

ON THE SPECIAL STATUS OF INSTRUMENTALS

Cathryn Donohue[†] and Mark Donohue[‡]

[†]Stanford University/University of California, Santa Cruz

and [‡]National University of Singapore

Proceedings of the LFG04 Conference

University of Canterbury

Miriam Butt and Tracy Holloway King (Editors)

2004

CSLI Publications

<http://csli-publications.stanford.edu/>

Abstract:

In this paper we investigate the status of instrumental adjuncts in the clause. We present data from three Austronesian and three non-Austronesian (Papuan) languages and show that instrumental arguments are grammatically privileged compared to other non-terms, sharing grammatical properties with terms as well as non-terms. We also show that instruments that are not integral to the event do not have the same privileged status. We argue that this difference in behavior results from the fact that some instrumental arguments are integral to the event, and must thus be included in a verb's lexical conceptual structure, while others are truly adjuncts.

1. Introduction

Optional non-core arguments, or *adjuncts*, are admissible in a given clause by their semantic felicitousness (and the discourse requirements). These adjuncts are often described in terms of their semantic roles (or thematic/theta roles), such as recipient, instrumental, location. It is axiomatic that the grammatical constructions to which adjuncts have access are different to those which terms in general, and subjects in particular, control. For instance, relativization is often determined by grammatical function, with subjects being more privileged than non-subjects, and adjuncts the least privileged of all. In order to capture these ranked effects, different hierarchies have been proposed in which the thematic roles are listed in a total order. Some key assumptions about the meaning of hierarchical organisation, as opposed to simple lists, are outlined in (1).

(1) **A > B > C > D** implies (a) and/or (b), and that (c) is never the case:

a. $[_z [_y [_x A] > B] > C] > D$

There is a set of properties/constructions/behaviors, x , for which A shows more privileged behavior in terms of access; a second set of properties, y , are accessible to B, but they are still available to A; a third set of properties, z , are accessible to C; both A and B share these properties as well.

b. $A > [_z B > [_y C > [_x D]]]$

There is a set of properties/constructions/behaviors, x , for which only D is eligible; a second set of properties, y , are accessible to C, but they are also available to D; a third set of properties, z , are accessible to B; both D and C share these properties as well.

c. $[_x A] > [_y B > [_x C]] > [_z D]$

A 'central' element (C) shows greater syntactic privileges than the periphery; and in which the spread of properties is not contiguous (x).

The behavior in (1a) can be illustrated with the grammatical function hierarchy: access to relativization in different languages can be restricted to set x (subject only), or set y (subjects and objects), or set z (subjects, objects, and obliques), or simply unrestricted, but it does not ever show the sort of behavior shown in (1c), with obliques being more privileged than objects, for instance. The inverse hierarchy in (1b) is shown by the use of prepositions in English: prepositions are obligatory on all non-temporal adjuncts and obliques, and are found on some objects, but are never found with subjects. In a ground-breaking study of applicatives, Bresnan and Kanerva (1989) proposed the following ordering of thematic roles:

(2) agent > beneficiary > recipient/experiencer > instrument > theme/patient > locative

While there has been some disagreement about the relative ordering of some of the members in the hierarchy, this is indicative of what is now the assumed order of thematic roles. In Lexical Functional Grammar (Bresnan 2001, Dalrymple 2001) the agents and patient/theme arguments are mapped onto the SUBJ and OBJ grammatical functions by virtue of being featurally marked as [+r(estricted)] and [+o(b)jective]. Of the remaining thematic roles, instrumental is still roughly in the middle of the hierarchy. It is thus unexpected that instrumentals appear to have special grammatical status, sharing many properties with terms which are not shared with other arguments with different thematic roles.

In this paper, we present data from six languages of the Pacific – three Austronesian and three non-Austronesian (Papuan), illustrating the special grammatical status of instrumentals in terms of word order, case marking and access to syntactic constructions such as relativisation and voice alternations. We propose that instrumentals are singled out above other thematic roles for semantic reasons. As ‘intermediary agents’ (see, e.g., Marantz 1984), their role in an event is integral, even if it need not be overtly mentioned, whereas other thematic roles do not represent roles without which the predicate would not make sense. That is, a cutting event must have an implement which is responsible for the cutting, whereas a walking event need not imply a goal in order to be coherent. This suggests, we argue, that the instrumental is in the lexical conceptual structure (LCS) of the verb which results in its special grammatical status. This analysis implies that the thematic hierarchy has a limited application within the grammar, as other factors will determine involvement in grammatical constructions as well, such as the roles presence in the LCS.

2. Austronesian evidence

In this section, we examine evidence from three western Austronesian languages, each of which shows unusual properties associated with participants bearing instrumental roles. One of the crucial diagnostics of term/non-term status in these languages is word order: V O S OBL/ADJNT, and in *Tukang Besi* and Tagalog case marking also plays a role.

3.1 TUKANG BESI

Tukang Besi (Donohue 1999) uses the following nominal cases:

na nominative, for the grammatical subject;

nu genitive, for nominal modifiers;

i (irrealis) / *di* (realis) oblique, for non-terms where they are not marked with a more specialized preposition or serial verb construction; and

te, appearing in all other circumstances.

In this section we will look at the following grammatical constructions to show that instrumentals have special status: relativization, applicatives and case marking.

The most basic relativization strategy involves fronting the relativized nominal and affixing morphology, cognate with the well-known Philippine voice morphology, to the verb to indicate the syntactic status of the relative clause head as S or A (using <um>) or P (using *i-/di-/ni-*).¹ The following sentences show relative clauses as part of cleft constructions. While the verb shows prefixal agreement with the S/A argument when it is the head of a main clause, these prefixes are not found on verbs in relative clauses. A relative clause headed by an S or A shows fully verbal characteristics apart from the agreement prefixes, whereas a relative clause headed by a P is largely nominal in character, with genitive case rather than the core case *te* on all arguments.

*Plain clause predicated with the verb 'fetch'*²

- (3) a. No-ala te uwe (ako te embere/ kene embere).
 3R-fetch CORE water INSTR CORE bucket INSTR bucket
 'They fetched water with a bucket.'

Relative clause with A as head

- b. Te amai na [RC <um>ala te uwe kene embere].
 CORE 3PL NOM fetch.SI CORE water INSTR bucket
 'It was them who fetched water with a bucket.'

Relative clause with P as head

- c. Te uwe na [RC i-ala=no kene embere].
 CORE water NOM PP-fetch=3GEN INSTR bucket
 'It was water that they fetched with a bucket.'

Plain clause predicated with the verb 'go'

- (4) a. No-wila na amai kua pante.
 3R-go NOM 3PL ALL beach
 'They went to the beach.'

Relative clause with S as head

- b. Te amai na [RC w<um>ila kua pante].
 CORE 3PL NOM fetch.SI ALL beach
 'It was them who went to the beach.'

Relativizing on non-terms is only possible if applicative morphology is present, making the original non-term the P, the object of the clause. In (5a) the applicative =*api* licenses the location as P, which can then be relativized with *i-*. In (5b) we can see that it is also possible for such an

¹ The terms A, P and S refer to the most agent-like in a transitive clause, most patient-like in a transitive clause and sole actant in an intransitive clause respectively. See Comrie (1978) for more explicit definitions.

² The following abbreviations have been used, in addition to 1, 2 and 3 representing person: ALL: allative, APPL: applicative, AV: S,A voice (± active), CAUS: causative, COM: comitative, CORE: core, DAT: dative, DET: determiner, F: feminine, FACT: factitive, GEN: genitive, INSTR: instrumental, M: masculine, NOM: nominative, OBL: oblique, P: P clitic, PASS: passive, PF: perfective, PL: plural, PV: P voice (± inverse), R: realis, SG: singular, SI: S,A infix.

applicative object to be further passivised with *to-*, and then to head an S/A relative clause with *<um>*.

Location as head of relative clause: verb affixed with locative applicative

- (5) a. Te embere na [RC **i-tau-pi**=no nu uwe].
 CORE water NOM PP-place-APPL=3GEN GEN water
 ‘It was the bucket that they put the water in.’

Location as head of relative clause: verb affixed with locative applicative

- b. Te embere na [RC **t<um>o-tau-pi** te uwe].
 CORE water NOM PASS<SI>-place-APPL CORE water
 ‘It was the bucket that the water was put in.’

Additional examples of applicative relative clauses are shown in (6) and (7), with beneficiary and instrumental arguments respectively.

Beneficiary as head of relative clause: verb affixed with general applicative

- (6) Te amai na [RC **i-ala-ako**=no nu uwe].
 CORE 3PL NOM PP-fetch-APPL=3GEN GEN water
 ‘It was them who they fetched water for.’

Instrument as head of relative clause: verb affixed with general applicative

- (7) Te embere na [RC **i-ala-ako**=no nu uwe].
 CORE bucket NOM PP-fetch-APPL=3GEN GEN water
 ‘It was a bucket that they fetched water with.’

In addition to the applicative construction shown in (5)–(7), there is another relativizing option which requires no relativizing morphology when an instrument is relativized, as shown in (8).

Instrument as head of bare relative clause: unaffixed verb root used

- (8) Te embere na [RC ala te uwe].
 CORE water NOM fetch CORE water
 ‘It was the bucket that (they) fetched water with.’

An attempt to relativize on the locative or beneficiary adjuncts with the bare relative clause strategy is ungrammatical, as seen in (9). Similarly, this bare relativization strategy is not available for terms of any semantic role, unless they are instruments; some sample ungrammatical terms are shown in (10). The bare verbal construction seen in (8) is only available for instrumentals, regardless of their termhood.

Locative or Beneficiary ungrammatical as head of bare relative clause

- (9) a. *te embere na [RC tau(-pi) te uwe].
 CORE water NOM place-APPL CORE water
 ‘It was the bucket that they put the water in.’
 b. *te amai na [RC ala te uwe].
 CORE water NOM fetch CORE water
 ‘It was them who they fetched water for.’

Non-instrument term ungrammatical as head of bare relative clause: agent, theme, beneficiary, recipient, experiencer

- (10) a. * te amai na [RC ala te uwe].
 CORE 3PL NOM fetch CORE water
 ‘It was them who fetched the water.’ (compare with (3b))
- b. * te uwe na [RC ala (te amai)].
 CORE water NOM fetch CORE 3PL
 ‘It was the water that they fetched.’ (compare with (3c))
- c. * te amai na [RC hoti (te ikita)].
 CORE water NOM donate.items.charitably CORE 1PL
 ‘It was them who (we) donated (food and clothing) to.’
- d. * te amai na [RC hu’u te embere (te ikita)].
 CORE 3PL NOM give CORE bucket CORE 1PL
 ‘It was them who (we) gave the bucket to.’
- e. * te amai na [RC po-ilu te ikita].
 CORE 3PL NOM REC-lust CORE 1PL
 ‘It was them who loved us.’

3.1.1 Passives

Further evidence that instruments have a special grammatical status can be found in passive constructions. Passives with *to-* do not permit agents to be overt in the clause; if the agent is instrumental, however, it may appear. In (11) and (12) we can see a ‘normal’ clause and its passive equivalent. In the passive version the A may not be expressed by any means.

- (11) No-hoko-mate=‘e=mo te amai na mo’ane.
 3R-FACT-die=3P=PF CORE 3PL NOM man
 ‘They killed the man.’
- (12) No-to-hoko-mate=mo na mo’ane (* te amai / * di amai).
 3R-PASS-FACT-die=PF NOM man CORE 3PL OBL 3PL
 ‘The man was killed (* by them).’

When the A of the clause is an instrument/effector, however, it may be mentioned in the passive clause.³ It appears with the core case marker *te*, but does not have term status.

³ In *Tukang Besi* instruments and effectors are treated identically as members of the same morphosyntactic ‘class’. For instance, sentences are constrained to allow only one of each distinct ‘class’ of semantic roles in a clause: one location, one goal, one beneficiary, for instance. A possible maximal clause might be something like that seen in (i). (The sentence is unlikely, but grammatical. This would preferentially be coded with a pair of clauses, and a couple of applicatives on the verbs.)

(13) No-pa-motiti='e=mo te 'ooloo na wurai.
 3R-CAUS-dry=3P=PF CORE sun NOM sarong
 'The sun dried the sarong.'

(14) No-to-pa-motiti=mo na wurai **te** 'ooloo.
 3R-PASS-CAUS-dry=PF NOM sarong CORE sun
 'The sarong was dried by the sun.'

This is not simply a function of the verb chosen, or of *pa-* causatives rather than *hoko-* causatives. If (13) were rephrased with a shaman as the causer of the event, the active clause is essentially identical, but the passive clause does not allow for an A by-phrase, since that A would bear the agent semantic role, not the (macro-)instrument.

(15) No-pa-motiti='e=mo te mia pande na wurai.
 3R-CAUS-dry=3P=PF CORE person clever NOM sarong
 'The shaman dried the sarong.'

(16) No-to-pa-motiti=mo na wurai (* te / * di mia pande).
 3R-PASS-CAUS-dry=PF NOM sarong CORE/ OBL person clever
 'The sarong was dried (* by the shaman).'

3.1.2 Case marking

As previously noted, case marking in *Tukang Besi* works as follows: one term is selected on pragmatic grounds to receive the nominative case *na*, the syntactic role of this argument being made clear from the verbal agreement configuration selected. Other terms are marked with *te*, the 'core case' marker.

A non-term must be morphologically marked with an applicative, an oblique case, a preposition or a serial verb in the clause. An instrumental, however, may appear with a core case marker rather than any other of these strategies, and may participate in voice alternations (being marked by the use of nominative, rather than simply core, case) without requiring applicatives. In (17) we can see that the instrument may appear in a clause simply marked by a core case, in addition to the options shown in (18) which are more typical for a non-term: instrumental prepositions and applicative constructions. (19) shows that the instrument may be the nominative argument of the clause, even in the absence of an applicative morpheme.

(i) No-ala te kaujawa kene kene=no ako te ama=no
 3R-fetch CORE cassava COM friend=3GEN BEN CORE father=3GEN
 kene embere kua kampo di hawu'a.
 INSTR bucket ALL village OBL field
 'They fetched cassava to the village with their friends for their father with buckets in the field.'

On the other hand, effectors and instruments may not co-occur. Compare (16) with (ii).

(ii) * no-pa-motiti='e te 'ooloo na wurai ako te mena / kene mena)
 3R-CAUS-dry=3P CORE sun NOM sarong INSTR CORE hot INSTR hot
 'The sun dried the sarong with heat.'

(17) No-koho te kau **te** **baliu**.
 3R-chop CORE wood CORE axe
 ‘He chopped the wood with an axe.’

(18) a. No-koho te kau **kene** baliu.
 INSTR

b. No-koho te kau **ako te** baliu.
 INSTR CORE

c. No-koho=**ako** te baliu te kau.
 3R-chop=APPL
 ‘He chopped the wood with an axe.’

(19) a. No-koho=**e na kau** te baliu.
 3R-chop=3P NOM wood CORE axe
 ‘He chopped the wood with an axe.’

b. No-koho(=**ako**)=**e te kau na baliu**.
 3R-chop(=APPL)=3P CORE wood NOM axe
 ‘He chopped the wood with the axe.’

This behavior is not possible with accompaniers, beneficiaries, or locations, as in (20).

Accompanier/Beneficiary/Location with core case

(20) a. *no-koho te kau **te** (ina=no / koranga)
 3R-chop CORE wood CORE mother=3GEN garden
 ‘They_i chopped the wood the mother_j / the garden_k’

Accompanier/Beneficiary/Location with nominative case in the absence of an applicative

b. no-koho * (-ngkene_i / -api_j / =ako_k)=**e te kau na** (ina=no_{i,k} /
 3R-chop (-APPL)=3P CORE wood NOM mother=3GEN
 na koranga_j).
 NOM garden
 ‘He chopped the wood (for/with his mother / in the garden).’

Accompanier/Beneficiary/Location with non-term marking strategies

c. no-koho=**e na kau ((ako te / kene) ina=no**
 3R-chop=3P NOM wood BEN CORE COM mother=3GEN
 / i koranga).
 OBL garden
 ‘He chopped the wood (for/with his mother / in the garden).’

In this section we have seen that instrumentals in *Tukang Besi* appear to be distinct from other thematic roles in their syntactic behavior:

- like terms, they can appear in unmarked relative clauses (regardless of syntactic role as A, P or adjunct);

- unlike terms, they may appear as *by*-phrases in passive clauses;
- unlike non-terms, they may bear core structural case markers and participate in main clause voice alternations without applicatives.

3.2 TAGALOG

There are three marked nominal cases in Tagalog, and case marking is obligatory in most environments (Schacter and Otones 1972, Kroeger 1993). The case markers are as follows:

ang marks the grammatical subject of the clause; the semantic role of the *ang*-phrase controls ‘agreement’ marking on the verb (‘voice marking’), and all non-a-structure subject properties.

sa is multifunctional: it appears with non-terms; with terms which are neither the highest nor the lowest role in their predicate; and with highly individuated Ps which are not subject.

ng is used with terms which are neither subject nor eligible for *sa*.

Examples of adjunct participants marked with the dative *sa*, or a preposition that governs *sa*, are shown in (21) and (22).

(21) Lulutu-in=niya ang adobo (**para sa** kanila).
 will.cook-PV=3SG.GEN NOM adobo for DAT 3PL.DAT
 ‘She will cook the adobo for them.’

(22) Lulutu-in=niya ang adobo **sa** bahay niya.
 will.cook-PV=3SG.GEN NOM adobo DAT house 3SG.GEN
 ‘She will cook the adobo at her house.’

Adjuncts may be expressed using the appropriate voice on the verb to code them as the subject of the clause, as in (26), in which the ‘dative voice’ *-an* licenses the beneficiary *sila* ‘them’ to appear as the subject, in nominative case.

(23) Lulutu-an=niya=**sila** ng adobo.
 will.cook-DV=3SG.GEN=3PL.NOM GEN adobo
 ‘She will cook them some adobo.’

There are several way to express instrumental nominals in addition to the instrumental voice option. Instrumentals may appear in a complex oblique phrase, marked with *sa*, involving the nominal *pamamagitan* (*ng*) ‘the use (of)’, as in (24). There can be a complex predicate using the verb *gamit* ‘use’, shown in (25); or the instrument may simply be marked as a (non-subject) term with the general term case *ng*, as in (26).

(24) Lulutu-in=niya ang adobo **sa** pamamagitan ng kutsara.
 will.cook-PV=3SG.GEN NOM adobo DAT use(n.) GEN spoon
 ‘She will cook the adobo with a spoon.’

(25) Lulutu-in=niya ang adobo at gamit-in=niya ang kutsara.
 will.cook-PV=3SG.GENNOM adobo CONJ use-PV=3SG.GEN NOM spoon
 ‘She will cook the adobo with a spoon.’

- (26) Lulutu-in=niya **ng** **kutsara** ang adobo.
 will.cook-PV=3SG.GEN GEN spoon NOM adobo
 ‘She will cook the adobo with a spoon.’
- (27) Sundut-in=mo **ng** **karayom** ang lobo.
 poke-PV=2SG.GEN GEN needle NOM balloon
 ‘Poke the balloon with a needle.’

The data in this section also suggests that for some grammatical constructions instrumentals have a special status:

- instrumentals can appear with core structural case marking;
- when marked with *ng*, instrumentals appear preceding the subject which is not an option for other non-terms.

3.3 BILAAN

In Bilaan (Abrams 1961, Rhea 1972) the voice marker (*a*)*m* on the verb marks the S or A of the clause as the subject, and *an* marks the P as subject. The following examples illustrate these voices (note that the pronouns in the following examples are clitics, and do not follow the regular word order described at the beginning of section 3).

- (28) K<**am**>lang **agu** kayu di bulul.
 cut.AV 1SG.NOM tree(s) OBL hill
 ‘I cut trees on the hill.’
- (29) **M**-anwe **agu** dini.
 live.AV 1SG.NOM here
 ‘I live here.’
- (30) K<**an**>lang=gu **kayu** di bulul.
 cut.PV=1SG.GEN tree(s) OBL hill
 ‘I cut trees on the hill.’

In addition to predicates with verbs overtly marked for voice some predicates allow a verb to be unmarked with any voice morphology. In these clauses the subject can be, depending on the verb, the S, P or *instrumental* participant. Examples of each are shown in (31)–(33).

- (31) Kel **agu** malfábi.
 arrive 1SG.NOM yesterday
 ‘I arrived yesterday.’
- (32) Dsù=gu **i** **anok** di tulus.
 sacrifice=1SG.GEN DET chicken OBL spirit
 ‘I sacrifice a chicken to the spirit.’
- (33) Klang=gu kayu **falakol**.
 cut=1SG.GEN tree(s) hatchet
 ‘I cut trees with a hatchet.’

It is not possible for an A to be the subject of an unmarked verb form, nor for other adjuncts (goals, locations, beneficiaries) to appear as subject with no overt voice morphology.

3.4 AUSTRONESIAN SUMMARY

The evidence we have seen in these Austronesian languages for the special syntactic status of instruments is that the instrumental argument is the only adjunct to be able to assume privileged (term-like) status without overt marking, as evidenced through case-marking and verbal agreement.

It is not true that all instruments show uniformly privileged status, however. The instrument must be an intermediate agent in those predicates that allow it special behavior. That is, in order to show term-like privileges, the instrument must exist for the event to take place. If it is not integral in the LCS of the predicate, these privileges do not exist. The following examples show that *wila* ‘go’ does not afford special privileges to an instrument. The instrumental may appear in the clause marked either by the instrumental preposition, in (35a), or the general applicative, in (36b). However the instruments in these clauses are not eligible to appear in core case, or to show agreement on the verb; they are fundamentally different from instrumentals that effect the action in an event.

Tukang Besi

- (34) No-wila kua togo
 3R-go ALL town
 ‘They went to town.’
- (35) a. No-wila **kene** honda kua togo
 3R-go INSTR motorbike ALL town
 ‘They went to town by motorbike.’
- b. *no-wila **te** honda kua togo
 3R-go CORE motorbike ALL town
 ‘They went to town by motorbike.’
- (36) a. *no-wila=**e** **na** honda kua togo.
 3R-go=3P NOM motorbike ALL town
- b. No-wila=**ako** te honda kua togo.
 3R-go=APPL CORE motorbike ALL town
 ‘They went to town by motorbike.’

4. Papuan evidence

This section presents data from three languages of New Guinea, the first two are related to each other in the Skou family, the last is a member of the Torricelli family. The first two non-Austronesian languages discussed have S O V OBL/ADJNT word order; the third (One) is S V O OBL/ADJNT (non-terms, OBL or ADJNT, show near identical behavior in many Papuan languages).

4.1 SKOU

Skou distinguishes grammatical functions as follows:

SUBJECT	agreement prefix on verb; initial position in clause; coordination with switch reference marker = <i>pa</i> ; raising to object in control structures.
OBJECT	(agreement by umlaut on verb); preverbal sister of V' inside VP; raising to object in control structures.
OBL/ADJNT	postverbal positions; reassigned to OBJ in negated clauses (obliques and adjuncts show very similar behavior in the grammar; see Donohue 2002).

Non-patient objects may appear postverbally (in the position of an adjunct), but show the syntactic behavior of OBJ.⁴

	OBJ	V		V	OBJ
(37) a.	Mè	nì=fí.		b. Nì=fí	mè.
	2SG	1SG=meet		1SG=meet	2SG
	'I met you.'			'I (physically) bumped into you.'	

Instrumentals show unique behavior. Unlike the regular non-terms (shown in (39)–(40) with a location and a beneficiary, respectively), instrumentals are case marked by =*pa* and have a very flexible word order, as shown in (41). Here the instrument *ní=pa* may appear either pre- or post-verbally, and may be VP internal or VP external. This freedom of position is not possible with other adjuncts.

(38)	Pe	hè	pe=tue	e	tue.		
	3SG.F	sago	3SG.F=3SG.F.do	3SG.F.be	3SG.F.do		
	'She's cooking sago.'						
(39) a.	Pe	hè	pe=tue	e	tue	bàme.	
	3SG.F	sago	3SG.F=3SG.F.do	3SG.F.be	3SG.F.do	village	
	'She's cooking sago in the village.'						
	b.	* pe	hè	pe=tue	bàme	e	tue
		3SG.F	sago	3SG.F=3SG.F.do	village	3SG.F.be	3SG.F.do
	c.	* pe	bàme	hè	pe=tue	e	tue
		3SG.F	village	sago	3SG.F=3SG.F.do	3SG.F.be	3SG.F.do
(40) a.	Pe	hè	pe=tue	te=te	e	tue.	
	3SG.F	sago	3SG.F=3SG.F.do	3PL=3PL.DAT	3SG.F.be	3SG.F.do	
	'She's cooking sago for them.'						

⁴ This split is similar to English prepositional object predicates, such as *listen to*, or Bantu or Austronesian applicative objects: Indonesian *men-dengar-kan* 'listen to', *Tukang Besi ma'aw=ako* 'forgive'.

- b. * pe **te=te** hòe pe=tue e tue
 3SG.F 3PL=3PL.DAT sago 3SG.F=3SG.F.do 3SG.F.be 3SG.F.do
- (41) Pe (**ní=pa**) hòe (**ní=pa**) pe=tue (**ní=pa**) e tue.
 3SG.F spoon=INSTR sago 3SG.F=3SG.F.do 3SG.F.be 3SG.F.do
 ‘She’s cooking sago with a stirring spoon.’

4.2 BARUPU

Barupu (Donohue 2003) identifies its grammatical functions both morphologically and positionally:

- SUBJECT: agreement on verb, preverbal, not in a close constituent with the verb
 OBJECT: agreement on verb, (preverbal)
 OBL/ADJUNCT: postverbal, no agreement

As in Skou, instrumental arguments appear to share properties of both terms and non-terms. Like terms, they appear before the verb, though their position is not fixed, but like adjuncts, they are not cross-referenced on the verb.

A basic clause is shown in (42). (43) shows the variable positioning of a low-affect object, either preverbally or postverbally (just as in the Skou examples in the previous section). In (44) and (45) we can see that the object of an applicative construction can only appear postverbally.

- (42) Nena **ru’u** k-ana-**peri-re**.
 1SG.M bird R-1SG.M-stare.at-3PL.F
 ‘I_{male} stared at the birds_{female}.’
- (43) a. Nena **ru’u** k-ana-yara-**re**. b. Nena k-ana-yara-**re** **ru’u**.
 1SG.M bird R-1SG.M-see-3PL.F 1SG.M R-1SG.M-see-3PL.F bird
 ‘I_{male} saw the birds_{female}.’
- (44) K-ana-**peri-a-n-i-re** **bom**.
 R-1SG.M-stare.at-3SG.M-1SG-WITH-3PL.F woman
 ‘I_{male} stared at him with the women.’
- (45) * **bom** k-ana-**peri-a-n-i-re**

The position and coding of an instrument is shown in (46). Here the instrument appears preverbally, in the position normally accorded to subjects or objects, yet is not indexed on the verb with any agreement morphology. In (46) we can also see the use of the discourse-function marking case *-a*, which may appear on any, but only, preverbal nominals, including the instrument.

- (46) (Nena) **kawai** oi-a k-ana-raivi(*-re) **mo**.
 1SG.M coconut.scrapers sago-CASE R-1SG.M-cook house
 ‘I cooked the sago pancakes with coconut scraper(s) in the house.’

4.3 ONE

One (Donohue 2000, Sikale et al 2002) exhibits a very strict phrase structure, with grammatical relations primarily encoded by position (although subject is also prefixed on the verb). Each grammatical function can only be instantiated once per predicate: the restriction to one subject is not surprising. The restriction that there cannot be more than one object means that there are no ditransitive verbs and that applicatives are allowed only on intransitive verbs. Moreover there can be only one non-term (one oblique *OR* adjunct). These restrictions result in a highly constrained set of phrase structure possibilities at the clause level.

There is exactly one position in which some variability, and some coincident overt case marking, is allowed. Instruments can appear following the verb and object, in the oblique/adjunct position, as seen in (47). In this position they are obligatorily case marked, in contrast to locations or goals which occur as bare NPs.

(47) No tere aila **eko=ne**.
3PL chop tree axe=INSTR
'They cut the trees down with axes.'

(48) No tere aila **ninkleli**.
3PL chop tree garden
'They cut the trees down in the garden.'

(49) No panteri ala nala.
3PL PL.ascend sun tooth
'They went to the mountain.'

As stated above, multiple obliques/adjuncts are ungrammatical in a single verbal clause.⁵ If required to code more than one non-term, a speaker will resort to a serial verb construction that codes the otherwise non-term as an object or oblique, seen in the codings given to *eko* in (51a) and *ninkleli* in (51b) respectively. Note that this can result in the same verb appearing twice in the clause, as in (52b) and the textual (53). In (52b) it is the wide semantic sense of *pari* (3PL form *panteri*) that licenses the two appearances, one as 'board, travel by means of', and one as 'ascend, go up, climb'. In (53), on the other hand, the first occurrence of *palo* simply marks the source as its oblique, and the second indicates the goal. There is no conventionalized means of indicating a source for inanimate subjects.

(50) * no tere aila **eko=ne** **ninkleli**.
3PL chop tree axe=INSTR garden
'They cut the trees down with axes in the garden.'

(51) a. No n-em **eko** tere aila **ninkleli**.
3PL 3PL-get axe chop tree garden
'They took axes and cut the trees down in the garden.'

⁵ Obliques or adjuncts are not permitted at all in non-verbal clauses.

- b. No panteri **ninkleli** tere aila **eko=ne**.
 3PL PL.ascend garden chop tree axe=INSTR
 ‘They went to the garden and cut the trees down with axes.’
- (52) * no panteri **ala nala** , (**pleni** / **tolla moa=ne**)
 3PL PL.ascend sun tooth path bird mother=INSTR
 ‘They went to the mountain by road/plane.’
- (53) a. No n-upane **pleni** panteri **ala nala**.
 3PL 3PL-follow path PL.ascend sun tooth
 ‘They went to the mountain by road.’
- b. No panteri **tolla moa** panteri **ala nala**.
 3PL PL.ascend bird mother PL.ascend sun tooth
 ‘They went to the mountain by road/plane.’
- c. Yine mamplo au puno sa ese w-ae e asu
 2SG rinse sago pith TOP IRR 2/3SG-sit SG.be sago.strainer
 pente au ani sa ese fanta palo **tiroa** palo
 with sago milk TOP IRR fall go.down sago.trough go.down
nal mairop.
 sago catcher
 ‘When you rinse sago, the scrapings stop at the strainer, and the milk goes down from the trough to the sago catcher.’

While still bound by the one-oblique/adjunct-per-clause constraint, instruments show behavior that is quite distinct from the other non-terms: in addition to being case marked, as in (47), they have variable position, as seen by comparing (54) with (47). In addition to the position following the nominal object, instruments may also precede it. This is not possible for locations, as shown in (55).

- (54) No tere **eko=ne** aila.
 3PL chop axe=INSTR tree
 ‘They cut the trees down with axes.’
- (55) * no tere **ninkleli** aila
 3PL chop garden tree

Instruments in One are non-terms: they cannot appear in a clause with another non-term (e.g. a locative argument). However, they also show object-like behavior quite distinct from other non-terms in their positional freedom and overt case marking.

4.4 NEW GUINEA SUMMARY

The Papuan evidence, from two unrelated language families, shows that instruments are privileged non-terms. In the languages examined instruments show positional freedom of a kind not associated with other non-terms, or with terms. Despite this, instruments are not coded as terms: they do not show agreement on the verb, and in Skou and One require specific case marking

5. Conclusion

We have examined data from six different languages of the Pacific. In each of these languages instrumentals *that are integral to the event* may exhibit term-like properties in the clause. This distinguishes them from other non-terms and is perhaps an unexpected observation given their position in the (standardly assumed) thematic hierarchies.

This exceptional behavior is, we believe, due to the semantic status of the instrumental. When the instrument is necessary for the event to take place, then it is part of the Lexical Conceptual Structure (LCS) of the verb. It is not a term, and need not be overtly expressed. However, it is this inclusion in the LCS which enables it to participate in a broader range of grammatical constructions resulting in properties that are shared with both terms and non-terms. This has been demonstrated for *Tukang Besi* and for *Bilaan*. Support for this in the grammar of Tagalog is found in many works on Tagalog verbal structures, all of which emphasize the idiosyncratic and unpredictable nature of the non-term voices that allow, for instance, an instrument to appear as subject. The reason for the non-uniformity of voice alternations is that only those instruments which are present in LCS allow promotion to subject (on this topic see, for example, De Guzman 1978, Himmelmann 1991, McFarland 1976 and Ramos 1974, as well as the references cited earlier).

The non-subcategorized status of beneficiaries in turn implies and explains the frequent appearance of a beneficiary applicative before other applicatives: instruments are lexically advantaged, and so do not so commonly require the overt and dedicated morphosyntactic coding options that approximate term status, in the form of applicatives. Instruments do not so immediately require a dedicated applicative, since they are already part of the Lexical Conceptual Structure, while beneficiaries (and, commonly, locations) are not an integral part of the event structure of the predicate.

This study predicts a broader distinction between ‘adjuncts’ that appear in the LCS and (true) adjuncts that are part of the LCS, in terms of their grammatical properties. We leave the investigation of the full extent of these distinctions, in a wider range of languages, for future work.

References

- Abrams, Norman. 1961. Word base classes in *Bilaan*. *Lingua* 10: 391-402.
- Alsina, Alex and Sam Mchombo. 1990. The syntax of applicatives in Chichewa: problems for a theta theoretic asymmetry. *Natural language and linguistic theory* 8 (4): 493-506.
- Bresnan, Joan and Jonni Kanerva. 1989. Locative inversion in Chichewa: a case study of factorization in grammar. *Linguistic Inquiry* 20(1): 1-50.
- Comrie, Bernard. 1978. Ergativity. In Winifred P. Lehmann, ed., *Syntactic typology: studies in the phenomenology of language*: 329-394. Sussex: The Harvester Press.
- Dalrymple, Mary. 2001. *Lexical Functional Grammar. Syntax and Semantics* vol. 34. Academic Press: London.

- Davis, Tony. 1997. Lexical semantics and linking in the hierarchical lexicon. PhD thesis, Stanford University.
- De Guzman, Videa P., 1975. Syntactic derivation of Tagalog verbs. Oceanic Linguistics Special publications 16. Honolulu: The University Press of Hawaii.
- Donohue, Mark. 1999. *A grammar of Tukang Besi*. Berlin: Mouton de Gruyter.
2000. One phrase structure. In Keith Allan & John Henderson, eds., *Proceedings of ALS2k, the 2000 Conference of the Australian Linguistic Society*. University of Melbourne. Published online at <http://www.arts.monash.edu.au/ling/als/als2kproceedings.shtml>.
2002. Negation and Grammatical functions in Skou. In Peter Collins & Mengistu Amberber, eds., *Proceedings of ALS2002, the 2002 Conference of the Australian Linguistic Society*. University of New South Wales. Published online at <http://www.arts.unsw.edu.au/als2002/>.
2003. Morphological templates, headedness, and applicatives in Barupu. *Oceanic Linguistics* 42 (1): 111-143.
- Foley, William A. and Robert D. Van Valin. 1984. *Functional Syntax and Universal grammar*. Cambridge: Cambridge University Press.
- Himmelmann, Nikolaus P. 1991. The Philippine challenge to universal grammar. Arbeitspapier Nr. 15 (Neue Folge), Universität zu Köln.
- Kroeger, Paul. 1993. *Phrase structure and Grammatical relations in Tagalog*. Stanford: CSLI publications.
- Marantz, Alec P. 1984. On the nature of grammatical relations. Cambridge: MIT Press.
- McFarland, Curtis D. 1976. A provisional classification of Tagalog verbs. Study of languages & cultures of Asia & Africa monograph series No.8. Tokyo: Toyo Shuppan and Tokyo Gaikokugo Daigaku: Institute for the study of languages and cultures of Asia and Africa.
- Ramos, Teresita V. 1974. The case system of Tagalog verbs. Canberra: Pacific Linguistics B-27.
- Rhea, Mary. 1972. Prefocus and verbal orientation in Sarangani Bilaan. *Philippine Journal of Linguistics* 2: 35-42.
- Schachter, Paul, and Fe T. Otones. 1972. Tagalog reference grammar. Los Angeles: University of California Press.
- Sikale, John Weiyo, Melissa Crowther and Mark Donohue. 2002. One dictionary. Available online at <http://www.molmo.com>.