RECP  
 'We began to suck on the pandanus fruit and laugh amongst ourselves.'

- (50) a. *A=ghe sou=la paka mirro ateva.*  
 1SG.SBJ=PST meet=PFV big trevally SG:I  
 'I met a large trevally.'

- b. *La=ghe sou-emami=la o, me ami ghe ai-ppooaa=la tale*  
 3PL.SBJ=PST meet-1PL.EXCL.OBJ=PFV that and 1PL.EXCL PST RECP-speak=PFV PREP  
*ia o elo alai eteva.*  
 3SG that afternoon SG:I  
 'They met us there, and we talked that afternoon.'

- c. *Ami ghe ai-sou-ii=la me ila oia taumattu ng=atoa*  
 1PL.EXCL PST RECP-meet-RECP=PFV and 3PL this person LIG=PL  
*sesa -i-e=la.*  
 bad -TRZ-3SG.OBJ=PFV  
 'We met each other and this group of people was bad.'

Note that in (50c) that *sesa* 'bad' is being used as a verb, meaning 'be bad'.

### 3.1.3 Semantics of the Reciprocal

As mentioned in 3.1, Mussau-Emira has evidence of all four of Lichtenberk's uses of the reciprocal construction, with the reciprocal the most common. The circumfix *ai- -ii* has reciprocal and collective uses, while the prefix *ai-* has all four uses.

The reciprocal use is shown in (40b), (42b), (44b), (45b), (48b), and (50c).

The chaining use is rare, and is shown in (41b).

The reflexive use is also uncommon, and is shown in (47).

Notice the use of both reduplication as a detransitivizer as well as the transitivizer *-aa*.

The collective use is a little more common, and is shown in (43b), (49c) and (46).

Note again the presence of the transitivizer *-aa*.

### 3.2 Reduplication

A transitive verb can be used intransitively by reduplicating it. In such a case, the reduplication does not indicate imperfective aspect, but acts as a detransitivizer. As is the case in Proto Oceanic, the A argument of the transitive verb becomes the S argument of the reduplicated verb, and the O argument is omitted (Evans 2003:302). This is seen in the following examples, where the actors looking (51) and eating (52) are the same in both transitive and intransitive clauses. In (53), the actor in the transitive clause is parallel to the force argument in the intransitive clause.

- (51) a. *Nau eteva la=ghe rekata sae=la e=Pou, la=ghe tara=la*  
 time SG:I 3PL.SBJ=PST appear go.up=PFV LOC=Pou 3PL.SBJ=PST see=PFV  
*oro=iili taumattu.*  
 many=EMP person  
 ‘When they arrived at Pou, they saw very many people.’
- b. *Vara lalu ghe taa~tara=la me lalu ghe tara=la*  
 then 3DU.SBJ PST DETR~see=PFV and 3DU.SBJ PST see=PFV  
*urukookoo ng=ateva.*  
 cloud LIG=SG:I  
 ‘Then they looked and they saw a cloud.’
- (52) a. *Lalu ghe nama-i-e=la me lalu ghe masi~masi=eili=la.*  
 3DU.SBJ PST eat-TRZ-3SG.OBJ=PFV and 3DU.SBJ PST IPFV~happy=EMP=PFV  
 ‘They ate it and were very happy.’
- b. *Ami ghe nama~nama=la, me ami ghe ainoanna a-toka=la.*  
 1PL.EXCL PST DETR~eat=PFV and 1PL.EXCL PST rest ADVZ-sit=PFV  
 ‘We ate, and we rested a while.’
- (53) a. *La=ghe kuu=la kura atea.*  
 3PL.SBJ=PST blow=PFV fire SG:II  
 ‘They blew on the fire.’
- b. *Kinatama kuukuu eteva e=ghe tiu-aa=la tani kuu~kuu.*  
 huge wind SG:I 3SG.SBJ=PST start-TRZ=PFV INF DETR~blow  
 ‘A huge wind began to blow.’

### 3.3 Stative

Some transitive verbs which are active or process verbs can take a prefix *ta-*, a reflex of the Proto Oceanic *\*ta-* (Evans 2003:303), to become stative verbs, which reduces the valence. The verbs recorded with the stative prefix *ta-* are listed in Table 10.

Verb	Gloss	Stative Verb	Gloss
<i>kotoo</i>	break	<i>ta-kotoo</i>	be broken
<i>kovo</i>	pull off/out (easily)	<i>ta-kovo</i>	be pulled off/out (easily)
<i>ngore</i>	weaken	<i>ta-ngore</i>	be weak
<i>pakase</i>	injure	<i>ta-pakase</i>	be injured

Verb	Gloss	Stative Verb	Gloss
<i>polaka</i>	break	<i>ta-polaka</i>	be broken
<i>rekata</i>	appear	<i>ta-rekata</i>	be present

**Table 10 Stative verbs**

Some examples of stative verbs follow. In (54a), the verb *polaka* ‘break’ is used in an SVC with a specific verb *sai* ‘cut’ to specify the method of breaking, while in (54b), the method of breaking is not in focus, but the fact that the stone did not break. In (55), the verb *kovo* refers to something that can be removed easily, as bark of a sago palm in (55a), or as coconut fronds in (55b).

- (54) a. *Aue esai polapolaki unna tuku kauru.*  
*Aue e=sai pola~polaka-i une-na tuku kauru.*  
 IRR 3SG.SBJ=cut IPFV~break-TRZ POSS.CLF-3SG.POSS piece bamboo  
 ‘He will split his piece of bamboo.’

- b. *Karika poi atu eteva ghe ta-polaka=la.*  
 NEG EMP stone SG:I PST STAT-break=PFV  
 ‘The stone didn’t break at all.’

- (55) a. *Vara me laghe kovo vella viliki.*  
*vara me la=ghe kovo velu=la viliki*  
 then and 3PL.SBJ=PST pull.off drop=PFV skin  
 ‘Then they pulled off the bark.’

- b. *Ngaa niu eluelange lalu ghe ta-kovo=la.*  
 frond coconut DU:III 3DU.SBJ PST STAT-pull.off=PFV  
 ‘The two coconut fronds came out.’ (Lit. ‘The two coconut fronds became pulled out.’)

The other Proto Oceanic valency-reducing prefix, *\*ma-*, appears to be preserved only in fossilized forms. These are listed in Table 11. Some appear to be related to words in the language, while others come from earlier forms from Proto Oceanic. For example, *saanga* ‘save’ has a derived form *masaanga* ‘safe, clear’, *llaa* ‘daytime’ has a derived form *mallanga* ‘light’, and *ngusu* ‘nose’ has a derived form *mangusuna* ‘to have a runny nose’. Some other forms starting with *ma* seem to have come into Mussau-Emira already having the *\*ma-* prefix, as *matautu* ‘fear’ (from Proto Oceanic *\*matakut*), *mati* ‘be dry, ebb’ (from Proto Oceanic *\*maqati*), *malumina* ‘easy’ (from Proto Oceanic *\*[ma]llumu*) and *mauu* ‘rot, stink’ (from Proto Oceanic *\*[ma]puRut*).

Mussau-Emira form	Gloss	Proto form	Gloss	Source language
<i>masaanga</i>	safe, clear	<i>saanga</i>	save	Mussau-Emira
<i>mallanga</i>	light	<i>llaa</i>	daytime	Mussau-Emira

<sup>5</sup>Reconstructions are taken from Blust & Trussel (2017) and Evans & Ross (2001).

Mussau-Emira form	Gloss	Proto form	Gloss	Source language
<i>mangusuna</i>	have a runny nose	<i>ngusu-na</i>	his nose	Mussau-Emira
<i>malumina</i>	easy	*[ma]lumu	soft, easy	Proto Oceanic
<i>matautu</i>	fear	*matakut	fear	Proto Oceanic
<i>mati</i>	be dry, ebb	*maqati	be low tide	Proto Oceanic
<i>mauu</i>	rot, stink	*[ma]puRut	rot, stink	Proto Oceanic

**Table 11** Forms reflecting *\*ma-*

#### 4 Conclusion

Mussau-Emira has two valences available, intransitive and transitive. There are mechanisms for increasing valence, that is intransitive verbs becoming transitive, and for reducing valence, that is transitive verbs becoming intransitive.

Increasing valence can be achieved by adding one of a number of suffixes to make the verb transitive, or by adding a prefix to make the verb causative.

Decreasing valence is done by adding affixes to make the verb reciprocal or collective, by reduplicating a transitive verb to make it intransitive, or by adding a prefix to make it a stative verb.

There are still some issues that are not completely understood at this point. In particular, the prefix *ai-* appears to have some other functions. Due to historical deletion of consonants present in Proto Oceanic, the form /ai/ is rather overloaded, with the noun *ai* 'tree' (from Proto Malayo-Polynesian \*kahiw or Proto Oceanic \*kayu<sup>6</sup>), the number *ai* 'hundred' (from Proto Oceanic \*ratu(s)?), the verb *ai* 'cook in a mumu' (from Proto Oceanic \*papi), the interjection *ai* 'oh', the prefix *ai-* 'agent, instrument' (from Proto Oceanic \*(k)ani), the prefix *ai-* 'reciprocal, collective' (from Proto Oceanic \*pari) and the circumfix *ai- -ii* 'collective'. There are some other uses which do not fit any of these, such as *kou* 'cover' and *ai-kou* 'cover', showing no distinct change of meaning, or the occasions where *ai-sausi* does not appear to have any difference in meaning to *sausi*, both simply meaning 'help'. It is possible that this may be some form of intensification, but more data is needed.

Further, the periphrastic causative construction may be more widely used, particularly with transitive verbs. More data is needed for this to be checked.

<sup>6</sup>Proto Malayo-Polynesian and Proto Oceanic forms are taken from Blust & Trussel (2017), Greenhill et al. (2008) and Ross (1988).

## Abbreviations

Abbreviations generally follow the Leipzig Glossing Rules. The following abbreviations are used in this paper:

1	=	first person
2	=	second person
3	=	third person
ADJZ	=	adjectivizer
ADVZ	=	adverbializer
APP	=	appositive
CAUS	=	causative
CLF	=	classifier
CNST	=	construct
COLL	=	collective
COMP	=	complementizer
DAT	=	dative
DETR	=	detransitivizer
DU	=	dual
EMP	=	emphasis
EXCL	=	exclusive
EXIST	=	existential
I	=	class I
II	=	class II
III	=	class III
INCL	=	inclusive
INF	=	infinitive
INS	=	instrumental
IPFV	=	imperfective
IRR	=	irrealis
IV	=	class IV
LIG	=	ligature
LOC	=	locative
NEG	=	negation, negative
NMLZ	=	nominalizer/nominalization
OBJ	=	object
PAU	=	paucal
PFV	=	perfective
PL	=	plural
POSS	=	possessive
PREP	=	preposition

PROH	=	prohibitive
PST	=	past
RECP	=	reciprocal
SBJ	=	subject
SG	=	singular
STAT	=	stative
SVC	=	serial verb construction
TAM	=	tense-aspect-mood marker (meaning comes from context)
TRI	=	trial number
TRZ	=	transitivizer
VI	=	class VI

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