

# From Austronesian Voice to Oceanic Transitivity: Äiwoo as the “Missing Link”

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This paper examines three properties of the Reefs-Santa Cruz language Äiwoo that are unusual for an Oceanic language—a distinction between prefixal marking of subjects for intransitive verbs and suffixal marking for transitive verbs, OVA word order in clauses that are morphologically and syntactically transitive, and an ergatively structured verb phrase in OVA clauses—and one that is frequent in Oceanic languages, namely the existence of clauses that appear to be morphologically intransitive but syntactically transitive (so-called “transitive discord” in the terminology of Margetts). I argue that all these properties are straightforwardly explained by the assumption that the Äiwoo system derives from a western Austronesian-style symmetrical voice system where two basic changes have taken place: the loss of the contrast between an actor voice and an undergoer voice, and the accretion of subject pronouns as bound person markers on verbs. Given that Äiwoo is an Oceanic language, this suggests that a voice system must have persisted later into the development of Oceanic than has previously been assumed.

**1. INTRODUCTION.**<sup>1</sup> The Äiwoo language of the Reef Islands has a number of unusual structural features for an Oceanic language, including OVA word order in transitive clauses, a distinction between prefixed subject markers on intransitive verbs and suffixed subject markers on transitive verbs, and a verb phrase structure that appears to be ergative in that it includes the V and the A, but not O or S. This paper argues that the basic properties of Äiwoo clause structure and person marking can be accounted for by the assumption that it fairly transparently reflects an earlier symmetrical voice system with an actor voice and an undergoer voice, where the OVA structure represents the pattern of the original undergoer voice, and the two sets of subject affixes represent the position of the actor argument in the actor voice and the undergoer voice, respectively.

This analysis further explains the odd but characteristically Oceanic feature of having objects that appear at the same time to be both incorporated and arguments of their verb—what Margetts (2008) calls “transitivity discord.” It is argued that, in Äiwoo, this pattern represents an earlier actor-voice pattern where the object NP retained its argu-

1. I would like to thank Bill Foley, Malcolm Ross, and Brenda H. Boerger for helpful comments on earlier versions of this paper; Malcolm Ross, in particular, has spent considerable time discussing the Äiwoo data with me and helping me understand the historical context into which these data fit. None of these helpful colleagues necessarily agrees with all my claims, and any errors or misconceptions are, of course, entirely my own responsibility.

ment status after the voice alternation was lost, leaving a syntactically transitive clause with intransitive morphology.

On this account, *Āirwoo* illustrates a transitional pattern between a western Austronesian-type actor voice/undergoer voice system and an Oceanic-style transitivity-based system. As such, it can provide further insight into the mechanisms of change that produced the latter from the former. Furthermore, such an analysis clearly suggests that a voice system must have been present later in the development of Proto-Oceanic than is usually assumed.

**2. VOICE IN WESTERN AUSTRONESIAN.** Western Austronesian<sup>2</sup> languages are well known in the linguistic literature for their unusual systems of verbal and clausal alternations, and there has been considerable debate about the best way to describe such systems: traditionally they are often referred to as focus systems, though there is increasing agreement that “voice” is a more appropriate label. The term “symmetrical voice” is often used to refer to such systems, reflecting the fact that there is no clear “basic” form from which the other voices are derived, no formal demotion of the actor argument in the undergoer voice(s), and usually overt morphological marking of all voices.

Two basic subtypes can be distinguished within this overall pattern. “Philippine-type” languages have an actor voice, where the actor is subject, and a set of undergoer voices that allow noun phrases with a variety of semantic roles such as patient, location, instrument, and so on to become subject (Arka and Ross 2005:7). Some accounts assume that there is one basic undergoer voice from which the others are derived by affixes with applicative-like functions (Ross 2002a:21). In at least some Philippine-type languages, the actor voice appears to be formally intransitive, while the undergoer voices are formally transitive (Arka and Ross 2005:9). A Philippine-type pattern is reconstructed for Proto-Austronesian and Proto-Malayo-Polynesian (Lynch, Ross, and Crowley 2002:59, Ross 2002a, 2012).

“Indonesian-type” languages, by contrast, have an actor voice and an undergoer voice, with further derivational affixes applying to both voices. Ross (2002b:457–58) notes that many, though not all, Indonesian-type languages are “symmetrical” in two further senses beyond the symmetrical pattern of morphological voice marking: both the actor voice and the object voice are syntactically transitive, and the two voices have mirror-image structures, with the nonpivot core argument (that is, the argument not picked out by the voice marking) immediately following the verb and forming a constituent with it. This pattern can be illustrated by example (1) from Balinese, which is an Indonesian-type language with an actor voice and an undergoer voice; note that the undergoer voice in this language is morphologically unmarked. Wechsler and Arka (1998) show that in Balinese, the preverbal argument (that is, the one picked out by the voice marking) is the pivot (that is, the privileged argument for the purposes of constructions such as relativization, raising, and control), while the verb forms a constituent with the nonpivot argument.

2. “Western Austronesian” is a geographically rather than genealogically defined term. Himmelmann (2002) takes it to include the Austronesian languages of Taiwan, the Philippines, mainland Southeast Asia, western Indonesia, Borneo, and Madagascar, as well as Palauan and Chamorro. For the present purposes, the essential point is that it excludes the Oceanic subgroup.

- (1) BALINESE<sup>3</sup>
- a. Tiang [numbas bawi-ne punika].  
 I AV-buy pig-DEF that  
 ‘I bought the pig’ (Actor Voice)
- b. Bawi-ne punika [tumbas tiang].  
 pig-DEF that OV.buy I  
 ‘I bought the pig’ (Object Voice) (Wechsler and Arka 1998:388)

However, the property of having the postverbal argument of a transitive construction form a constituent with the verb does not appear to be unusual in Philippine-type languages either (Himmelman 2005:143).

Oceanic languages are not generally analyzed as showing comparable voice alternations, though Wolff (1980) argues that the system of “transitive suffixes” found in many Oceanic languages (Wolff’s examples are Arosi and Fijian) are in effect “goal focus” forms of the verb, that is, equivalent to undergoer voices in Philippine-type languages. The generally accepted view, however, is that the symmetrical voice system inherited from Proto-Malayo-Polynesian (PMP) had been lost by the time of Proto-Oceanic (POC), the voice morphology having developed into transitivity-marking morphology (Pawley and Reid 2011 [1979], Evans 2003, Ross 2012). The remainder of this paper will discuss an Oceanic language whose patterns of clause structure and argument marking, while clearly based on transitivity rather than voice alternations, are transparently derived from a voice-marking system similar to that found in present-day Balinese. This raises the question of how late into the development of Proto-Oceanic the voice-marking system was retained.

**3. THE ÄIWOOL LANGUAGE.** Äiwoo is an Oceanic language of the Temotu subgroup (Ross and Næss 2007). This recently identified first-order subgroup of Oceanic consists of a small group of languages spoken in Temotu Province, the easternmost province of Solomon Islands; the area is also known as the Santa Cruz Archipelago. Two or three lower-order subgroups within Temotu can be identified; Äiwoo belongs to the Reefs-Santa Cruz group, whose other members are the Santa Cruz languages Natügu, Nalögo, and Engdewu (Nagu/Nanggu). The remaining Temotu languages are Teanu, Tanema, and Lovono of Vanikoro Island, and Aba, Asuboa, and Tanibili of Utupua Island; Ross and Næss (2007) assign these to a single “Utupua-Vanikoro” subgroup, whereas François (2009) argues for two distinct subgroups, Utupua and Vanikoro. As this paper will not be further concerned with the languages of Utupua and Vanikoro, this question is of little relevance in the present context.

The Temotu subgroup has no members outside Temotu Province, and this, in combination with archaeological evidence showing some of the earliest known Lapita settlements outside the presumed Proto-Oceanic homeland in the Bismarck Archipelago (Spriggs 1997, Shepard and Walter 2006), suggests that the ancestor of the Temotu languages broke off directly from Proto-Oceanic in a very early population movement out of the Bismarcks, and that the

3. Nonstandard abbreviations used in glosses are: AUG, augmented number; AV, actor voice; BN, bound noun; COLL, collective; CS, change of state; DEIC, deictic clitic; DIR, directional; DIST, distal; MIN, minimal number; OV, object voice; PROX, proximal; UA, unit-augmented number; VPL, verbal plural.

population has essentially remained in situ ever since. Consequently, information about these poorly described languages may provide an important contribution to our understanding of the properties of Proto-Oceanic.

Äiwoo has around seven to eight thousand speakers, most of whom are located in the Reef Islands, some 70 kilometers to the northeast of Santa Cruz. There is some evidence that the speakers were historically bilingual in Vaeakau-Taumako, the Polynesian Outlier spoken in the Outer Reef Islands as well as in the Duff Islands (Taumako) to the north (Naess and Jenny 2011). Today, while many Äiwoo speakers still claim some knowledge of Vaeakau-Taumako, intergroup communication generally takes place in Solomon Islands Pijin.

The data on which this paper builds come mainly from the author's work with native speakers in Honiara and the Reef Islands during a total of around five months in 2004–2005. In addition, a significant amount of data in the form of narrative texts recorded and transcribed by native speakers are held in the archives of the Australian National University, as part of the collections of the late Stephen Wurm. I have accessed these data, though I have not yet carried out a full analysis. Some data also come from the translation of the Gospel of Mark published in 2003. Examples taken from this source are labeled with "Mark" plus the relevant chapter and verse; unlabeled examples come from fieldwork data.

## 4. BASIC CLAUSE STRUCTURES IN ÄIWOO

**4.1 ISSUES OF TERMINOLOGY.** Given the structural properties to be discussed below, the use of the term "subject" (and, to some extent, "object") is somewhat problematic for Äiwoo. There is no unitary marking of "subjects" across clause types, and there are two types of two-participant clauses with distinct formal properties.

The use of the established terms S, for the single argument of intransitive clauses, A, for the agentive argument of transitive clauses, and O, for the second argument of transitive clauses, only partly solves the problem. As will be described in detail in 4.4 below, Äiwoo has a clause type that has two arguments from a syntactic point of view—which accordingly should be labeled A and O—but where the A is morphologically encoded on the verb in the same way as the S of intransitive clauses rather than the A of the other type of two-argument clause described in 4.3. Explaining how this situation has come about is one of the main purposes of this paper; but providing a diachronic explanation does not solve the synchronic problem of terminology.

I will use the terms A and O for the arguments of both types of two-participant clause in Äiwoo, and S for the single argument of one-participant clauses. However, for the affixal person markers I will use the gloss A for the suffixes marking the A argument of OVA-type clauses (4.3) and S for the prefixes marking both the S argument of intransitive clauses and the A argument of AVO clauses. There are two reasons for this choice. The first is simple convenience and simplicity, as it allows for a simple way of glossing the difference in function between the two markers. It should be kept in mind, however, that the gloss S for the person prefixes is in this sense a simplification. The second and more important reason is to highlight the parallel between the apparent mismatch found in Äiwoo AVO clauses between morphologically "intransitive" marking and syntactic

transitivity as manifested through the presence of two argument NPs, and similar situations described for other Oceanic languages (cf. Margetts 2008 and the discussion in 4.4 and section 5 below). The fact that such a mismatch exists is an essential point of this paper; the terminology is chosen to highlight this.

Finally, I will sometimes make use of the label “subject” as a convenient cover term for S and A arguments. It should be noted, however, that given the morphological facts just outlined and the fact, discussed in 4.3, that Äiwoo lacks a syntactic pivot, there is little formal evidence for a coherent “subject” category in Äiwoo.

**4.2 INTRANSITIVE CLAUSES.** The word order of intransitive clauses is overwhelmingly SV, when an independent subject NP is present:

- (2) Temaale lâ ku-basiki=to=wâ.  
 needlefish DEIC.DIST IPFV-run=CS=DEIC.DIST  
 ‘The needlefish ran off.’

The person and number of the S argument of an intransitive verb is indicated by a prefix on the verb, as shown in table 1;<sup>4</sup> 3rd person minimal is unmarked. With one exception, these prefixes precede the aspect/mood prefixes *ki-/ku-* ‘imperfective’, *i-* ‘perfective’, and *nA-* ‘irrealis’;<sup>5</sup> which are normally obligatory on dynamic (as opposed to stative) verbs. The exception is the 3AUG prefix *li-/lu-*, which follows the aspect-mood prefixes. Ross and Næss (2007:479) suggest that this prefix, being closer to the stem than the other members of the paradigm, is the only surviving member of an older set of person-marking prefixes, and that the other prefixes are later innovations; cf. section 5 below. Examples:

- (3) a. I-ki-meï b. Ji-ki-meï  
 1MIN.S-IPFV-sleep 1+2MIN.S-IPFV-sleep  
 ‘I sleep’ ‘You and I sleep’  
 c. Ki-meï d. Ki-li-meï  
 IPFV-sleep IPFV-3AUG.S-sleep  
 ‘S/he sleeps’ ‘They sleep’

TABLE 1. ÄIWOO INTRANSITIVE SUBJECT PREFIXES

	MINIMAL	AUGMENTED
1st	i-	me-
1st+2nd	ji-	de-
2nd	mu-/mi-	mi-
3rd	∅	li-/lu-

4. Äiwoo person marking is organized according to a so-called minimal-augmented system, where ‘you and I’ (‘1st + 2nd’ person) functions as a distinct person category. It patterns like the other persons in that it can be “pluralized,” but since its “singular” form refers to two people, the terms “minimal” and “augmented” are used instead of “singular” and “plural” for such systems. The “unit-augmented” number refers to minimal number plus one: that is, two people for the 1st, 2nd, and 3rd persons, but three for the 1st+2nd person ‘you and I plus one’. Person affixes on verbs do not show a distinct unit-augmented form in Äiwoo; instead, a suffix *-le* is added to the augmented form of the verb.
5. The symbol *A* is used to represent an underspecified vowel that surfaces as [æ] or [a] depending on properties of the following vowel. The orthography represents [æ] by *ä* and [a] by *ä*; these are also distinct vowel phonemes.

**4.3 OVA CLAUSES.** What have in previous publications been called “transitive clauses” will here be labeled “OVA clauses,” so as to avoid drawing premature conclusions about their formal status and their relationship to the other type of two-participant clause that will be discussed in 4.4 below. OVA clauses are characterized by three formal properties:

- (a) When the O argument is a lexical noun, its default position is preceding the verb, as the label suggests.
- (b) A arguments of OVA clauses are marked by suffixes on the verb, as shown in table 2. In addition, there are suffixes for O arguments of certain persons and numbers, while for those person-number combinations for which no suffix exists, the O may be indicated by an independent pronoun that follows the verb.
- (c) The morphological form of the verb is distinct from that found in the other type of two-participant clause to be discussed below. These differences will be discussed further in 4.4.

The OVA word order is assumed to be basic for a number of reasons. First, examples of clauses of this type out of context consistently show OVA order. This includes native-speaker translations of English transitive clauses, which are consistently given with OVA order, and also the headings in the Gospel of Mark that introduce a new episode or section of text: “John baptizes Jesus,” “Jesus heals a sick man,” and so on. Since these relate strictly to the content of the paragraph that they head, they effectively constitute independent bits of discourse with no direct links to the immediately preceding text; for this reason they also tend to contain full NP arguments. Examples are given in (4):

- (4) a. Jises i-wuuli-kä Jon.  
 Jesus PFV-baptize-DIR.3 John  
 ‘John baptizes Jesus.’ (Mark, heading)
- b. Sime nuobu vili i-wâ-pu-nâ-gu-i Jises.  
 person thousand five PFV-CAUS-eat-TR-3MIN.A-3AUG.O Jesus  
 ‘Jesus feeds five thousand people.’ (Mark, heading)

Second, OVA order is clearly predominant in narrative texts, and while other orders are certainly possible, they are pragmatically marked. Postverbal nominal Os are generally interpreted as contrastive, as in (5):<sup>6</sup>

**TABLE 2. ÄIWOO TRANSITIVE SUBJECT SUFFIXES**

	MINIMAL	AUGMENTED
1st	-no/-nee*	-ngo(pu)
1st+2nd	-ji	-de
2nd	-mu	-mi
3rd	-∅/-gu†	-i

\* The form *-nee* is found preceding a 2MIN object suffix.

† The form *-gu* is used when the object is non-3MIN.

6. Example (5b) is a response to a video clip (Hellwig and Lüpke 2001).

- (5) a. ... go nâ-wâ-i-lâ-usi-kâ Paelat=kâ Barabâs,  
 CONJ IRR-CAUS-PFV-go.out-again-DIR.3 Pilate=DEIC.DIST Barabbas  
 mo Jises=kâ ba.  
 CONJ Jesus=DEIC.DIST NEG  
 ‘(... so that they would ask) for Pilate to release Barabbas, and not Jesus.’  
 (Mark 15:11)
- b. Teenu eââ lenge ki-baa=to, mo le i-vitee=nâ  
 bottle DEM.DIST now IPFV-not.be=CS CONJ DEIC.PROX PFV-put.up=DEIC.DIST  
**bolo nyigi.**  
 ball one  
 ‘Now the bottle is gone, but now she put a ball up there (as opposed to the bottle that was there in a previous clip)’.

Heavy object noun phrases, such as nominalizations and NPs containing relative clauses, also tend to be postverbal, as is often the case cross-linguistically (Hawkins 1983).

An important feature of OVA clauses is that the verb and its following A argument seem to behave as a structural unit (Næss 2012a). This can be seen from the distribution of a number of enclitics with different functions: the future clitic =*Caa*, the negation clitic =*gu*, and the aspect clitics =*to* ‘change of state’ and =*jo* ‘progressive’. All these clitics attach to the verb directly if it is intransitive or transitive followed by an O NP, but follow the postverbal A NP of a transitive verb. In contrast, the clitics do not attach to a postverbal S argument of an intransitive clause; in intransitive clauses, the clitics attach directly to the verb even if there is a postverbal S NP. This is illustrated for the aspect clitics in (6) and for the future clitic in (7); the a. examples show that the clitics follow a postverbal A argument, while the b. and c. examples show that, with postverbal O and S arguments, the clitics attach directly to the verb. In other words, the clitics treat V and A as a unit, but not V and S or V and O—an ergative pattern.

- (6) a. Ki-vâäpo-kâ tumwâ=**jo=wâ**.  
 IPFV-ask-DIR.3 father.3MIN=PROG=DEIC.DIST  
 ‘Her father asked her.’
- b. Ku-wo-bii=**jo=wâ** nuwotaa.  
 IPFV-go-follow=PROG=DEIC.DIST head.3MIN  
 ‘He would follow his own mind.’
- c. Wâ=nâ lâ botou-woli=**to=wâ** nyibengä  
 go=DEIC.DIST DEIC.DIST pour-go.down=CS=DEIC.DIST huge  
 teuwâ mi-lâdo.  
 rain BN.GEN-nasty  
 ‘Then a horrendous rain started pouring down.’
- (7) a. I-luwa-kâ tumwâ=**naa**.  
 PFV-take-DIR.3 father.3MIN=FUT  
 ‘Her father would take it.’
- b. Inâ ku-pu-kâ=**naa** ki-amoli-kâ=**naa=kâ**  
 3MIN.DIST IPFV-go-DIR.3=FUT IPFV-see-DIR.3=FUT=DEIC.DIST  
 talâu na.  
 meal POSS.FOOD.3MIN  
 ‘He would come and find his food there.’

- c. Bââ=**kaa** de-nâ-potaa-mu.  
 not.be=FUT BN.thing-IRR-search-2MIN.A  
 ‘You will not lack anything.’ (lit., ‘Things you look for will not exist.’)

This ergative verb phrase structure is all the more unusual for not being matched by an S/O pivot. The arguments for Äiwoo lacking a pivot are laid out in more detail in Næss (2012a, submitted). Briefly, the language relies largely on anaphoric coreference in multi-clausal constructions; relative clauses can be formed on any argument; question words are not extracted; and to the extent that the language has something resembling floating quantifiers, these can be launched by any argument. The lack of a pivot is, in fact, to be expected for a language that marks core arguments directly on the verb, as they tend to rely on other strategies for cross-clausal coreference (Dixon 1994:145, Falk 2006:88); Ross (2004:533) notes that Oceanic languages in general tend to lack pivots, and links this to the appearance of subject marking in the verb complex.

For Äiwoo, the lack of a pivot means that the verb phrase-external position of S and O as opposed to A in OVA clauses has no further ramifications for syntax. Falk (2006:97) links external structural position to pivothood, and suggests that it iconically reflects the function of pivots as “clause-internal topics”; however, as Äiwoo lacks pivots, there seems to be no obvious functional explanation for the ergative structure of the verb phrase in this language. Instead, as I will propose below, the explanation is historical: the ergative verb phrase is a remnant of an undergoer-voice pattern similar to that illustrated for Balinese in (1b).

**4.4 AVO CLAUSES.** AVO clauses show, as the label suggests, AVO word order. In this construction, the verb takes prefixes indicating the person and number of the A argument, patterning like intransitive verbs; the pattern has previously been described (Ross and Næss 2007, Næss and Boerger 2008, Næss 2012b) as “semi-transitive.”

- (8) Pe-sime-engâ            li-epave=to    sii=kâ.  
 BN.COLL-person-DEM.DIST    3AUG.S-cook=CS    fish=DEIC.DIST  
 ‘The people cooked fish.’

Similar constructions in other Oceanic languages have typically been described in terms of object incorporation, and (8) might plausibly be analyzed in this way, that is, as describing an act of “fish-cooking” rather than the cooking of any particular fish. However, although O arguments in Äiwoo AVO clauses are frequently generic or nonreferential, they need not be so, as the examples in (9) show. Rather, the construction appears to convey an emphasis on the action carried out as opposed to its object or result. A number of examples of this are found in data elicited through the use of film clips, where the speaker is asked to “describe what happens,” a context typically giving an “event-focused” rather than an “object-focused” description:<sup>7</sup>

7. The examples were elicited by means of the “Staged Events” (van Staden et al. 2001) and “Caused Positions” (Hellwig and Lüpke 2001), film-clip sets developed by the Language and Cognition group at the Max Planck Institute for Psycholinguistics, Nijmegen.



- (9) a. I-te-kâ-no=ngâ totokale eâ dâ=gi-laki=dâ  
 PFV-see-DIR.3-1MIN.A=DEIC.DIST picture of some=BN.male-small=some  
 ki-lää-kâ apple na-na ibete.  
 IPFV-give-DIR.3 apple IRR-POSS.FOOD.3MIN friend.3MIN  
 ‘I saw a picture of a boy giving an apple to his friend.’
- b. Ki-li-e-tokoli-le ki-li-epaave-le de-na-i-le.  
 IPFV-3AUG.S-VPL-sit-UA IPFV-3AUG.S-cook-UA BN.thing-POSS.FOOD-3AUG-UA  
 ‘They are sitting and cooking their food.’
- c. Dâ=sime i-wâ-kou-to nuwa nyenaa ngâ box.  
 some=person PFV-CAUS-lie-go.in fruit tree in box  
 ‘A person put a fruit into the box.’

Margetts (2008) argues that the so-called “incorporated” objects in Oceanic languages are, in fact, arguments of their clauses, and suggests that what characterizes such constructions is what she calls “transitivity discord”—a mismatch between morphological features that mark the verb as intransitive, and syntactic features that indicate that the clause is transitive.

There is considerable evidence that the object nouns of Äiwoo AVO clauses are, indeed, arguments rather than being incorporated into the verb. They can be modified in various ways, including being possessive-marked, as in (10a), and taking relative clauses (10b). They pattern like the objects of OVA clauses in that they follow the clitics described in 4.3; if they were incorporated into the verb or verb phrase, they would be expected to precede them (11); note that the relevant clitic in (11b) is the aspect clitic =to, not the deictic clitic, which has a different and rather complex distribution.

- (10) a. Ku-ponge-to-kâ sii mi-laki kâ=nâ nâ-ngâ.  
 IPFV-chase-go.in-DIR.3 fish BN.GEN-small say=APPL IRR-eat  
 ‘(The big fish) was chasing small fish for it to eat.’
- b. I-ki-äkäle sime nâ-pole-mâ ngâgu.  
 1MIN.S-IPFV-ask person IRR-work-DIR.1 to.1MIN  
 ‘I ask for some people to work for me/who will work for me.’
- (11) a. Mi-ki-lää-kâ=**naa** de-nâ-ngâ-i=lâ imi.  
 2AUG.S-IPFV-give-DIR.3=FUT BN.thing-IRR-eat-3AUG.A=APPL 2AUG  
 ‘You must give them food.’ (Mark 6: 37)
- b. Me-ku-nu=**to** nenu=kâ.  
 1AUG.S-IPFV-drink=CS coconut=DEIC.DIST  
 ‘We drank coconuts.’

AVO clauses, then, appear to be transitive from a syntactic point of view, in that they have two syntactic arguments, an A and an O; but from a morphological point of view, they seem to be intransitive, as their person marking matches that of the intransitive clauses described in 4.2 and is distinct from that found in the OVA clauses described in 4.3.

**4.5 MORPHOLOGICAL DIFFERENCES BETWEEN VERBS IN OVA AND AVO CLAUSES.** The verbs that occur in Äiwoo OVA clauses are formally distinct from those occurring in AVO clauses. Unlike many Oceanic languages that mark transitive verbs with a suffix *-i* or something similar, Äiwoo shows no clear derivational

relationship between the verbs in OVA and AVO clauses. Nevertheless, there are a number of recurring patterns, several of which suggest a link to an earlier voice-marking system. These are illustrated in table 3.

Patterns 1a–c are all variants on a pattern where a final *-i* in the OVA form alternates with either zero or another vowel (or diphthong) in the AVO form. These all presumably reflect an original transitive *\*-i*, as suggested in Ross and Næss (2007:481), and as is well attested for other Oceanic languages. The reconstructed POC *\*-i* in turn derived from a merger between the PMP locative voice and goal voice markers into a single object voice; the object voice marker was then reanalyzed as a marker of transitivity (Pawley and Reid 2011 [1979]; Lynch, Ross, and Crowley 2002; Ross 2012).

It may be noted that POC *\*-i* is thought to have occurred only following consonant-final and *\*a*-final verb stems, whereas no overt suffix appeared on stems of other phonological forms (Evans 2003:106, 303). It is, therefore, not surprising that only a subset of verb pairs in Äiwoo reflect *\*-i*.

Pattern 1a has by far the highest type frequency in my material, with 1b and 1c being relatively minor variants. Also highly frequent is pattern 2, which appears to have some degree of productivity: the intransitive verb *bou* ‘be afraid’ has a causative form *wâbou* ‘taboo, holy’ (lit., ‘cause to be afraid’); but there is also a form *wâbu* ‘frighten’, which occurs in OVA clauses and which appears to be constructed on analogy with the *-ou/-u* alternation shown by many pairs of AVO/OVA verbs.

Patterns 3–5 have low type frequency, with two to four pairs attested for each, but a relatively high token frequency. Note that *-lowe/-lu* is, in fact, a bound root that occurs in combination with other initial elements besides *ta-* ‘cut with a knife’, for example, *vâlowe* – *vîlu* ‘cut (e.g., grass) with a long instrument’ (Næss and Boerger 2008, Næss 2012b).

Patterns 2–4 have in common that the AVO form is longer than the OVA form. Furthermore, the AVO form in all of them may be taken to involve a sequence *-ow-* or *-âw-*, on the reasonable assumption that pattern 3 arises from an original *C-ow-u* being reduced to *Cou*, a process that would certainly be in line with typical patterns of Äiwoo morphophonemics.

The position of this *-ow-/-âw-* element is suggestive of an infix. The actor voice is typically marked by an infix *in* in at least some Austronesian symmetrical voice languages: for PMP, the infix *\*<um>*, following the initial consonant of the stem, has been reconstructed in the perfective aspect. Though *-ow-/-âw-* in Äiwoo follows the stem-initial phoneme in many of these examples, it does not always do so. However, a high proportion of nominal and verbal stems in Äiwoo are, at least diachronically, compounds (see the observation on

TABLE 3. COMMON PATTERNS OF VERB ALTERNATIONS IN AVO AND OVA CLAUSES

PATTERN NO.	AVO FORM	OVA FORM	EXAMPLES
1. a.	-e	-i	benge – bengi ‘block’, läve – lävi ‘fish with a net’
b.	-ei/-oi	-i	ei – ii ‘peel’, gei – gi ‘shave’
c.	∅	-i	eta – etai ‘fish with a line’, lotälâ – lotälâi ‘prepare’
2.	-ou	-u	tou – tu ‘carry, bring’, gou – gu ‘husk’
3.	-âwââ	-ââ	dâwââ – dââ ‘tie up’, eâwââ – eââ ‘pull’
4.	-lowe	-lu	tâlowe – tâlu ‘cut long flexible object’, ealowe – ealû ‘tickle’
5.	-ei	-(i)li	kei – kili ‘dig’, vei – vili ‘weave’, lei – li ‘grate’

*-lowe/-lu* above; a similar case can be made, for example, for the pattern 2 pair *nukou* – *nuku* ‘pick’, where the initial *mu-* is a bound root with the meaning ‘pinch between the fingers’). In such compound forms, we find the *-ow/-âw-* sequence following the initial phoneme of the second root.

It is tempting to assume a link between these Äiwoo forms and the PMP actor-voice infix; it may be noted that there are other Austronesian languages, like Palauan, where the original *-m* of the infix has changed to *-w* (Lemaréchal 2010:15). If the *-ow/-âw-* forms found in AVO clauses reflect the actor-voice infix, this would explain why the AVO verb forms are longer than the OVA forms in these cases, as we are assuming that the AVO pattern reflects an original actor voice construction.

A potential problem for such an analysis is that PMP \**<um>* was an independent actor-voice morpheme, whereas the forms generally reflected in Oceanic languages were dependent verb forms (Ross 2012, pers. comm.). As far as I have been able to establish, the apparent infix occurs only in the verbs found in AVO clauses, whereas intransitive forms are stem-only (for example, *mei* ‘sleep’, *mele* ‘fly’, *wä* ‘go’). A possible exception was noted above, namely *bou* ‘be afraid’; it is likely, however, that this is an accidental similarity and that, as suggested above, the alternation *wâbou* ‘be holy’ ~ *wâbu* ‘frighten’ is formed on analogy with a highly frequent pattern; note that it only occurs when the verb takes a causative prefix. I suggest, then, that the reflexes of independent-form \**<um>* in some AVO verbs are a conservative remnant, lost everywhere else in the language;<sup>8</sup> cf. section 6 below.

Pattern 5 looks superficially similar to what Zobel (2002) suggests for Palauan, which has a transitive past-tense infix *<i/>* (indicative) and *<(i)/>* (subjunctive). Zobel (2002: 19) analyzes the indicative form as reflecting the PMP actor-focus infix \**<umin>* and the subjunctive as reflecting the undergoer-focus infix \**<in>*, exemplified by the pair *kilis* ‘dig (definite object)’ vs. *kios* ‘dig (indefinite object)’.

The Äiwoo pattern shows a low type frequency but a fairly high token frequency; the three verbs listed in table 3 are my only well-established examples. If *vei* ‘weave, plait’ reflects POC \**pai* ‘weave’ (Osmond and Ross 1998:82), then a development similar to that suggested for Palauan may be plausible for the pair *vei* – *vili*. For ‘dig’, however, the OVA form *kili* presumably reflects POC \**keli* (Osmond 1998:123, Malcolm Ross pers. comm.), and so in this case the problem is rather one of accounting for how the *-l-* got lost in the AVO form. The same may be the case for the ‘grate’ forms, with *li* possibly reflecting POC \**kiri* ‘file, rasp, saw’ (Osmond and Ross 1998: 95). It is difficult to satisfactorily account for this pattern, in other words, and any link with earlier voice morphology is extremely tenuous.

There are other, minor patterns in the data, but the ones discussed above account for the majority of alternations found in my material. Most of these seem clearly to have their origins in earlier voice morphology, distributed according to the expected pattern: actor-voice markers for AVO forms, undergoer-voice markers for OVA forms. The *ei* ~ *(i)li* pattern is the obvious exception and may not have a single historical origin; analogical extension of the pattern from one or two original pairs may well have been involved.

8. I thank Malcolm Ross for pointing out this issue and its possible explanation.

**4.6 THE STATUS OF PERSON AFFIXES.** In general, there are two possible analyses of person markers on a verb: they could be agreement markers (that is, obligatorily present in agreement with an independent argument noun phrase); or they could have an argument function, meaning that the affixes have status as arguments, and any apparent argument noun phrases coreferential with the affixes must be understood as being in apposition rather than functioning as clausal arguments.

In Äiwoo, it appears that, in principle, either person affixes or independent noun phrases may function as arguments. This is shown by the fact that, if an overt noun phrase referring to a subject participant is present, the corresponding subject affix on the verb may be left out:

- (12) a. ... go ku-mo ngâ numã=ke iumu.  
           because IPFV-stay LOC village=DEIC.PROX 2MIN  
           ‘... because you (are the one who) stay(s) at home.’
- b. Dee sii=ee ku-wâ-nubo=kâ iu.  
           this fish=DEM.PROX IPFV-CAUS-die=DEIC.DIST 1MIN  
           ‘I (was the one who) killed this fish.’

The largely complementary distribution between person affixes and independent argument noun phrases indicates that an argument position may be filled by either a person affix or an independent noun phrase. The affixes are clearly not agreement markers, as they are usually omitted when an overt noun phrase with which they might “agree” is present; the alternative analysis is that they function as arguments. It is possible for an affix and a coreferential noun phrase to cooccur, as in (11a) above; in such cases, the affix is most plausibly analyzed as the argument, and the noun phrase as an apposition, given that the affixes, when they occur, appear to fill an argument position. In the case of (11a), the independent pronoun is contrastive: the reading is “**you** must give them food (rather than expect them to find it somewhere else).”

**5. ÄIWOO AND AUSTRONESIAN VOICE SYSTEMS.** While the patterns described above clearly do not constitute a voice-marking system, they can be straightforwardly explained as deriving from a voice-marking system showing an alternation between an actor voice and an undergoer voice, similar in its basic properties to that illustrated for Balinese in (1) above.<sup>9</sup> Two simple steps separate the Äiwoo clause patterns from such a system: the accretion of subject pronouns as bound argument markers on the verb, and the loss of the voice contrast.

First, the unusual pattern of subject marking on verbs, with a distinction between intransitive subject prefixes and transitive subject suffixes, can be understood as reflecting the position of the actor NP in the original voice system: the actor argument would have been preverbal in the actor voice, but postverbal in the undergoer voice. The fact that the subject affixes function as arguments (4.6) supports the analysis that they are basically

9. Balinese is here used as an illustrative example of a language showing the essential properties of the type of system from which I assume the Äiwoo patterns must be derived. It is chosen mainly because detailed descriptions of its voice system and syntactic properties are available. This should not be taken to imply that I am inferring a close historical connection specifically between Balinese and Äiwoo. Indeed, there are some crucial differences between Balinese and Äiwoo, to which I will return below.

subject pronouns that have become bound to the verb. Ross and Næss (2007:479) note that “there has always been a tendency [in Oceanic] to innovate new subject prefixes from reduced forms of the free pronouns, and [1MIN.S] *i-* may reflect a reduced form of POC \**iau*.” The fact that the subject suffixes on OVA verbs reflect POC possessive pronouns (Ross and Næss 2007:479) is expected if this structure reflects an original undergoer-voice construction, as actors of such constructions in other Austronesian languages are typically indicated by genitive forms (Himmelman 2005:149).

In the next stage of development, the loss of the voice distinction would have meant that the difference between subject prefixes and subject suffixes became associated with the difference between intransitive and transitive verbs rather than with actor voice vs. undergoer voice.

From this perspective, the origin of the Äiwoo AVO clause pattern is not an intransitive clause with an incorporated object noun, but a two-argument actor-voice pattern in which the subject preceded the verb and the object followed it. Note that the AVO pattern is found in clauses focusing on the performing of an action rather than its effect on an object, a function plausibly reflecting an original actor voice construction.

This straightforwardly explains the pattern of “transitivity discord” whereby clauses appear to be morphologically intransitive, but syntactically transitive. Assuming that the word order of intransitive clauses at this stage was SV, as it still is in Äiwoo today,<sup>10</sup> subject markers in actor-voice clauses would pattern like those in intransitive clauses, preceding the verb. Once the voice alternation is lost and the prefixed vs. suffixed subject markers are reanalyzed as indicating a difference in transitivity, this is precisely the result one would predict: a clause that is transitive from a syntactic point of view, but whose morphology has become aligned with that found in intransitive clauses.

The Äiwoo OVA pattern, in turn, retains most of the basic properties of an undergoer-voice clause in a symmetrical voice-marking system. First, the fact that verbs in these constructions show subject suffixes as opposed to prefixes is a consequence of the post-verbal position of actor arguments in the object voice. Second, the unusual pattern found in these clauses of what appears to be an ergatively structured verb phrase, including the V and A but not O or S, falls out straightforwardly from the properties of a western Austronesian voice system as illustrated by Balinese in (1), where the A in the undergoer voice forms a constituent with the verb. As noted in 4.3 above, Äiwoo does not appear to have a pivot, unlike a language like Balinese, where the preverbal argument (S and A in the actor voice, S and O in the object voice) functions as the pivot in multiclausal constructions. The loss of the pivot in Äiwoo is likely a consequence of the aforementioned process of argument pronouns becoming bound to the verb, as head-marking languages typically lack pivots (Falk 2006, Næss 2012a). Taken together, these developments explain how Äiwoo has ended up with an ergatively structured verb phrase without also having an S/O pivot, a state of affairs that otherwise appears to be highly unusual.

It may be noted that, unlike in Balinese, there is no VO constituent in the Äiwoo AVO construction matching the VA constituent found in the OVA construction, as can be seen from examples in (11) showing that the clitics used as a diagnostic of constituency in 4.3

10. In general, reconstructions of Proto-Austronesian and PMP voice systems assume active and intransitive clauses to have patterned similarly in at least some cases (for example, Lynch, Ross, and Crowley 2002:59); cf. below.

occur between the verb and the O argument. This can be explained by the fact that the original system likely showed a similar asymmetry: the actor voice in PMP is reconstructed as being formally intransitive (see, for example, Kikusawa 2008 and Ross 2012), in the sense that, while it had two valence-bound arguments, the object NP was oblique and the verb morphology matched that of intransitive clauses. If the original O argument of the actor-voice construction was oblique, it would naturally have been more loosely bound to the verb than the actor in the object voice, which was fully transitive. The structural symmetry found in Indonesian-type languages like Balinese, which have both a VA constituent in the actor voice and a VO constituent in the object voice, presumably constitutes a separate development from the original PMP system.

Finally, the preverbal position of the object in OVA clauses is mirrored by word order in undergoer-voice clauses in a number of present-day western Austronesian languages; in the symmetrical voice systems of these languages, the focused argument, that is, the one picked out by the voice morphology, is preverbal.

To summarize, Äiwoo offers an illuminating example of a transitional system between “western Austronesian-type” and “Oceanic-type” morphosyntax. It has clearly made the transition from voice-based to transitivity-based morphology, in that both the position of the bound subject pronouns and the remains of the original voice morphology are associated with a formal distinction between transitive and intransitive clauses. At the same time, this system transparently derives from a western Austronesian-style voice system. The development suggested by Pawley and Reid (2011 [1979]) and Ross (2012), whereby the verbal markers for goal voice and locative voice merged into a single object voice marked by \*-i, which subsequently changed function from object voice marker to transitivity marker, is clearly illustrated by verb alternation patterns 1a–c discussed in 4.5 above, where many transitively inflecting forms take a suffix -i, whereas several of the other patterns appear to reflect traces of earlier actor-voice morphology in the intransitively inflected forms. The assumption that the system derives from an earlier voice system furthermore explains the unusual pattern of subject marking, as well as the basic syntactic properties of both the OVA and the AVO clause types. Perhaps most interestingly from a comparative Oceanic perspective, the analysis explains the odd pattern of “transitive discord” in AVO clauses, parallels to which are found in numerous other Oceanic languages: the reanalysis of the subject prefixes and suffixes from marking actors in the actor voice vs. the object voice to marking subjects of intransitive and transitive clauses, respectively, left these clauses with a combination of intransitive person marking and a syntactic object argument.

**6. HISTORICAL IMPLICATIONS.** If Äiwoo, an Oceanic language, shows clear traces of the voice alternations thought to be characteristic of western Austronesian languages, what does this imply about the history of Äiwoo, and of Oceanic in general?

It is not possible on the basis of presently available morphological evidence to reliably link Äiwoo to any non-Oceanic Austronesian languages. First, the sound correspondences linking Äiwoo and the other Reefs-Santa Cruz languages to Proto-Oceanic are extremely complex and still only partly understood (Ross and Næss 2007). Second, existing reconstructions of Proto-Oceanic subject pronominals are tentative and problematic

(Lynch, Ross, and Crowley 2002:65–66, Malcolm Ross pers. comm.), meaning that any attempt at establishing cognacy between the POC system and any non-Oceanic Austronesian system would be fraught with uncertainties. Third, the subject markers in Äiwoo are almost certainly independently innovated, as indicated by two types of evidence.

The first is the anomalous 3AUG.S prefix *li-/li-*, which was mentioned in 4.2 above. As noted there, this prefix differs from the other person prefixes in that it follows rather than precedes the aspect/mood prefixes. Furthermore, verb roots following this prefix show fortis reflexes of POC \*p (and possibly \*p<sup>w</sup>) that have been lost everywhere else, as, for example, *vāngā* ‘eat.ITR’ (< POC \*paŋan), but *ki-li-pāngā* (IPFV-3AUG.S-eat.ITR) ‘they eat’. This indicates that this prefix is a relic of an older system of pronominal prefixes, and that the other prefixes are later innovations.

The second type of evidence is the differences between the person markers in Äiwoo and its closest relatives, the Santa Cruz languages. All the bound pronominals in Äiwoo appear to reflect PMP genitives, whereas in Natügu of northern Santa Cruz, the default set of pronominals used for S, A, and O reflect PMP nominatives (Malcolm Ross, pers. comm.), while only the second set, with a much more limited distribution, reflect the genitives. Furthermore, bound pronominals have a different formal status in Äiwoo as opposed to the Santa Cruz languages. In Äiwoo they are affixes, which are closely bound to the verb stem and, in the case of the A and O suffixes, precede enclitics such as the tense and aspect clitics illustrated in (6)–(7) above and the negation clitic =*gu*. In Natügu, by contrast, the subject markers are enclitics that follow all other verbal elements except for the negation clitic (Boerger n.d.); and in Engdewu they follow all other verbal elements *including* the negation clitic (Vaa n.d.). Äiwoo is also the only Reefs-Santa Cruz (RSC) language that shows a distinction between subject prefixes for intransitive verbs and subject suffixes for transitive verbs; in Natügu and Engdewu, all person markers follow the verb, with the exception of a prefix for the 3rd person augmented, which is usually found in combination with a postverbal marker and probably derives from a marker of a generic agent (Næss n.d.). All this strongly suggests that the RSC languages have innovated their person markers from different pronoun sets and at different times.

Despite these limitations, the analysis presented in this paper has clear implications for our understanding of the structure of Proto-Oceanic. As noted in the introduction, the voice alternations of PMP are generally thought to have been lost by the time of POC, the original system having been reanalyzed into one primarily marking a distinction between transitive and intransitive clauses (Lynch, Ross, and Crowley 2002:62). But if my analysis of the historical origin of the unusual clause patterns in Äiwoo is correct, something like a voice system must have persisted into some fairly immediate ancestor of Äiwoo—Proto-Oceanic being the obvious candidate.

More research is obviously needed to establish what the characteristics of such a voice system would have been, although a few suggestions may be made on the basis of the properties of Äiwoo. There will have been, minimally, an actor voice and an under-goer voice, although the system may have been on the brink of reanalysis. Ross (2012) notes that what were originally dependent verb forms in PMP, found following “pre-verbs” including negators, mood and aspect markers, and certain conjunctions, were reanalyzed in POC as independent forms. This would have entailed the loss of productive

actor-voice morphology, as the dependent actor voice in PMP was unmarked; and the object voice would have been marked by the suffix \*-i rather than \*-an or \*<in>-V-an as was found in PMP imperfective and perfective independent forms, respectively. The fact that the only clear reflexes of undergoer-voice morphology in Äiwoo take the form of a suffix -i suggests an ancestral system where \*-i was the undergoer-voice marker<sup>11</sup>. The fact that reflexes of independent actor-voice \*<um> still persist in a few lexical items in Äiwoo is not unexpected under such a scenario, as reanalysis often happens on a lexeme-by-lexeme basis; in the majority of cases, however, the marking was lost, leading to loss of the morphological category as a whole and leaving the few relics of \*<um> without a grammatical function.

In the established literature, the reanalysis of dependent to independent forms tends to be conflated with the reanalysis of the voice system into a system marking distinctions in transitivity, but these are in fact two independent stages. The immediate outcome of the dependent-to-independent reanalysis is a system where there is still a contrast between actor-voice and undergoer-voice clauses, but there is no longer a productive morphological marker of the actor voice. This leaves the system ripe for reanalysis in terms of intransitive (unmarked) vs. transitive (-i-marked) clauses. I suggest that this second stage of reanalysis, which is reflected in most present-day Oceanic languages, had, in fact, not yet taken place in Proto-Oceanic.

All the RSC languages also have applicative morphemes that are likely reflexes of the PMP location-voice suffix \*-an (or possibly circumstantial voice \*-ani, though this morpheme would not have cooccurred with \*<in>, whereas the RSC reflexes do); but more research is needed into the exact properties of these. It may be noted, however, that the Natügu applicative -ngō is followed by a “Set II” subject marker: (markers of this set reflect PMP genitives (cf. above) as opposed to the Set I markers, which reflect PMP nominatives (van den Berg and Boerger 2011:231–32). This is to be expected under the assumption that the applicative reflects the PMP locative or circumstantial voice, since actor arguments in PMP nonactor voices were genitives.

On the basis of the asymmetrical properties of Äiwoo AVO and OVA clauses, where the V and A in the OVA construction form a constituent but the V and O in the AVO construction do not, the system would have had a transitive undergoer voice and an intransitive actor voice with an oblique O argument, much like the system reconstructed for PMP.

Lynch, Ross, and Crowley (2002:86) suggest that, like PMP, POC was verb-initial. Äiwoo, on the other hand, seems to reflect a system where the “focused” argument was preverbal while the second argument followed the verb, similar to that found in present-day Indonesian-type languages. However, this may be a distinct development in Äiwoo, as Natügu of northern Santa Cruz shows VS/VAO order and subject enclitics on both transitive and intransitive verbs, while Engdewu, the third RSC language for which there are available data, has subject enclitics like Natügu, but SV/OVA order like Äiwoo. The latter

11. Natügu of northern Santa Cruz reflects \*<in> in a prefix that van den Berg and Boerger (2011) argue functions as a passive marker, and take as evidence that POC \*<in>/\*ni- also had a passivizing function. However, a closer analysis of RSC as a group suggests that the function of this prefix is more appropriately characterized as marking a generic agent (Vaa 2013, Næss n.d.). Äiwoo reflects \*<in> only in its nominalizing function, while the generic-agent function has been taken over by the aforementioned 3AUG.S prefix *li-/lu-*, presumably a reflex of an earlier 3PL \*ri- or \*ra-.



may be due to language contact, as there is considerable contact, including regular inter-marriage, between Äiwoo and Engdewu speakers on Santa Cruz (Boerger et al. 2012:131). The pattern in Äiwoo may point the way toward the “TVX” order found in some Oceanic languages, where a topic NP comes before the verb and all other arguments and adjuncts follow it. This may also help account for the typologically unusual situation in Äiwoo, where only nominal objects are preverbal, whereas pronominal objects follow the verb, a distribution that violates Greenberg’s Universal 25 (Greenberg 1963:91). Rau (2000) shows in a study of word order in Atayal that pronominal subjects strongly favor VS order, whereas nominal subjects strongly favor SV order; she concludes that VS order is associated with old information and topic continuity, whereas SV order is associated with new information and topic discontinuity. As objects are, in general, secondary topics, and as undergoer-voice clauses are associated with definite and, therefore, topical objects, a similar explanation might hold for the distribution of objects in Äiwoo.

**7. CONCLUSION.** In this paper, I have argued that the basic clause patterns of present-day Äiwoo must be understood as deriving from a symmetrical voice system of the type characteristic of many western Austronesian languages, but not usually present in Oceanic languages. I have argued that, contrary to established assumptions, this implies that at least the basic properties of such a voice system must have persisted into Proto-Oceanic. I have attempted a rough outline of what these properties would have been, suggesting that they represent a stage immediately prior to the reanalysis from a voice-marking to a transitivity-marking system that is usually assumed to have been completed by the time of Proto-Oceanic: productive actor-voice morphology had been lost following the reanalysis of PMP dependent forms as independent forms, leaving a contrast between an unmarked actor voice and an undergoer voice marked by \*-i. This was subsequently reanalyzed as a contrast between an unmarked intransitive clause type and an \*-i-marked transitive clause type, a system that is reflected in the majority of present-day Oceanic languages. However, on the evidence of Äiwoo, this reanalysis was not yet complete by the time of Proto-Oceanic, since Äiwoo still shows obvious traces of the original voice system.

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