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ACADEMIA SINICA

This paper aims to shed some light on the noun-verb distinction in Kanakanavu and Saaroa through a reassessment of their pronominal systems. For both Kanakanavu and Saaroa, we propose two sets of genitive pronouns, the first encoding nonsubject actors, and the second possessors. The characteristics of these pronoun sets differ in the two languages, but their morphosyntactic behavior allows us to make a distinction between nouns and verbs in each language.

In Kanakanavu, first and second genitive pronouns do not show any distinction in form (though they differ in terms of distribution) when they encode a nonsubject actor or a possessor; in the third person, there are asymmetrical properties in distribution between the two distinct genitive pronouns *=ke* and *-ini*. In Saaroa, on the other hand, among genitive pronouns encoding nonsubject actors, there is an asymmetry between first person genitive pronouns (singular and plural) as opposed to second and third person pronouns. While first person genitive pronouns occur as enclitics, second and third person genitive pronouns occur as proclitics.

1. INTRODUCTION.[1] Kanakanavu and Saaroa are two of the most endangered Austronesian languages of Taiwan. They are each spoken by fewer than ten fluent speakers, who live in southern Taiwan. The Kanakanavu live in the Manga and Takanua villages of Namasia District, Kaohsiung City (formerly Sanmin Township, Kaohsiung County), while the Saaroa reside principally in the Taoyuan and Kaochung villages, Taoyuan District, Kaohsiung City (formerly Taoyuan Township, Kaohsiung County). (See map 1.)

1. This paper provides partial results of a three-year (2013–2015) thematic project entitled "The internal relationships of 'Tsouic' revisited," headed by Elizabeth Zeitoun, coheaded by Stacy F. Teng and Hsiu-chuan Liao, and sponsored by Academia Sinica (Grant number: AS-102-TP-C05). We are grateful to our language consultants on Kanakanavu and Saaroa for patiently sharing the knowledge of their languages with us. Stacy F. Teng presented the section on Kanakanavu pronouns at the Seventh Austronesian and Papuan Languages and Linguistics International Conference with the support of a MOST travel grant (Teng and Zeitoun 2014) and that on Saaroa pronouns at the Thirteenth International Conference on Austronesian Linguistics (Teng and Zeitoun 2015). We are grateful to the audience of both conferences where partial findings were presented, as well as an anonymous reviewer, for their constructive comments. We also thank Raleigh Ferrell and Malcolm Ross for comments on the final draft of this paper, and Chih-hsien Lin for drawing the map. We acknowledge the help provided by the members of the Association of Kanakanavu Cultural and Industrial Development.

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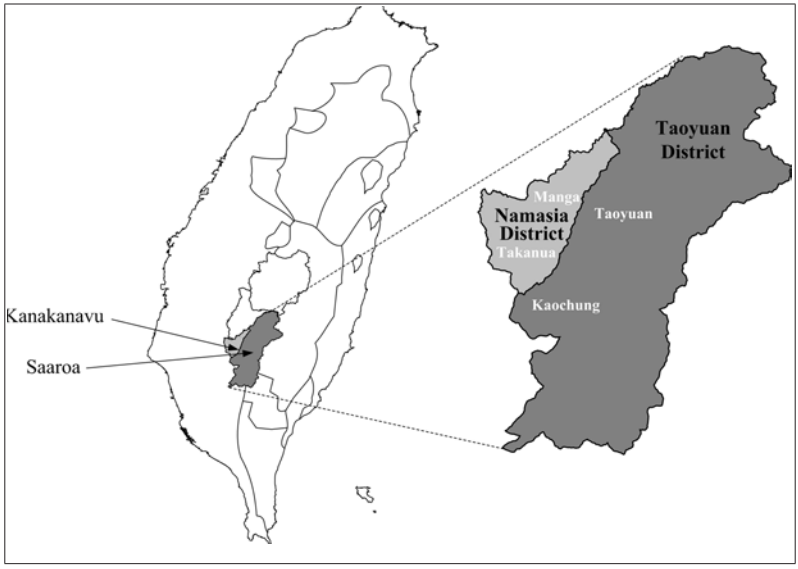
MAP 1. GEOGRAPHICAL LOCATION OF KANAKANAVU AND SAAROA



Despite the fact that Kanakanavu and Saaroa have been investigated in considerable detail in recent years (see Wu 2006; Chang 2014; Deng 2014; Liu 2014; Cheng and Sung 2015 on Kanakanavu, and Radetzky 2004; C. Li 2009, 2010; Pan 2012 on Saaroa), many descriptions are flawed because they are based on commonly accepted assumptions that contradict certain linguistic facts that have not been reported carefully, or on data that have been analyzed wrongly. The meticulous investigation of these two languages is important, however, not only because of their degree of endangerment but also because the more we know about Kanakanavu and Saaroa grammars the more we will be able to understand their exact position with respect to Tsou, as well as their position in the higher phylogeny of the Austronesian languages (see Ross 2009; Zeitoun and Teng 2016).[2] Tsou, Kanakanavu, and Saaroa are believed to form the Tsouic group (Tsuchida 1976) and constitute one of the ten primary subgroups in Blust's (1999) classification, though recent studies by Ross (2009, 2012) tend to suggest that Saaroa and Kanakanavu do not subgroup with Tsou.

In this paper, we provide new insights on these two languages, and more specifically examine the noun-verb distinction through a reassessment of pronouns in both languages. One major distinction that needs to be pointed out concerns the organization of the clause structure of these two languages. Kanakanavu usually makes use of auxiliaries (for example, *te:* 'IPFV'[3] and *'e:si* 'PROG'), while Saaroa does not seem to possess any. This has

2. Such studies were already shown to be necessary by Raleigh Ferrell back in 1969: "It is obvious that questions [related to the relationships between Tsou, Kanakanavu and Saaroa], as well as the problem of interrelationships with the Paiwanic languages, cannot be decided until structure and phonological studies in depth are completed" (Ferrell 1969:68).
3. Clauses headed by the auxiliary *te:-* (< *tia*) 'IPFV' can be interpreted as habitual or irrealis. They refer to "nonperfective" situations. Clauses headed by the auxiliary *'e:si=* (< *'aisi*) 'PROG' are always understood as progressive. AV <*um*>-marked verbs undergo Ca-reduplication in all these contexts.

repercussions on clause structure in that first and second person pronouns cliticize to the auxiliary (rather than the verb) in Kanakanavu, while a similar phenomenon is not found in Saaroa. In the two languages, pronouns cliticize to the negator, but here again discrepancies exist. We observe an attrition of the case-marking systems in both languages. We start with a discussion of Kanakanavu (section 2), and then turn to Saaroa (section 3). Section 4 offers a conclusion and outlines a number of synchronic and diachronic implications.

2. KANAKANAVU. In 2.1, we review briefly focus (or voice) in earlier studies on Kanakanavu and show that most of our predecessors have never really questioned the distinction that can be made between voice and nominalization in these two languages. In 2.2, we summarize earlier studies on the pronominal system of this language. A reassessment of these two issues is given in the course of our discussion.

2.1 BRIEF REVIEW AND REASSESSMENT OF FOCUS/VOICE IN KANAKANAVU. Our summary will be short (but illustrated, whenever necessary, by examples), and readers are referred to Zeitoun and Teng (2016) for detail. Three studies need to be mentioned with regard to the focus/voice system of Kanakanavu: Tsuchida (1976), Wu (2006), and Ross (2009).

According to Tsuchida (1976:44ff), Kanakanavu exhibits a system of four foci: actor focus (AF),[4] goal focus (GF), locative focus (LF), and special focus (SF). He states that the focus forms *m-* 'AF', *ni-*/<*in*> 'GF', *ni-*…*-a*(*nʉ*) 'LF', and *-ai* 'SF' interact closely with four aspects—neutral, imperfective, imperative, and perfective. [5]

(1) KANAKANAVU

a. AF: the subject is the actor of the action

ni-miapacaí sua[6] cáau sua tutúi na ta-u-canúm-a.
PFV-kill.AF NOM person OBL pig LOC place-draw-water-place
'The man **killed** a pig at the place to draw water.' (Tsuchida 1976:47)

4. For the sake of convenience, we adopt a Romanized orthography rather than IPA symbols as in earlier studies, whereby ' stands for the glottal stop /ʔ/, *ng* for the velar nasal /ŋ/, *c* for the affricate /ts/, *lh* for the lateral fricative /ɬ/, and *ʉ* for schwa /ə/. As is conventional, sentences and proper nouns do not begin with capital letters in Formosan languages. With the exception of the following, abbreviations follow those given in the Leipzig Glossing Rules: AF, actor focus; AV, actor voice; B/IF, beneficiary/instrument focus; CaRED, Ca-reduplication; CIRNMLZ, circumstantial nominalization; COS, change of state; DEP, dependent; DIR, directive; GF, goal focus; IF, instrument focus; I/BV, instrument/beneficiary voice; LF, locative focus; LV, locative voice; NAF, nonactor focus; NSA, nonsubject actor; OF, object focus; PF, patient focus; PSR, possessor; PTC, particle; RED, reduplication; SF, special focus; SUF, suffix; UV, undergoer voice; UVC, undergoer voice: circumstantial; UVL, undergoer voice: locative; UVP, undergoer voice: patient.

5. Tsuchida (1976) considers anything other than full lexical items to be clitics. However, adding equal signs before nearly all the morphemes renders the examples difficult to read. Thus, we have gotten rid of these equal signs when making use of Tsuchida's examples. For the sake of clarity, we have also made slight modifications so that there is a correspondence in number between the morphemes and the glosses. We have standardized glossing conventions but have otherwise tried to keep his glosses. We do the same when referring to examples taken from other authors.

6. In Kanakanavu, the marker *sua*, which tends to be used as nominative, is not obligatory. Tsuchida (1976:36) reports that it can also function as an oblique, but this is not found in our corpus. The locative *na* seldom occurs, but its occurrence is obligatory.

b. GF: the subject is the object (goal) directly affected by the action
ni-piapacái sua cáau sua tutúi na ta-u-canúm-a.
PFV-kill.GF OBL person NOM pig LOC place-draw-water-place
'A man **killed** the pig at the place to draw water.' (Tsuchida 1976:48)

c. LF: the subject is a location
ni-piapacál-a sua cáau sua tutúi sua ta-u-canúm-a.
PFV-kill-LF OBL person OBL pig NOM place-draw-water-place
'The place of drawing water is where a man **killed** a pig.'
(Tsuchida 1976:49)

d. SF: the agent of the action, when a pronoun, is marked as OBL
piapacál-ai[7] sua cáau sua tutúi na ta-u-canúm-a.
kill-SF OBL person NOM pig LOC place-draw-water-place
'The pig **was killed** by a man at the place to draw water.'
(Tsuchida 1976:50)

Wu (2006) recognizes four foci, AF, PF, LF, and beneficiary/instrument focus (B/IF). He was the first to analyze *si-* as a B/IF marker. To avoid the repetition of similar examples as above, we only provide below an example of a verb marked as "B/IF".

(2) KANAKANAVU
se-su'u-maku pa'ici nononomani i:si (na) takuacapa. (B/IF)
IF-put-1SG.GEN wine thing this LOC table
'I use the thing (container) to put wine on the table.' (Wu 2006:112)

Ross (2009) considers that Kanakanavu exhibits a voice dichotomy, AV (Actor Voice) vs. UV (Undergoes Voice), and that UV includes UVP and UVL. He reinterprets certain forms—Tsuchida's neutral form is reinterpreted as realis—without providing any examples, and posits new categories (narrative, dependent, and durative). He treats Tsuchida's SF *-ai* as narrative UVP. Dependent forms represent base forms, and the durative is expressed through reduplication on AV M-forms.[8] Ross (2009) does not identify any UVC verbal form; rather, *si*-STEM is analyzed as a nominalized form.

As shown in table 1, we analyze Kanakanavu as displaying two voices that are distinguished morphologically and syntactically. There is a dichotomy between indicative (with further aspectual distinctions) and nonindicative moods. Kanakanavu is partially subject to negative polarity, that is, different negators are followed by verb forms that are either in the indicative or in the nonindicative mood. In the indicative (affirmative), Kanakanavu distinguishes between perfective (encoded through <*in*> in both AV and UV clauses) (3a-b) and imperfective (marked by Ca-reduplication in AV clauses and unmarked in UV clauses) (3c-d). In the nonindicative mood (affirmative), there is a distinction between imperative (marked by M-…*-a* in AV-marked verbs and *-o* in UV-marked verbs) (3e-f) and directive (encoded by M-…*-an* in AV-marked verbs) (3g). Embedded verbs are marked by M- (which refers to dependent marking) (3h).

7. Tsuchida (1976:51) mentions two allomorphs: *-i* and *-ai*. The former occurs when the base ends in *a*, as in *cu'ura-i* 'see (SF, NEUT)' and the latter elsewhere.
8. M-stems refer to any type of AV marking.

TABLE 1. A BIRD'S EYE VIEW OF KANAKANAVU VOICE, MOOD, AND ASPECT, WITH THE VERB 'STAB' AS AN ILLUSTRATION†

			Actor voice		Undergoer voice	
			AV	**Example**	**UV**	**Example**
Indicative	Affirmative	Perfective	ni-M-STEM / <in>M-STEM	c<in><m>aku̶pu̶	ni-STEM / <in>STEM	c<in>aku̶pu̶
		Imperfective				
	Negative	Predicative **ka'an** Imperative **no:mani'i**‡	Ca-M-STEM	c<um>a-caku̶pu̶	STEM-u̶n	caku̶p-u̶n
Nonindicative	Affirmative	Imperative	M-STEM-a	c<um>aku̶p-a	STEM-o#	caku̶p-o
		Directive	M-STEM-an	c<um>aku̶p-an	—	—
		Dependent				
	Negative	Predicative **kuu** Imperative **'akuni**	M-STEM	c<um>aku̶pu̶	STEM-e	caku̶p-e

† Based on Zeitoun and Teng (2016) and Zeitoun, Teng, and Chen (n.d.).
‡ The negator *no:mani'i* in itself means "Don't!"/"No!", and can actually occur alone.
# In the past fifty years or so, the diphthongs *ai*/*ia* and *au*/*ua* have monophthongized as *e* and *o*, respectively, and these sound changes have led to a restructuring of the phonological system of Kanakanavu (Chen 2016; Zeitoun, Teng, and Chen n.d.). Our informants do not accept the *-ai* and *-au* endings, and instead pronounce *-e* and *-o*.

(3) KANAKANAVU

a. **ni-k<um>o'oru**=cu=ku tammi.
PFV-<AV> dig=COS=1SG.NOM sweet.potato
'I already dug sweet potatoes.'

b. **c<in>apa**=maku 'alam.
<PFV.UV>roast=1SG.GEN.NSA meat
'I roasted meat.'

c. te:=kita **'<um>a-'avun** ca:u ni-ara-[a]ka.
IPFV=1PL.INCL.NOM <AV>CaRED-bury person PFV-INCH-bad
'We will bury the dead person.'

d. te:=maku **caku̶p-u̶n** ca:u i:sa.
IPFV=1SG.GEN.NSA stab-UV person that
'I will stab that person.'

e. **um-al-a**=pa vantuku!
AV-take-IMP=still money
'Take the money, please!'

f. **kaun-o** vutukulu i:si!
eat-IMP.UV fish this
'Eat this fish!'

g. **tanam-an** makanangulu!
try-AV.DIR AV.swim
'Try to swim!'

h. ni-rucin=ku **um-ala** tan~~u~~k~~u~~.
PFV-two=1SG.NOM AV.DEP-take taro
'I took two taros.'

Table 2 provides an overview of nominalization in Kanakanavu.[9] There is partial syncretism between patient and location nominalization: see *ni-…-a*(*n*) and <*in*>…*-a*(*n*). It is clear that what correspond to Tsuchida's (1976) LF *ni-…-an*/<*in*>…*-an*, *-a*, and Wu's (2006) I/BF *si-* voice markers, are actually nominalizing formatives. These are used quite productively as will be further demonstrated in 2.3. A few examples of nominalized verbs are given below as an illustration.

(4) KANAKANAVU
a. **t<in>apus-an**=cu v~~u~~:ra.
<PFV>winnow-PATNMLZ=COS rice
'The rice has already been winnowed.'
b. **t<in>puru-an**=cu.
<PFV>sit-LOCNMLZ=COS
'(This chair) has already been sat on.'
c. 'una=pi=kita tia **si-pakarikari**=mita.
exist=still=1PL.INCL.NOM IPFV INSNMLZ-discuss=1PL.INCL.GEN.PSR
'We still have things to discuss.'

TABLE 2. AN ILLUSTRATED BIRD'S EYE VIEW OF NOMINALIZATION IN KANAKANAVU†

Type of nominalization		Formative	Example	Base
Agent		ni-M/<in>M	t<in><m>angi 'who cried (AV)'	t<um>a-tangi 'cry (AV)'
		M-	mi-ima '(who) drinks'	mi-ima 'drink (AV)'
Patient	Perfective	ni-…-a(n)‡ <in>...-a(n)	ne-racakan-a ~ ni-aracakan-a 'game'	aracakan(~~u~~) 'hunt'
	Imperfective	…-a(n)	ka~~u~~n-a 'food'	k<um>a-ka~~u~~n 'eat (AV)'
Location	Perfective	ni-…-a(n) <in>...-a(n)	ni-pe-pacal-an 'place of killing'	me:pacai 'kill (AV)'
	Imperfective	ta-…-a(n)	ta-t~~u~~s'~~u~~v-a 'church'	m~~usu~~'~~uvu~~ 'pray (AV)'
Instrument		si- se- sie- si-...-a	si-putungisingisi 'razor' se-risinat~~u~~ 'pencil' sie-sima'~~u~~ 'toy' si-'~~unuv~~-a 'door'	putungisingisi 'shave (beard)' marisinat~~u~~ 'write (AV)' s<um>a-sima' 'play (AV)' ~~putu~~-'~~unuvu~~ 'close door (AV)'

† Based on Zeitoun, Teng, and Chen (n.d.).
‡ There is no *ni-*/<*in*> patient nominalization.

2.2 DISTRIBUTION AND FUNCTION OF KANAKANAVU PRONOUNS IN TSUCHIDA (1976) AND OUR PERSPECTIVE. There are few studies of the Kanakanavu pronominal system (Ogawa and Asai 1935; Tsuchida 1976; Mei 1982; Ho 1997; P. Li 1997). We believe that Tsuchida (1976:37ff), the only source summarized here, represents the most authoritative study for at least two reasons: (i) the data are well recorded and generally reliable (that is not always the case, unfortunately), and (ii) the anal-

9. We will not make any attempt in this paper to distinguish between lexical and syntactic nominalization in Kanakanavu and Saaroa, an issue discussed in another paper (Zeitoun and Teng n.d.).

ysis proposed in this work laid the foundations for studies that have followed it. Because of limitations of space, we outline only points that are relevant to the present study.

Tsuchida recognizes five sets of pronouns: independent, nominative, agentive, genitive, and oblique. While the independent set is free, the other sets are either enclitics or suffixes (table 3).

TABLE 3. KANAKANAVU PERSONAL PRONOUNS†

	Independent	Enclitic/Suffixal						
		Nominative		Agentive		Genitive		Oblique
		I	II	I	II	I	II	
1SG	íiku íikia	=ku =kía		-aku	=máku	-aku	=máku	='ikúa
2SG	íikasu iimukásu	=kásu		=su	=músu	=su	=músu	=kasúa
1PL.INCL	íikita	=kíta		=ta	=míta	=ta	=míta	=kitána
1PL.EXCL	íikimi íikia	=kími =kía			=mía		=mía	=kimía
2PL	íikamu íimukámu	=kámu			=mu		=mu	=kamúa
3(PL)	—	Ø	-ini		=kiái		-ini	='inía

† Based on Tsuchida (1976:38).

While Tsuchida (1976:37ff) does not discuss the case function of nominative and genitive pronouns (each of which he divides into two sets), he indicates that an oblique pronoun encodes the goal of an action, as in (5a), an agent immediately following the verb in special focus (5b), and after *makai* 'like' (5c).

(5) KANAKANAVU

a. **tuuturu-au**=pa =kimía.
teach-GF.IMP=still =us
'Teach it to us.' (Tsuchida 1976:41)

b. **kuic-ái**=cu ='inía sua tavunuvunu.
peel-SF.NEUT=COS =by-him NOM banana
'He peeled the banana.' (Tsuchida 1976:42)

c. **makai** =kasúa hóokia
like =thou rich
'rich like you' (Tsuchida 1976:42)

Two nominative sets are distinguished because of the occurrence of *-ini* '3SG'[10] in temporal, conditional, and (causal)/concessive clauses beginning with *nu* 'if', *mia* 'at the time when', and *si* 'although (/because)', respectively (Tsuchida 1976:39):

(6) KANAKANAVU

nu m-ata-palí'-ini sua íisua=ia tiá 'ucángu=su.
if AF.NEUT-fall-fall-it.NOM that=TOP will spouse=your
'If that falls down, he will be your husband.' (Tsuchida 1976:39-40)

A distinction between two sets of agentive and genitive pronouns is also made because of the contrast between *=kiái* and *=ini* (Tsuchida 1976:40). Regarding the former, Tsuchida notes that it never attaches to a proclitic particle if any occurs before the

verb, as other agentive pronouns do; rather it always follows the verb,[11] but it attaches to the negator *kuu*= 'do/did not'. Compare (7a–c). The suffix *-ini*, on the other hand, only encodes the possessor, as shown in (7d).

(7) KANAKANAVU

a. **cu'ura-un**-aku sua taniaru.
see-GF.IPFV-by.me NOM sun
'The sun is seen by me.'

a′. tia=maku **cu'ura-un** sua taniaru.
will=by.me see-GF.IPFV NOM sun
'The sun will be seen by me.'

b. tia **cu'ura-un**=kiái sua taniaru.
will see-GF.IPFV=by.him NOM sun
'The sun will be seen by him.'

c. kuu=kiái **cu'ura-i** sua taniaru.
never=by.him see-SF.NEUT NOM sun
'He never saw the sun.'

d. navungú-ini
head-3.GEN
'my head' (Tsuchida 1976:40–41)

In our analysis, personal pronouns in Kanakanavu exhibit a three-case distinction: nominative, oblique, and genitive. Pronouns are further divided into five sets: one free, the other four clitics (with different degrees of boundedness, the description of which is beyond the scope of the present paper), except for *-ini*, which we treat as a suffix for reasons that are presented below. The genitive set is divided into two subsets: nonsubject actor pronouns (NSA) and possessor pronouns (PSR). This is shown in table 4.

With respect to Tsuchida's (1976) observations (briefly summarized above), we note that *-ini* only functions as a genitive (PSR) pronoun, never as nominative, as assumed by Tsuchida (1976). We treat a subordinate clause headed by *nu* (or *mia*, etc.) as a nominalized clause when a genitive (PSR) pronoun is present.[12]

10. Tsuchida (1976:39) believes that *-ini* has three allomorphs: *-ini*, *=ini*, and *-i*: *-i* occurs after *cania* (or *naapa*) 'barely, at least', and after *=cu* 'already' (cf. *=c-i*), as in (i) below; *=ini* occurs after other particles, as in (ii); and *-ini* occurs elsewhere, as in (6), partially repeated below as (iii).

(i) KANAKANAVU
mia m-utu-vangu**u**vangu**u**=**c-i** sua napálanga=ia [...]
when AF.NEUT-all-die=already-they NOM Napalanga=TOP
'When the Napalangans all died […]'

(ii) KANAKANAVU
nu m-aka-asua='ai=**ini**=ia [...]
if like-that=uncertain=it.NOM=TOP
'If that's the case […]'

(iii) KANAKANAVU
nu m-atapalí'-**ini** [...]
if AF.NEUT-fall-it.NOM
'If that falls down […]'

11. When the verb is marked as "special focus," it is always followed by a pronoun marked as oblique in the third person: thus, *'inia* instead of *=ke* (Tsuchida 1976:50).

TABLE 4. KANAKANAVU PERSONAL PRONOUNS†

	Nominative		Oblique	Genitive‡	
				Nonsubject actor (NSA)	Possessor (PSR)
1SG	i:ku	=ku =kia	=ikua	=aku, =maku	=aku, =maku
2SG	i:kasu	=kasu	=kasua	=musu, =su	=musu, =su
1PL.INCL	i:kita	=kita	=kitana	=mita, =ta	=mita, =ta
1PL.EXCL	i:kimi i:kia	=kimi =kia	=kimia	=mia	=mia
2PL	i:kamu	=kamu	=kamua	=mu	=mu
3SG/PL	nguain	-	=’inia	=ke	-ini

† Based on Zeitoun, Teng, and Chen (n.d.).
‡ We keep the term “genitive” for the purpose of cross-linguistic comparison.

(8) KANAKANAVU
mu matapalí’-ini sua íisua=ia tiá ’ucángu=su.
if fall-**3.GEN.PSR** NOM that=TOP will spouse=2SG.GEN.PSR
‘If that falls down, he will be your husband.’
(based on Tsuchida 1976:39–40 but with our own glosses)

While first and second genitive pronouns do not show morphological distinction when coding nonsubject actors or possessors, such a distinction is crucial in the third person.

The pronoun *-ini* ‘3.GEN.PSR’ is used to express a possessor, as in (9a), whereas *=ke* ‘3.GEN.NSA’ refers to a nonsubject actor, as in (9b). The distribution of these two pronouns cannot be inverted, as shown by the ungrammaticality of (9a′) and (9b′).

(9) KANAKANAVU
a. manu**-in**
child-3.GEN.PSR
‘his/her child’

a′. *manu**=ke**
child=3.GEN.NSA

b. s<in>a’u̶m**=ke** vi:ki.
<PFV.UV>chew=3.GEN.NSA betelnut
‘S/he chewed betelnuts.’

b′. *s<in>a’u̶m**-in** vi:ki.
<PFV.UV>chew-3.GEN.NSA betelnut

Such a distinction in third person pronouns is important, and serves as a very useful diagnostic for distinguishing verbs from nouns in Kanakanavu. We turn to this issue in the next section.

With regard to its morphological status, the third genitive PSR pronoun *-ini* is more likely to be a suffix than a clitic (or at least more bound to the host than first and second

12. Note that a pronoun may also be marked as nominative in such clauses, as shown below:
(iv) KANAKANAVU
nu ivatu=cu=**kasu**=ia, te:=ci=kita k<um>a-ka̶u̶n.
if come=COS=**2S.NOM**=TOP IPFV=COS=1PI.NOM <AV>CaRED-eat
‘When you came, we were already eating.’
To account for such examples, we hypothesize that Kanakanavu speakers have reanalyzed hypothetical *nu*-clauses as finite clauses.

genitive PSR pronouns) because it forms a phonological unit with its host and causes vowel change, whereas the corresponding first and second person genitive PSR forms do not. Consider, for instance, *cine:n* 'his/her mother'[13] vs. *cina=maku* 'my mother' (< *ci:na* 'mother'). In contrast, first and second person genitive NSA pronouns can be treated as second position clitics. When they denote a nonsubject actor, they always move onto the auxiliary (if there is one), as shown in (10). The genitive NSA pronoun *=ke* does not show such mobility, as shown in (11).

(10) KANAKANAVU

a. ni-'on**=maku** sielitung i:sa.
PFV.UV-carry=1SG.GEN.NSA papaya that
'I carried that papaya.'

b. te:**=maku** a'un-un sielitung i:si.
IPFV=1SG.GEN.NSA carry-UV papaya this
'I will carry this papaya.'

(11) KANAKANAVU

a. ni-'on**=ke** sielitung i:sa.
PFV.UV-carry=3.GEN.NSA papaya that
'S/he carried that papaya.'

b. *te:**=ke** a'un-un sielitung i:si.
IPFV=3.GEN.NSA carry-UV papaya this

b′. tia a'un-un**=ke** sielitung i:si.
IPFV carry-UV=3.GEN.NSA papaya this
'S/he will carry this papaya.'

The only situation where *=ke* may be moved forward is to the negator *kuu* 'do/did not', as mentioned by Tsuchida (1976:40). For example:

(12) KANAKANAVU

kuu**=ke** cʉ'ʉr-e taniarʉ.
NEG=3.GEN.NSA see-UV.DEP sun
'S/he didn't see the sun.'

2.3 THE NOUN-VERB DISTINCTION IN KANAKANAVU. The asymmetrical properties of *=ke* and *-ini* allow us to make a distinction between nouns and verbs in Kanakanavu and make certain generalizations that concern the two sets of genitive NSA and PSR pronouns.

Three diagnostics can be used to determine whether a given construction is verbal or nominal. First, as was mentioned previously, there are two distinct forms in third person that are used, depending on whether the pronoun encodes a nonsubject actor or a possessor; that is, whether the host to which the pronoun attaches is a verb or a noun. Examples (9b) and (9b′), repeated here as (13a) and (13b), serve to illustrate this difference and show that *=ke* is always attached to a verb (phrase) and *-in*(*i*) to a noun (phrase).

13. This might be a later development, though, as we also find: *cu:m-in* ~ *cuma-in* 'his/her father' (< *cu:ma* 'father'), instead of the expected form ***cume:n*.

(13) KANAKANAVU
a. manu-**in**
child-3.GEN.PSR
'his/her child'
b. s<in>a'~~um~~=**ke** vi:ki.
<PFV.UV>chew=3.GEN.NSA betelnut
'S/he chewed betelnuts.'

Second, while *=ke* can occur on the negative *kuu* 'do/did not', *-ini* cannot. Consider the grammaticality of (14a,b).

(14) KANAKANAVU
a. kuu=pa=**ke** ~~supur~~-e sinat~~u~~ i:sa.
NEG=still=3.GEN.NSA study-UV.DEP book that
'S/he has not studied that book yet.'
b. *kuu=pa-**ini** ~~supur~~-e sinat~~u~~ i:sa.
NEG=still-3.GEN.PSR study-UV.DEP book that

Though the distribution of third person genitive NSA pronouns differs from that of first and second person pronouns, we observe the same constraints: first and second genitive clitic pronouns must move onto the auxiliary or the negator (if any is present in the clause) when they denote a nonsubject actor, as shown in (15). When they are used to encode a possessor, however, they cannot be cliticized to the auxiliary or the negator, as shown in (16).

(15) KANAKANAVU
a. te:=**maku** apinganai-(i)n tapenange.
IPFV=1SG.GEN.NSA CAUS:fly-UV bird
'I made the bird fly!'
a′. *tia apinganai-(i)n=**maku** tapenange.
IPFV CAUS:fly-UV=1SG.GEN.NSA bird
b. ka'an=**aku** tia apinganai-(i)n tapenange.
NEG=1SG.GEN.NSA IPFV CAUS:fly-UV bird
'I did not make the bird fly!'
b′. *ka'an te:=**aku** apinganai-(i)n tapenange.
NEG IPFV=1SG.GEN.NSA CAUS:fly-UV bird

(16) KANAKANAVU
a. te:=ku mo:canumu tia ima=**mita**.
IPFV=1SG.NOM draw.water.AV IPFV drink=1PL.INCL.GEN.PSR
'I will draw water for us to drink.' (lit. 'I will draw water for our drinking.')
a′. *te:=ku mo:canumu tia=**mita** i:ma.
IPFV=1SG.NOM draw.water.AV IPFV=1PL.INCL.GEN.PSR drink
b. ka'an sikam=**aku/=maku**.
NEG mat=1SG.GEN.PSR
'It is not my mat.'
b′. *ka'an=**aku/=maku** sikam.
NEG=1SG.GEN.PSR mat

Third, the occurrence of the noun phrase marker *sua* can also serve as an indication that the construction following it is nominal, as shown in (17). The marker *sua* indicates that the NP following *sua* is subject of the clause. However, because the word order is fixed, in modern Kanakanavu the occurrence of *sua* has become optional.

(17) KANAKANAVU

a. ni-ka**u**n ngiau **(sua)** tapenange.
PFV.UV-eat cat NOM bird
'The cat ate the bird.'

b. cine:n=ia, kal**u**'-**un**=ke **(sua)** manu-in.
mother:3.GEN.PSR=TOP love-UV=3.GEN.NSA NOM child-3.GEN.PSR
'As for the mother, she loves her child.'

c. te:=maku **(*sua)** p**u**tu'**u**nu**v**-**un** **(sua)** si'n**u**va=mita.
IPFV=1SG.GEN.NSA NOM) open-UV NOM door=1PL.INCL.GEN.PSR
'I will open our door.'

A summary of the above discussion is given in table 5.

Having briefly discussed the validity of each diagnostic, we now turn to an examination of two constructions that have been treated as verbal in previous studies. The first refers to what Tsuchida (1976) analyzes as a locative focus construction, with the verbal stem marked with *ni-…-an/<in>-an*, and the second refers to what Wu (2006) treats as a B/IF focus marker, with the verbal stem marked with *si-*. We propose that these two constructions are nominal rather than verbal, according to the syntactic tests proposed above. First, when there is a third person genitive pronoun, only *-ini* 'GEN.PSR' is acceptable, as shown in (18).

(18) KANAKANAVU

a. ka:lu i:si=ia **si-**po'ocipi**-in** 'u:ru.
wood this=TOP INSNMLZ-cook-3.GEN.PSR cooked.rice
'As for the wood, s/he used it to cook rice.' (lit. 'As for the wood, (it) was her rice-cooking instrument.')

a′. *ka:lu i:si=ia **si-**po'ocipi**=ke** 'u:ru.
wood this=TOP INSNMLZ-cook=3.GEN.NSA cooked.rice

b. cikiringa cak**u**ran=ia, **ni-**pe-pacal**-an-in** vavulu.
side river=TOP PFV-CAUS-die-LOCNMLZ-3.GEN.PSR wild.pig
'As for the riverside, it is the place where he killed wild pigs.' (lit. 'As for the riverside, (it) his pig-killing place.')

b′. *cikiringa cak**u**ran=ia, **ni-**pe-pacal**-an=ke** vavulu.
side river=TOP PFV-CAUS-die-LOCNMLZ=3.GEN.NSA wild.pig

TABLE 5. DIAGNOSTICS FOR NOUN/VERB DISTINCTION IN KANAKANAVU

	Form		Moving onto Aux/Neg				May be preceded by *sua*
	1st/2nd person pronouns	3rd person pronouns	Auxiliary		Negator		
			1st/2nd	3rd	1st/2nd	3rd	
Noun	same form	-ini	No	No	No		Yes
Verb		=ke	Yes	No	Yes		No

Second, the nominative marker *sua* can appear before *si-* and *ni-…-an*/<*in*>*…-an* constructions, as in (19a,b). It cannot precede a UV-marked verb, as shown in (19c,c′).

(19) KANAKANAVU

a. **sua** **si-**pu'a vʉ:ra i:si=ia vantuku manu=maku.
NOM INSNMLZ-buy rice this=TOP money child=1SG.GEN.PSR
'As for this rice that was bought, the child's money was used.'

b. **sua** **ni-**kalʉ'-a=maku=ia 'a:cu ni-ara-[a]ka.
NOM PFV-like/love-PATNMLZ=1SG.GEN.PSR=TOP PFV-INCH-bad
'As for my lover, s/he is dead.' (lit. 'As for the one I loved, s/he is dead.')

c. ***sua** te:=maku cʉpʉng-ʉn …
NOM IPFV=1SG.GEN.NSA measure-UV

c′. **sua** tia **sieropaca=maku** c<um>a-cʉpʉng.
NOM IPFV use=1SG.GEN.PSR <AV>CaRED-measure
'This is what I used to measure.'

Third, when there is a first or second genitive PSR pronoun, it cannot move to the auxiliary in a *si-* construction, as shown below:

(20) KANAKANAVU

a. *va:tu i:si=ia, te:=**maku** *sieropaca* matupun tacau.
stone this=TOP IPFV=1SG.GEN.NSA INSNMLZ:use throw.AV dog

b. va:tu i:si=ia, tia *sieropaca*=**maku** matupun tacau.
stone this=TOP IPFV INSNMLZ:use=1SG.GEN.PSR throw.AV dog
'As for this stone, it was used by me to throw at the dog.' (lit. 'As for the stone, (it) was my instrument to throw at the dog.')

This test is not applicable with the *ni-…-an* 'PFV.PATNMLZ/PFV.LOCNMZ' construction because it is impossible to have an auxiliary (marking imperfectivity such as *tia* 'IPFV' or progressivity such as *'e:si* 'PROG') occurring before a *ni-…-an*/<*in*>*…-an* nominalized verb, which is perfective in essence.

The contrast between UV clauses and nominalized clauses can be summarized as follows. In UV clauses, 1st and 2nd person NSA pronouns move to the auxiliary (or the negator if there is any) in initial position when they encode a nonsubject actor, but remain in situ if they refer to a possessor. There is a distinction in form between the third person genitive, *=ke*, which is used as a nonsubject actor, and *-ini*, which encodes a possessor. The distribution of the genitive pronoun *=ke* partially follows that of first and second person NSA pronouns. It cannot move onto an initial auxiliary, though it can move to an initial negator. The genitive PSR pronoun *-ini*, on the other hand, always remains in situ and only occurs on nominalized verb forms. The tests we used above are summarized in table 6.

TABLE 6. DISTRIBUTION OF GENITIVE PRONOUNS AND *sua* IN KANAKANAVU WITH VOICE-MARKED AND NOMINALIZED VERB FORMS

	Genitive pronouns		Nominative case marker
	1st/2nd person	3rd person	*sua*
UV-marked verbs	AUX=$PRO_{GEN.NSA}$ V_{UV}	AUX V_{UV}=$PRO_{GEN.NSA}$	***sua** V_{UV}=$PRO_{GEN.NSA}$
Patient / Instrument nominalization	AUX V_{NMLZ}=$PRO_{GEN.PSR}$	AUX V_{NMLZ}-$PRO_{GEN.PSR}$	**sua** V_{NMLZ}=$PRO_{GEN.PSR}$

3. SAAROA. We now turn to an examination of the Saaroa data.

3.1 BRIEF REVIEW AND REASSESSMENT OF FOCUS/VOICE IN SAAROA. We will refer to just three studies on focus/voice in Saaroa, those of Tsuchida (1976) and C. Li (2009, 2010). Pan (2012) is not summarized in this paper, as it largely follows those by Tsuchida and C. Li.

Tsuchida (1976:69ff) analyzes the Saaroa focus system as exhibiting four foci: actor focus (AF), marked by *um-*, goal focus (GF), locative focus (LF), and special focus (SF). GF *-a*, LF *lhi-…-a*, and SF *sa(a)-…-a* are included under nonactor focus (NAF). Illustrative examples are given in (21a–d).

(21) SAAROA

a. **um-a-ala** ka[14] cucu'u na vutukulhu na lhuulhungu
AF-IPFV-take NOM person OBL fish LOC creek
kaaiu na maataata. AF
over.there LOC tomorrow
'The man will catch fish in the creek over there tomorrow.'
(Tsuchida 1976:67)

b. **ulung-a** ka tikuru =isa. PF
take.off-GF.NEUT NOM clothing =her
'She took off her clothing.' (Tsuchida 1976:76)

c. pu-a-ili=cu ka racu'u **lhi-uluvu-a** =isa
return-IPFV-return.AF=already NOM bamboo PFV-by.means.of-LF =by.her
m-uucapi na alhaina =isa. LF
AF.NEUT-drop LOC woman =her
'The bamboo, by means of which she came down to her mother, shrank back again.' (Tsuchida 1976:77)

d. **saa-lhamar-a**=cu =ami ka tapulhacungu. SF
SF-burn-PF.NEUT=already =is said OBL monkey
'The monkey burned it.' (Tsuchida 1976:77)

SF differs from GF in that the agent of the action is expressed by an NP preceded by an OBL marker *ka*, as in (22b), while in GF the agent is expressed by an NP marked by *na* OBL, as in (22a). Tsuchida recognizes six aspects: neutral, imperfective, imperative, perfective, future, and negative.

(22) SAAROA

a. **lhi-ala** na cucu'u ka vutukulhu. GF
PFV-take.GF OBL person NOM fish
'Fish were caught by a man.' (Tsuchida 1976:67)

b. **sa-ali-a** ka cucu'u kana'a ka vutukulhu. SF
SF-take-PF.NEUT OBL person that NOM fish
'The fish was caught by that man.' (Tsuchida 1976:68)

14. In Saaroa, four cases are distinguished—NOM, OBL, LOC, GEN—but only GEN is realized in pronouns (GEN.NSA and GEN.PSR). Nonetheless, we note that *ka*, reported by Tsuchida (1976:67), does not appear in our corpus and never functions as a nominative/oblique case marker. Our informant does not accept its occurrence in any example, but we have kept Tsuchida's (1976) examples as they appear in his study. The occurrence of the marker *a* is optional, and many times it does not carry case; *na* functions both as an oblique and a locative case marker.

C. Li (2009, 2010), on the other hand, posits only three voices, actor voice <*um*> (AV), patient voice *-a* (PV), and locative voice *lhi-…-ana* (LV); he argues against the existence of instrumental/beneficiary voice, and reanalyzes the *sa*(*a*)- prefix as a third person genitive pronoun, cooccurring with the PV marker *-a*.

(23) SAAROA
saa-cavu-a a Pi'i na ka vutukulhu.
3.GEN-wrap-PV GEN Pi'i DEF NOM fish
'Pi'i wrapped the fish.' (C. Li 2010:51)

In our analysis, Saaroa exhibits two voices: actor voice (AV) and undergoer voice (UV). We disagree with C. Li (2010:52) in at least two respects. He distinguishes PV *-ana* and LV *lhi-…-ana* and rejects I/BV. We, on the other hand, assume that UV includes UVP and UVC but not UVL. While UVP verbs are marked by *-a*(*na*), UVC verbs, where the subject is (usually) a transported theme or a beneficiary, but never an instrument, are marked by *-ani*.[15] Consider (24a–c).

(24) SAAROA
a. **t<um>a-tinuunu** a ~~uluku~~ vanukanuka cu-ruvana. AV
<AV>CaRED-weave/embroider Eleke pants IRR-evening
'Eleke will weave/embroider pants this evening.' (Pan 2012:69)

b. cuu=**kita-a**=cu=i sulhat~~u~~? UVP (subject as patient)
2SG.GEN=see-UVP=COS=Q book
'Have you read the book?'

c. **vur-ani**=cu=ailhaku a sulhat~~u~~ ~~uluku~~. UVC (subject treated as a transported theme)
give-UVC=COS=1SG.GEN.NSA book Eleke
'I gave the book to Eleke.'

d. **tinuun-ani** a kana'a=na tikuru! UVC (subject treated as a beneficiary)
weave/embroider-UVC.IMP that=DEF clothes
'Help him/her weave/embroider (this) on the clothes!'

We provide an overview of the voice, mood, and aspect system of Saaroa in table 7, and of nominalization in table 8. Saaroa exhibits two voices, actor voice (AV) and undergoer voice (UV), the latter of which is further divided into UVP and UVC. There is a distinction between the indicative (realis/irrealis)[16] and nonindicative mood (imperative, dependent, negation). As in Kanakanavu, Tsuchida's (1976) LF and C. Li's (2010) LV *lhi-…-ana* markers are analyzed as nominalizing formatives.

Nominalization in Saaroa is quite complex, and some explanation is necessary. Two sets of formatives, location and circumstantial, can convey different meanings depending on the type of verb being nominalized. The formative X-…*-ana* (where X- stands for aspectual/mood distinctions) encodes location. The term "circumstantial," used for lack of a better term, refers to a transported theme that is marked by X-…*-ani*. There are two formatives for instrument nominalization, *si-…-a* and *si-a-*, which occur in complementary distribution. Though we were not able to verify too many classes of verbs, it seems

15. In Tsuchida (1976:71), the suffix *-ani* is treated as an LF imperative marker with verbs unmarked for agent focus in indicative sentences. No further explanation is given as to its function.
16. In the realis, aspectual distinctions (perfective vs. imperfective) are encoded only in AV-marked verbs. UV-marked verbs seem unmarked with respect to aspect.

TABLE 7. A REASSESSMENT OF THE SAAROA VOICE, MOOD, AND ASPECT SYSTEM WITH THE VERB *lumuku* 'PLANT' AS AN EXAMPLE†

		Actor voice		Undergoer voice			
		AV	Example	UVP	Example	UVC	Example
INDICATIVE							
Realis	Perfective	lhi-M-STEM	lhi-l<um>umuku				
	Imperfective‡	M-(C)a-RED-STEM	l<um>a-luu-lumuku	STEM-a(na)	lumuk-a	STEM-ani	lumuk-ani
Irrealis		M-(C)a-STEM	l<um>a-lumuku	—	—	—	—
NONINDICATIVE							
Imperative		M-STEM-a	l<um>umuk-a	STEM-u	limik-u#	STEM-ani	lumuk-ani
Dependent		M-STEM	l<um>umuku	(STEM-i)			
Negation	Imperfective	STEM	lumuku	—	—	—	—
	Irrealis	a-STEM	a-lumuku	—	—	—	—

† Based on Teng and Zeitoun (n.d.).
‡ As will be shown below, the Saaroa imperfective refers specifically to habitual and progressive aspects and only occurs with AV-marked verbs.
# In Saaroa, when a verb, a noun, or a nominalized form ending with *u* is suffixed with -(C)*u*, the preceding vowel becomes *i*.

TABLE 8. A BIRD'S EYE VIEW OF NOMINALIZATION IN SAAROA†

Type of nominalization		Formative	Example	Base
Patient	Realis/ Perfective	lhi-...(-a)	lhi-kali 'what was) dug'	k<um>ali 'dig (AV)'
			lhi-kali-a '(what was) dug'	
	Realis/ Habitual	a-RED-...-a	a-kali-kali-a '(what is often/usually) dug'	
	Irrealis	a-...-a	a-kali-a '(what will be) dug'	
Location	Realis/ Perfective	lhi-...-ana	lhi-cap-ana 'place (where s.t. was) roasted'	c<um>apa 'roast (AV)'
	Realis/ Habitual	ta-...-ana	ta-cap-ana 'place (where s.t. is often/usually) roasted'	
	Irrealis	a-...-ana	a-cap-ana 'place (where s.t. will be) roasted'	
Circumstantial	Realis/ Perfective	lhi-...-ani	lhi-alhav-ani '(what was) brought for s.o'	malhava 'bring (AV)'
	Realis/ Habitual	a-RED-...-ani	a-lha-lha-lhav-ani '(what is) often/usually brought for s.o'	
	Irrealis	a-...-ani	a-lhav-ani '(what will be) brought for s.o'	
Instrument		si-...-a	si-pangulhuv-a 'door'	mangulhuvu 'close (door) (AV)'
		si-a-...	si-a-sulhatu 'pencil'	s<um>ulhatu 'write (AV)'

† Based on Teng and Zeitoun (n.d.).

that verbs marked by <*um*> in the realis take the bimorphemic prefix *si-a-*. A few examples are given below as illustration.

(25) SAAROA
a. Patient nominalization
lhi-kali=isa/a-kali=isa inuru
PFV.PATNMLZ-dig=3.GEN.PSR/IRR-dig[NMLZ]=3.GEN.PSR Inuru
a mairangu=na.
sweet potato=DEF
'What Inuru dug/will dig are sweet potatoes.'

b. Location nominalization
lhi-kali-ana=isa a kana'a=na;
PFV-dig-LOCNMLZ=3.GEN.PSR that=DEF
lhi-kali-ana=ku a kani'i=na.
PFV-dig-LOCNMLZ=1SG.GEN.PSR this=DEF
'That is the place where he dug and this is the place where I dug.'

c. Circumstantial nominalization—beneficiary
a-vura-vur-ani=ku a tautau=na tataraisa.
IRR-RED-give-CIRNMLZ=1SG.GEN.PSR Tautau=DEF thing
'Tautau is the person I often give things to.'

3.2 DISTRIBUTION AND FUNCTION OF PRONOUNS IN PREVIOUS STUDIES IN SAAROA. The table depicting the pronominal system of Saaroa given by Tsuchida (1976:68) has been extensively used and extended in later studies (C. Li 2010 and Pan 2012), and we reproduce it here as table 9, as a starting point for our own discussion. Tsuchida (1976:68) distinguishes two main types of pronouns: those that are independent and those that function as enclitics. While there is only one set of independent pronouns, clitics are divided into three sets: nominative, genitive/agentive, and oblique. Note that his table is not followed by any explanation, except for the fact that the distribution of oblique pronouns is only distinguished in the 3rd person, so it is difficult for us to extrapolate.

C. Li (2010) basically follows Tsuchida's analysis, treating independent pronouns as free pronouns, and enclitic pronouns as bound pronouns. He mentions a number of points that are important (though, as shown below, not always correct). First, he shows that free pronouns behave like full DPs and occur in sentence-initial position as topics, as in (26b). Second, he points out that both nominative and genitive pronouns behave like second-position clitics, since they appear either after the (first) predicate or climb onto the negator, as in (27). Finally and most importantly, he reanalyzes, after Ogawa and Asai (1935:703) and Radetzky (2009),[17] the *sa*(*a*)- prefix as a third person genitive pronoun, cooccurring with the PV marker *-a*, as in (28), and provides a number of arguments to support this claim.

TABLE 9. THE SAAROA PRONOMINAL SYSTEM ACCORDING TO TSUCHIDA (1976:68)

	Independent	Enclitics		
		Nominative	Genitive/ Agentive	Oblique
1SG	ilhaku	=aku	=ku	=na ilhaku
2sg	ilhau	=u	=u	=na ilhau
1PL.EXCL	ilhalhamu	=amu	=lhamu	=na ilhalhamu
1PL.INCL	ilhata	=ita	=ta	=na ilhata
2PL	ilhamu	=mu	=mu	=na ilhamu
3PL	ilhaisa	Ø	=isa	=na ilhaisa

17. Radetzky (2009:1) mentions that "*sa*(*a*)- is a device for overtly mentioning two (or more) 3rd person participants in a clause."

(26) SAAROA
a. **amalhe=ia**, cucu-lha'alua.
Amalhe=TOP person-Saaroa
'As for Amalhe, (he) is a Saaroa.'
b. **ilhaku=ia**, cucu-lha'alua.
1SG.NEUT=TOP person-Saaroa
'As for me, I am a Saaroa.' (C. Li 2010:56)

(27) SAAROA
a. m-a-lhavai=cu=**aku**.
AV-STAT-drunk=COS=1SG.NOM
'I became drunk.'
b. ku=**aku** a-lhava~~u~~.
NEG=1SG.NOM STAT-drunk
'I am not drunk.' (C. Li 2010:57)

(28) SAAROA
sa-anu-*a* ka mamaini ka vutukulhu.
3.GEN-eat-PV OBL child NOM fish
'The fish was eaten by the child.'
(P. Li 1997:281, cited in C. Li 2009:176; 2010:50)

To some extent, Pan (2012:258ff) follows Tsuchida (1976) and C. Li (2010), but makes the following three amendments. First, he treats nominative pronouns as clitics and genitive pronouns as affixes. He goes a step further in reanalyzing (without providing any strong evidence) the *sa*(*a*)- prefix and the -*isa* suffix as agreement markers (2012:212ff, 232–34). Second, he treats the demonstrative pronouns *kana'a=na* 'that' and *lhakana'a=na* 'those' as third person independent pronouns. Third, he recognizes another set of free pronouns, absolute possessive, which are made up of a form *isikana* to which are suffixed the genitive pronominal forms: *isikana-ku* 'mine', *isikana-u* 'yours (singular)', *isikana-isa* 'his/hers/theirs', *isikana-ta* 'ours (inclusive)', *isikana-lhamu* 'our (exclusive)', *isikana-mu* 'yours (plural)'. He provides examples that illustrate the distribution of each set of pronouns, and though this listing seems exhaustive, it actually does not offer crucial data that would have revealed the need to carefully (re-)analyze voice as opposed to nominalization in dealing with the functions of these different sets of pronouns.

We now turn to a reassessment of the pronominal system of Saaroa. Like Tsuchida (1976), C. Li (2010), and Pan (2012), we believe that Saaroa distinguishes two main types of pronouns: independent and clitic pronouns. We follow Pan (2012) in recognizing a set of free possessive pronouns as well. See table 10.

A number of points are made below that account for our analysis of the Saaroa pronominal system. With respect to previous analyses, we note that there is a distinction between topic and oblique pronouns. Topic pronouns always occur in initial position (29a,b) and are never preceded by *na* 'OBL' (29c). Oblique pronouns correspond to the patient in AV clauses (30a), and can optionally be preceded by *na* (30b). Their position in the sentence is also constrained, as shown in (30c,c′); that is, oblique pronouns must occur next to the verb that subcategorizes for them.

TABLE 10. A REASSESSMENT OF THE SAAROA PRONOMINAL SYSTEM

	Independent		Clitics			
	Topic	Absolute possessive	Nominative	Oblique	Genitive	
					Nonsubject actor	Possessor
1SG	ilhaku	isikana=ku	=aku	=(na)ilhaku†	=ailhaku	=ku
2SG	ilhau	isikana=u	=u (~ =au) =ilhau‡	=(na)ilhau	cuu=	=u
3SG	(kana'a=na)#	isikana=isa	Ø	isana (kana'a=na)	saa=	=isa
1PL.EXCL	ilhalhamu	isikana=lhamu	=amu	=(na)ilhalhamu	=ailhalhamu	=lhamu
1PL.INCL	ilhata	isikana=ta	=(i)ta	=(na)ilhata	=ailhata	=ta
2PL	ilhamu	isikana=mu	=mu =ilhamu	=(na)ilhamu	cumu=	=mu
3PL	(kana'a=na)	isikana=isa††	Ø	isana (kana'a=na)	saa=	=isa

† As we show in (28), *=na* is actually optional now in the oblique form.

‡ To our knowledge, *=au* and *=ilhau* as nominative enclitics have never been reported in earlier studies. They occur in complementary distribution with *=u* '2SG.NOM'. The pronominal form *=au* is found in negative clauses, as in (a), and *=ilhau* is found in imperative sentences, as in (b). The pronoun *=u* is used elsewhere.

(a) ku=**au** tin~~uu~~nu tikuru(=na).
NEG=2SG.NOM weave/embroider[AV] clothes(=DEF)
'You did not weave/embroider clothes.'

(b) cu=mau=**ilhau** l<~~um~~>~~um~~~~u~~k-a racu'u!
go=?=2SG.NOM <AV>plant-IMP bamboo
'You go and plant bamboo!'

\# We expected the singular forms *ilhaisa* and (*na*) *ilhaisa* and their plural counterparts *ilhalhisa* and (*na*) *ilhalhisa* to be used as third person pronouns and function as topic and oblique. However, that is not the case, and we are unable to determine their usage and their function at this point.

†† There is no plural pronoun per se for the possessive, nominative, and genitive (nonsubject actor and possessor) sets. Plurality is expressed through a plural coreferent.

(29) SAAROA

a. **ilhau=**ia pakisia'a, **ilhaku=**ia lha'alua.
2SG.TOP=TOP plain 1SG.TOP=TOP Saaroa
'You are Chinese and I am Saaroa.'

b. *pakisia'a **ilhau**, lha'alua **ilhaku**.
plain 2SG.TOP Saaroa 1SG.TOP

c. ***na ilhau=**ia pakisia'a, **na ilhaku=**ia lha'alua.
OBL 2SG.TOP=TOP plain OBL 1SG.TOP=TOP Saaroa

(30) SAAROA

a. marapilhi=u **Ø =ilhaku** t<um>in~~uu~~nu tikuru.
for.AV=2SG.NOM Ø =1SG.OBL <AV>weave/embroider clothes
'You wove/embroidered clothes for me.'

b. marapilhi=u **=nailhaku** t<um>in~~uu~~nu tikuru.
for.AV=2SG.NOM =1SG.OBL <AV>weave/embroider clothes
'You wove/embroidered clothes for me.'

c. *marapilhi=u t<um>in~~uu~~nu **=nailhaku** tikuru.
for.AV=2SG.NOM <AV>weave/embroider =1SG.OBL clothes

c′. *marapilhi=u t<um>in~~uu~~nu tikuru **=nailhaku**.
for.AV=2SG.NOM <AV>weave/embroider clothes =1SG.OBL

We observe an asymmetry in form between first person genitive NSA pronouns, which are treated as enclitics,[18] and second and third person genitive NSA pronouns, which consist of a partial set of proclitics, illustrated in (31a–c). This paradigm has, to our knowledge, never been reported before.

(31) SAAROA

a. tin~~uu~~n-a=cu **=ailhaku** a ki-ruvana vanukanuka.
weave/embroider-UVP=COS =1SG.GEN.NSA REAL-evening trousers
'Last night I wove/embroidered trousers.'

b. **cuu=**tin~~uu~~n-a=cu a ki-ruvana vanukanuka.
2SG.GEN.NSA=weave/embroider-UVP=COS REAL-evening trousers
'Last night you wove/embroidered trousers.'

c. **saa=**tin~~uu~~n-a=cu a ki-ruvana vanukanuka.
3.GEN.NSA=weave/embroider-UVP=COS REAL-evening trousers
'Last night s/he wove/embroidered trousers.'

We have found no proclitic form for first person genitive NSA pronouns, nor could we elicit enclitic genitive NSA forms for second and third persons. This is demonstrated by the ungrammaticality of (32a,b).

(32) SAAROA

a. ***ku=**tin~~uu~~n-a=cu a ki-ruvana vanukanuka.
1SG=weave/embroider-UVP=COS REAL-evening trousers

b. *tin~~uu~~n-a=cu **=ailhau** a ki-ruvana vanukanuka.
weave/embroider-UVP=COS =2SG REAL-evening trousers

We treat both first person enclitics and second and third person proclitics as genitive NSA pronouns because they encode a nonactor subject in UV clauses. We make a further distinction between genitive pronouns and possessive pronouns, which refer specifically to the possessor, as shown in (33). Examples of first, second, and third person possessive pronouns are given in (33a–c), respectively, and show that a possessive pronoun is always attached to a noun, while a nonactor subject pronoun never is (see the ungrammaticality of [33a′–c′]).

(33) SAAROA

a. t<um>a-tii-tin~~uunu~~ a ina**=ku**=na vanukanuka.
<AV>CaRED-RED-weave/embroider mother=1SG.GEN.PSR=DEF trousers
'My mother is weaving/embroidering pants.'

a′. *t<um>a-tii-tin~~uunu~~ a ina'a=na **=ailhaku** vanukanuka.
<AV>CaRED-RED-weave/embroider mother =DEF =1SG.GEN.NSA trousers

b. upiaini=cu kani'i a cailhi**=u**?
how.much/many=COS this/now year=2SG.GEN.PSR
'How old are you now?' (lit. 'How many now your years?')
(Pan 2012:109)

b′. *upiaini=cu kani'i a **cuu=**cailhi?
how.much/many=COS this/now 2SG.GEN.NSA=year

18. We treat first person (singular/plural) pronouns as second-position clitics, since they cannot move in the sentence and need to attach to the verb phrase.

c. lhi-al-ana=ku a palhivinga**=isa** kana'a=na.
PFV-take-LOCNMLZ=1SG.GEN.PSR stuff=3.GEN.PSR that=DEF
'I took his stuff (from him).'

c′. *lhi-al-ana=ku a **saa**=palhivinga kana'a=na.
PFV-take-LOCNMLZ=1SG.GEN.PSR 3.GEN.NSA=thing that=DEF

These two sets were undivided in earlier studies, but we will show in table 13 (at the end of 3.3) that they are distinct in all forms. Besides, they cannot be used one for the other. Consider (34a,a′) and (34b,b′).

(34) SAAROA

a. **cuu**=tin~~uu~~n-a=cu a kani'i alulhi=na.
2SG.GEN.NSA=weave/embroider-UV=COS this traditional skirt (for men)=DEF
'You wove/embroidered this traditional skirt.'

a′. *tin~~uu~~n-a=cu**=u** a kani'i alulhi=na.
weave/embroider-UV=COS=2SG.GEN.PSR this traditional skirt (for men)=DEF

b. um-ala a ina**=u** na tikuru t<um>in~~uunu~~.
AV-take mother=2SG.GEN.PSR clothes <AV>weave/embroider
'Your mother took the clothes to weave/embroider them.'

b′. *um-ala a **cuu**=ina na tikuru t<um>in~~uunu~~.
AV-take 2SG.GEN.NSA=mother clothes <AV>weave/embroider

3.3 THE NOUN-VERB DISTINCTION IN SAAROA. The distinction we make between NSA and PSR pronouns also allows us to further identify nouns as opposed to verbs in Saaroa. We have shown above that genitive NSA clitics occur in UVP clauses. They never cooccur with base forms affixed by *lhi-…-a*(*na*), *lhi-…-ani*, or *si-*, but genitive PSR clitics do. This asymmetry allows us to treat these forms as nominalizing formatives.

(35) SAAROA

a. **saa**=tin~~uu~~n-*a*=cu=i ki-ruvana tikuru?
3.GEN.NSA=weave/embroider-PV=COS=Q REAL-evening clothes
'Did s/he weave/embroider clothes last night?'

a′. ***saa**=*lhi*-tin~~uu~~n-*a*=cu=i ki-ruvana tikuru?
3.GEN.NSA=PFV-weave/embroider-PATNMLZ=COS=Q REAL-evening clothes

a″. *lhi*-tin~~uu~~n-*a*=c=**isa**=i ki-ruvana tikuru?
PFV-weave/embroider-PATNMLZ=COS=3.GEN.PSR=Q REAL-evening clothes
'Did s/he weave/embroider clothes last night?'

b. vur-*ani*=cu **=ailhaku** a ~~ulukuu~~=na sulhat~~u~~.
give-UVC=COS =1SG.GEN.NSA Eleke=DEF book
'I gave the book to Eleke.' (lit. 'Eleke is the person I gave the book to.')

b′. ****lhi*-vur-*ani*=cu **=ailhaku** a sulhat~~u~~ ~~ulukuu~~.
PFV-give-CIRNMLZ=COS =1SG.GEN.NSA book Eleke

b″. *lhi*-vur-*ani*=cu**=ku** a ~~ulukuu~~=na sulhat~~u~~.
PFV-give-CIRNMLZ=COS=1SG.GEN.PSR Eleke=DEF book
'I gave the book to Eleke.'

c. *ki-a-lha-lhamu=aku kana *si*takuamiamia **=ailhalhamu**
tell/talk-IRR-RED-talk=1SG.NOM fiLL INSNMLZ.work =1PL.EXCL.GEN.NSA
kiariari ...
past

c′. ki-a-lha-lhamu=aku kana *si*takuamiamia=**lhamu** kiariari ...
tell/talk-IRR-RED-talk=1SG.NOM fiLL INSNMLZ.work=1PL.EXCL.GEN.PSR past
'I am going to talk about our life in the past ...' (based on Pan 2012:367)

Note, in passing, that while genitive pronouns encoding nonsubject actors must obligatorily occur (36a,a′), those that encode possessors need not (36b,b′).

(36) SAAROA

a. **saa**=tin~~uu~~n-a=cu=i ki-ruvana tikuru?
3.GEN.NSA=weave/embroider-UVP=COS=Q REAL-evening clothes
'Did s/he weave/embroider clothes last night?'

a′. ***Ø**=tin~~uu~~n-a=cu=i ki-ruvana tikuru?
Ø=weave/embroider-UVP=COS=Q REAL-evening clothes

b. lhi-tin~~uu~~n-a=c=**isa**=i ki-ruvana tikuru?
PFV-weave/embroider-PATNMLZ=COS=3.GEN.PSR=Q REAL-evening clothes
'Did s/he weave/embroider clothes yesterday?'

b′. lhi-tin~~uu~~n-a=cu=**Ø**=i ki-ruvana tikuru?
PFV-weave/embroider-PATNMLZ=COS=Ø=Q REAL-evening clothes
'Were the clothes woven/embroidered yesterday?'

Table 11 summarizes the distribution of the two sets of genitive pronouns (nonsubject actor and possessor).

Based on this distinction, we are also able to further reassess constructions that were wrongly analyzed. C. Li (2010) points out that nominative and genitive pronouns behave like second-position clitics, but this statement is only partially correct. As shown below, only nominative pronouns can move to the negator. C. Li's (2010) analysis of *a-kita=ku* as a PV form followed by a genitive form is misleading and actually erroneous. First, though the prefix *a-* marks irrealis, it never encodes UVP. Rather, the form is nominalized. This becomes clear when one further compares (37) with (38), where a verb ending with *ᵾ* (rather than *a*) is used instead. Note that, in (37), the first line of glosses is from C. Li (2010:57) and the second represents our reanalysis of the data.

TABLE 11. DISTRIBUTION OF THE TWO SETS OF GENITIVE PRONOUNS IN SAAROA WITH VOICE-MARKED AND NOMINALIZED VERB FORMS

		UV-marked verbs	Patient / Instrument nominalization
Genitive	1st person	V-a(na)/ani$_{UV}$ a ilhaku/ilhata/ilhamu$_{GEN}$	—
	2nd /3rd person	cuu=/cumu=/saa=$_{GEN}$V-a(na)$_{UVP}$/ani$_{UVC}$	—
Possessor		—	lhi-V-a(na)$_{PATNMLZ}$/-ani$_{INSNMLZ}$=ku/ =u/=isa/=ita/=lhamu/=mu$_{GEN}$

(37) SAAROA

a. a-kita**=ku** a kani'i sulhat~~u~~=na.
C. Li: IRR.PV-see=1SG.GEN NOM this book PTC
ST/EZ: IRR-see[PATNMLZ]=1SG.GEN.PSR this book=DEF
'I will read this book.' (lit. 'This book is what I will read.')

b. ku=na**=(a)ku** a-kita a kani'i sulhat~~u~~=na.
C. Li: NEG=still=1SG.GEN IRR.PV-see NOM this book PTC
ST/EZ: NEG=still=1SG.NOM IRR-see[AV] this book=DEF
'I will not read this book.' (C. Li 2010:57)[19]

(38) SAAROA

a. a-tin~~uun~~-a**=ku** maataata tikuru.
IRR-weave/embroider-PATNMLZ=1SG.GEN tomorrow clothes
'I will weave/embroider clothes tomorrow.'

b. ku=na**=(a)ku** **a-**tin~~uunu~~ tikuru.
NEG=still=1SG.NOM IRR-weave/embroider[AV] clothes
'I have not woven/embroidered clothes yet.'

The above data show that only verbs marked as AV can occur in negative clauses. In other words, verbs marked as UV never occur in such clauses, and this constraint prevents the occurrence of genitive nonsubject actor pronouns. This assumption is confirmed by the ungrammaticality of (39a), where the negator *kuu* is followed by a UV-marked verb to which is cliticized a genitive NSA pronoun. The change in construction and the use of an AV-marked verb with the moving onto the negator of the nominative pronoun renders the sentence grammatical (39b).

(39) SAAROA

a. *kuu a-l~~u~~m~~u~~k-a **=ailhaku** cu-ruvana mairang~~u~~=na.
NEG IRR-plant-UVP =1SG.GEN.NSA IRR-evening sweet.potatoes=DEF
Intended: 'I will not plant the sweet potatoes tomorrow evening.'

b. ku=**aku** a-l~~u~~m~~uku~~ cu-ruvana mairang~~u~~=na.
NEG=1SG.NOM IRR-plant[AV] IRR-evening sweet.potatoes=DEF
'I will not plant the sweet potatoes tomorrow evening.'

The claim that UV-marked verbs are disallowed in negative clauses headed by *kuu* is further confirmed by the fact that there is no clitic movement when the verb is marked by *lhi-…-a*(*na*) 'PFV.PATNMLZ' or *lhi-…-ani* 'PFV.CIRNMLZ', as shown in (40) and (41).

(40) SAAROA

a. *lhi*-kita**=ku** a kani'i sulhat~~u~~=na.
PFV-see[PATNMLZ]=1SG.GEN.PSR this book=DEF
'I read this book.' (lit.: 'My reading was this book.')

b. kuu *lhi*-kita**=ku** a kani'i sulhat~~u~~=na.
NEG PFV-see[PATNMLZ]=1SG.GEN.PSR this book=DEF
'I did not read this book.' (lit.: 'My reading was not this book.')

19. We have changed the last part of C. Li's (2010) example, whereby the head noun 'book' is followed by a ligature and the demonstrative 'this'—cf. *a sulhat~~u~~ a kani'i na*—as our informant did not accept this example as it is. This does not have any impact on the first part of the example, which is based on C. Li (2010).

but

c. *ku=**ku** *lhi*-kita a kani'i sulhat~~u~~=na.
NEG=1SG.GEN.PSR PFV-see[PATNMLZ] this book=DEF

and

c′. ku=**aku** *lhi*-k<*um*>ita[20] kani'i sulhat~~u~~=na.
NEG=1SG.NOM PFV-<AV>see this book=DEF
'I did not read this book.'

(41) SAAROA

a. *lhi*-al-*ani*=**ku** a kana'a=na camai.
PFV-take-CIRNMLZ=1SG.GEN.PSR that=DEF side.dish
'I gave a side dish to that (person).' (lit. 'I took a side dish for that person.')

b. kuu *lhi*-al-*ani*=**ku** a kana'a=na camai.
NEG PFV-take-CIRNMLZ=1SG.GEN.PSR that=DEF side dish
'I did not give a side dish to that (person).'

but

c. *ku=**ku** *lhi*-al-*ani* a kana'a=na camai.
NEG=1SG.GEN.PSR PFV-take-CIRNMLZ that=DEF side.dish

In other words, genitive pronouns never occur on the negator in Saaroa and we explain this by assuming that the verb is nominalized. Examples (39)–(41) can be schematized as table 12.

TABLE 12. DISTRIBUTION OF SAAROA PRONOUNS IN NEGATIVE CLAUSES

AV-marked verbs	ku_{NEG}=Pro_{NOM} V_{AV}
UV-marked verbs	—
Patient / Instrument nominalization	ku_{NEG} V_{NMLZ}=Pro_{GEN}

We can conclude that when the infix <*um*> (and its allomorphs) cooccurs (in affirmative or negative clauses) with the prefix *lhi-* (a reflex form of Proto-Austronesian *<in>), the verb can be analyzed as marked as AV. When the prefix *lhi-* cooccurs with the suffixes *-a*(*na*) and *-ani*, on the other hand, the verb is nominalized.

(42) SAAROA

a. AV affirmative clause
lhi-um-arumi=aku maini tak~~umunu~~ t<um>in~~uunu~~ tikuru.
PFV-AV-use=1SG.NOM small needle <AV>weave/embroider clothes
'I used a small needle to weave/embroider the clothes.'

b. AV negative clause
ku=**aku** **lhi-l<um>um~~u~~ku** mairang~~u~~.
NEG=1SG.NOM PFV-<AV>plant sweet.potato
'I never planted sweet potatoes.'

20. A negated verb usually occurs in its bare form (e.g., *kita* 'see'), but is marked as AV when prefixed by *lhi-* 'PFV'.

c. Patient nominalization
lhi-tinuun-a=c=isa likusu a tavalhilha=na.
PFV-weave/embroider-PATNMLZ=COS=3.GEN.PSR back flower=DEF
'S/he wove/embroidered flowers on (the) back (of his clothes).'

d. Circumstantial nominalization
lhi-vur-ani=cu=ku a ulukᵾ sulhatᵾ.
PFV-give-CIRNMLZ=COS=1SG.GEN.PSR Eleke book
'I gave the book to Eleke.'

We can summarize briefly the distribution of Saaroa pronouns as follows. In nominal(ized) clauses, only possessor enclitics can be used. In AV clauses, first and second person nominative enclitics occur on the verb in affirmative sentences and on the negator in negative sentences. Third person participants are usually covert—there are no third person enclitic nominative forms—but they may be encoded through independent forms. In UV clauses, first person participants are encoded through genitive NSA enclitics. Second and third person pronouns are manifested through genitive NSA proclitics. UV-marked verbs are barred from negative clauses. The distribution of Saaroa pronouns is summarized in table 13.

TABLE 13. DISTRIBUTION OF SAAROA PRONOUNS

		1st person pronouns	2nd person pronouns	3rd person pronouns
Noun and nominalized verb forms		Possessor enclitics		
Affirmative	AV	Nominative enclitics		Independent nominative pronouns
	UV	Genitive enclitics	Genitive proclitics	
Negative	AV	Nominative enclitics moving to the negator		Independent nominative pronouns
	UV	—		

4. CONCLUSION. We have provided a reassessment of the pronominal systems of Kanakanavu and Saaroa that allows us to distinguish two sets of genitive pronouns, the first encoding nonactor subjects and the second possessors. Their distributional properties vary between the two languages, but discrepancies between 1st/2nd vs. 3rd person pronouns in Kanakanavu and 1st vs. 2nd person pronouns in Saaroa allow us to make a distinction between voice and nominalization. See table 14.

Our reexamination of the data has certain consequences. On the synchronic level, we have been able to identify proclitics in Saaroa (the paradigm presents gaps that will need to be accounted for in the future). We have also demonstrated that, in the past, different verbal forms have been wrongly amalgamated and analyzed as voice markers. The distribution and morphosyntactic properties of pronouns in both Saaroa and Kanakanavu have helped us identify and distinguish quite easily voice markers and nominalizing formatives.

On the diachronic level, our analysis shows that Kanakanavu and Saaroa have only partially reanalyzed Ross's (2009, 2012) second generation affixes. In Kanakanavu, the reflex of *-en was reanalyzed as a UV marker and the reflex of *<in> appears in verbal (AV/UV) and nominal constructions. Except for the reflex of *<in> used in AV clauses (as well as in nominal constructions), Saaroa reanalyzed Ross's (2009, 2012) second gen-

eration suffixes even more partially than Kanakanavu. In both languages, the reflexes of *-an and *Si- are still (and only) used as nominalizers and were never reinterpreted as verbal affixes. These findings are, for the sake of clarity, summarized in table 15 and presented in more detail in Zeitoun and Teng (2016).

TABLE 14. COMPARISON OF THE DIFFERENCES BETWEEN THE TWO SETS OF GENITIVE PRONOUNS IN KANAKANAVU AND SAAROA

Language / Person		Kanakanavu		Saaroa		
		1st/2nd	3rd	1st	2nd/3rd	
					2nd	3rd
AV clauses	Affirmative	AUX=PRO_{NOM} V_{AV}	AUX V_{AV} Ø	V_{AV}=PRO_{NOM}		V_{AV} Ø
	Negative	NEG=$PRO_{GEN.NSA}$ V_{AV}	NEG V_{AV} Ø	NEG=$_{NOM}$ V_{AV}		
UV clauses	Affirmative	AUX=$PRO_{GEN.NSA}$ V_{UV}	AUX V_{UV}=$PRO_{GEN.NSA}$	V_{UV}=$PRO_{GEN.NSA}$		PRO $_{GEN.NSA}$=V_{UV}
	Negative	NEG=$PRO_{GEN.NSA}$ V_{UV}	NEG=$PRO_{GEN.NSA}$ V_{UV}	(NEG) V_{NMLZ}=$PRO_{GEN.PSR}$		
Patient / Instrument nominalization		AUX V_{NMLZ} =$PRO_{GEN.PSR}$	AUX V_{NMLZ}-$PRO_{GEN.PSR}$			

TABLE 15. AN OVERVIEW OF THE FUNCTION OF SECOND GENERATION AFFIXES IN PROTO-AUSTRONESIAN, KANAKANAVU, AND SAAROA†

	*<in>	*-en	*-an	*Si-/*Sa-
Proto-Austronesian	N	N	N	N
Kanakanavu	$V_{AV/UV}$/N	(N)‡/V	N	N
Saaroa	V_{AV}/N	—	N	N

† Based on Zeitoun and Teng (2016).

‡ Wei-chen Huang kindly pointed out to us one occurrence of *-un* as patient nominalization: *cuvung-un* 'confluence of two rivers' (Tsuchida 1976:215). Though we have tried, we have found no other occurrence and believe that this is a nonproductive nominalization process.

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