Argument alignment in Takivatan Bunun: Many questions, some answers[1]

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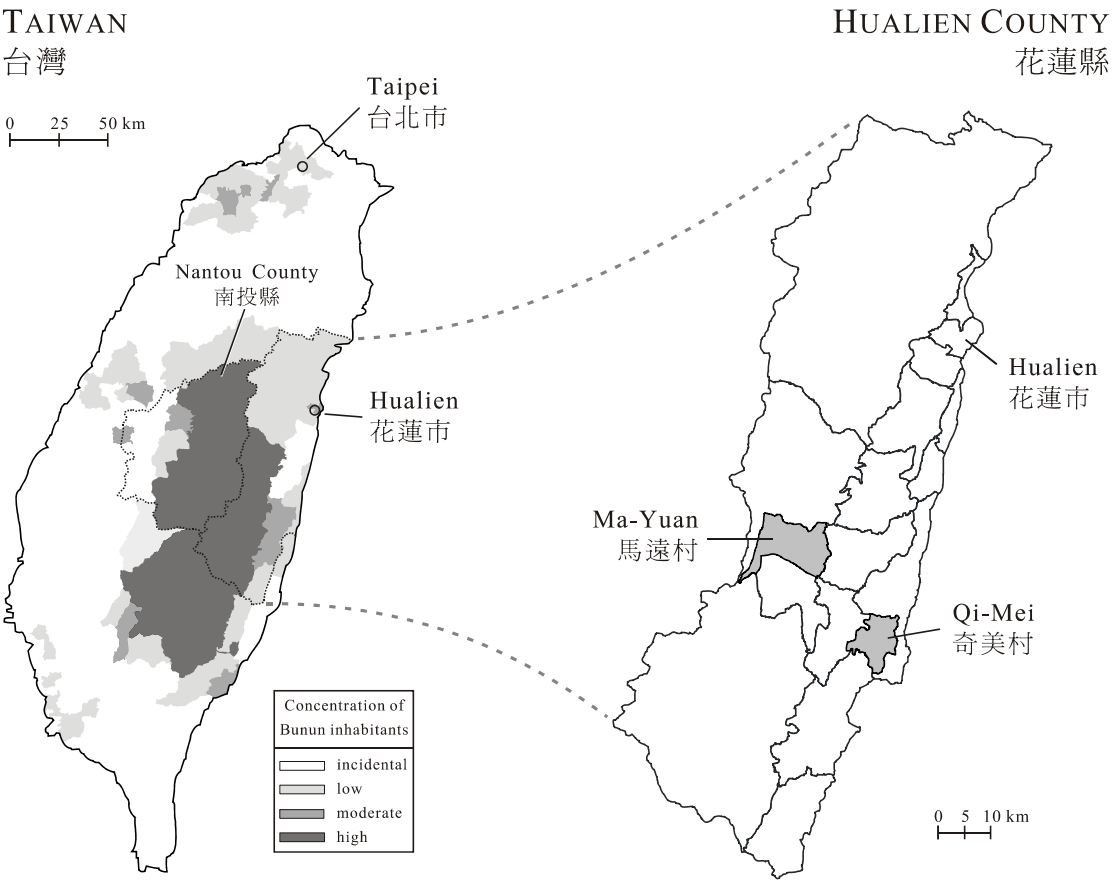
In this talk, I will give an overview of the morphological and syntactic mechanisms that influence the expression or semantic implication of core arguments in the Takivatan dialect of Bunun. In the second part of this talk, I will try to argue that the interactions that exist between these mechanisms make it difficult to define Takivatan argument in terms of traditional concepts of transitivity.

1. Introduction

Bunun is one of the fourteen officially recognized Austronesian languages spoken on Taiwan. It is mainly spoken in the mountainous regions of Central Taiwan. There are approximately 50,000 ethnic Bunun (CIP (2009)), but I would estimate that at most 60% are still reasonably fluent speakers of Bunun. Language transfer to younger generations has almost completely halted.

There are five Bunun dialects: Isbukun (the southern dialect), Takbanuað and Takivatan (the central dialects), and Takituduh and Takibakha (the northern dialects). Takivatan is mainly spoken in two villages in Hualien County, which jointly have a population of around 1600 people; another 100+ Takivatan live in four mixed villages in Nantou County.

[1] This is a slightly modified version of a talk that was given at the Research Centre for Linguistic Typology (La Trobe University, Australia) on 15 May 2009. Eventually, it will be reworked in an article, so please feel free to give comments.



Map 1 Distribution of Bunun in Taiwan and Takivatan settlements in Hualien

2. Argument alignment

In many Austronesian languages, transitivity is a problematic concept. In this first section, we will therefore first have a look at the mechanisms involved in argument alignment, i.e. in how (core) arguments are expressed or implied in a prototypical clause.

2.1. Focus suffixes

Takivatan Bunun distinguishes three focus types:

- agent focus (AF), unmarked.
- undergoer focus (UF), marked by *-un*.
- locative focus (LF), marked by -an.

Undergoers can be patients, beneficiaries or instruments, but a bare UF suffix without any verbal prefixes almost always marks patients.

Note that the term 'focus' does in this work not refer to the concept of pragmatic

focus as it is used in many branches of modern linguistics, but goes back to an old tradition in Austronesian linguistics and refers to a system of verbal affixes that is used in many Austronesian languages of Taiwan and the Philippines to cross-refer to a set of syntactic-semantic participant roles associated with the verb.

Some examples:

(1) Siða malŋaŋausta maduqta.

{siða-**Ø**}	[malŋaŋaus-ta]$_{AG}$	[maduq-ta]$_{UN}$
take-**AF**	shaman-DEF.REF.DIST	millet-DEF.REF.DIST

'**The shaman** took millet.' (adapted from TVN-012-001:69)

(2) Siðaʔun asik.

{siða-**un**}	[asik]$_{UN}$
take-**UF**	shrub

'[They] gathered **the shrubs**.' (adapted from TVN-012-001:24)

(3) Maqtu pasiðaʔanin ŋabul, vanis.

{maqtu}$_{AUX}$	{pa-siða-**an**-in}	[ŋabul	vanis]$_{UN}$
can	CAUS.DYN-take-**LF**-PRV	antler	wild.boar

'We can [**in that place**] catch deer and wild boar.' (TVN-008-002:47)

As the last example show, the focused argument is not necessarily explicitly expressed and, because it is the topic of the clause, it is in fact more likely to be omitted. In some cases, especially with locative focus, it is even perceived impossible to explicitly express the focused argument.

The three focus types have traditionally often been associated with dynamic verbs expressing transitive concepts (agent → event → undergoer). However, we will see below that focus is also relevant for other event types, such as stative or locative/directional events.

2.1.1. Undergoer focus constructions

Undergoer focus suffixes stress / topicalise the undergoer of a construction. They do not change the argument order, as the two examples below illustrate.

(4) Siðaʔun malŋaŋausta asik.

{siða-**Ø**}	[malŋaŋaus]$_{AG}$	[asik]$_{UN}$
take-**AF**	shaman	shrub

‘The shaman gathered the shrubs’ (constr.)

(5) Siðaʔun malŋaŋausta asik.

{siða-**un**}	[malŋaŋaus]$_{AG}$	[asik]$_{UN}$
take-**UF**	shaman	shrub

‘The shaman gathered the shrubs’ (constr.)

However, a change from AF to UF can change the case marking of noun phrases, at least with transitive dynamic events. This is only visible on personal pronouns.

(6) Antalamʔak suʔu

{antalam}[-**ʔak**]$_{AG}$	[**suʔu**]$_{UN:PAT}$
answer-**1S.F**	**2S.N**

‘I answer you.’ (TVN-xx2-001:4)

(7) Antalamun ðaku suʔu

{antalam-un}	[**ðaku**]$_{AG}$	[**suʔu**]$_{UN:PAT}$
answer-UF	**1S.N**	**2S.N**

‘I answer you.’ (TVN-xx2-001:3)

With adjectives and locative verbs, the undergoer suffix tends to have causative-like semantics, although different gradations are possible.

(8) Hanun aip minpantu.

{han-**un**}	[aip]$_{AG}$	{min-pantu}
go-**UF**	DEM.S.VIS	BECOME-student

‘She [lit: that one] was sent there to become a student’ (TVN-012-002:119)

(9) Hanun daiða madaiŋpus kasi.

{han-**un**}	[daiða]$_{PLACE}$	{ma-daiŋpus}	[kasi]$_{UN:PAT}$
go-**UF**	there	DYN-put.inside	candy

'Go there [lit: I make you go there] and put candies inside' (TVN-xx2-001:158)

With stative intransitive concepts (adjectives) with inanimate agents, the semantic effect of adding an undergoer focus suffix is often similar to direct causation. It is even possible sometimes to introduce the causer explicitly as a new agent and demote the causee to the undergoer slot.

(10) Maqai masihal titiʔa, sihalun aipi sia binanauʔað

maqai	{ma-sihal}	[titi-a]$_{AG}$		
If	STAT-good	meat-SUBORD		
{sihal-**un**}	[**aipi**]$_{AG}$	[sia	binanauʔað]$_{UN:BEN}$	
good-**UF**	**DEM.S.PROX**	ANAPH	wife	

'If the meat was good, he could store it well for his wife.' (TVN-012-001:52)

Note that the undergoer focus form of adjectives can never take the normal stative prefix (*ma-* in (10)), but must be either prefixless, or take a causative or associative prefix (*mi-* or *ka-*). Given the fact that prefix ellipsis is common in Takivatan, one might argue that UF forms are actually ellipted causative or associative forms.

2.1.2. Locative focus constructions

In general, the locative focus suffix *-an* appear to behave in very similar ways, although it is harder to determine its influence on the constituency of clauses because in most LF constructions there is no or only one argument (which is usually not the locative argument). Since I have not been able to find any LF constructions with two pronominal forms, it is impossible to say anything about the influence of LF *-an* on case.

A good example of an argument-less construction is (11), where the concept that is semantically an undergoer (i.e. 'house') is part of the verb. ('This land' in the translation is an interpretation based on the presence of LF *-an*).

(11) Nakalumaqan masihala

{na-ka-lumaq-**an**} {ma-sihal-a}
IRR-MAKE-house-**LF** STAT-good-LNK

'This land is suitable for building houses on it.' (TVN-012-002:131)

An example of a typical construction with one argument:

(12) Kavaʔa nabalivan mita hulus.

$\{kavaʔa\}_{AUX}$ {na-baliv-**an**} [mita hulus]$_{UN:PAT}$
immediately/quickly IRR-buy-**LF** 1I.POSS clothes

'I will immediately go buy your clothes there.' (TVN-xxx-xx1:139)

The locative suffix is also used for cross-referencing the agents of verbs of perception and cognition and similar lowly-agentive concepts (e.g. *daŋað* 'help, assist'). (This is not unsimilar to non-canonical marking of the agents of similar constructions in other languages, e.g. dative marking of experiencers in German.)

(13) Haiða masihal saduan qaniŋu.

$\{haiða\}_{AUX}$ $\{ma\text{-}sihal\}_{AUX}$ {sadu-an} [qaniŋu]$_{UN}$
have STAT-good see-LF picture

There is a beautiful movie on TV. (TVN-xxx-xx1:58)

Like the undergoer focus suffix, LF *-an* can occur with non-dynamic events. Unlike the UF, the neutral verbal prefix can sometimes be retained in such constructions.

(14) […], masihalan dalaquna

{ma-sihal-an} [dalaq-un-a]$_{LO}$
STAT-good-LF ground-EMPH-LNK

'[They went down to a place that was then called Dastalan,] the land was very good there' (TVN-012-002:167)

Unlike (14), the majority of LF constructions have no explicitly expressed locative arguments and in many cases speakers indicate that it is impossible to insert a locative argument into the construction. Another problem is that a locative focus construction is accompanied by a peripheral place argument rather than a core locative argument, as in (15).

(15) padaŋiʔan qasila han baluku

{pa-daŋi-an}	[qasila]$_{UN}$	[han	baluku]$_{PLACE}$
CAUS.DYN-put-LF	salt	at	bowl

'put salt in a bowl' (TVN-xx2-001:156)

The phrase *han baluku* 'in a bowl' is best analysed as a peripheral argument here: it always occurs in clause-final position, it is expressed by a prepositional phrase (which historically derived from a serial verb construction) and unlike other core arguments it cannot be topicalized by left-dislocation (see also 2.4.1). An example of a core locative argument (in an atypical position in an AF construction) is given below.

(16) Kamaʔuka ʔiti saŋlav.

{kama-ʔuka}	[ʔiti]$_{LO}$	[saŋlav]$_{UN:PAT}$
RATHER-NEG.have	here	vegetables

'There are rather few vegetables here.' (TVN-xx2-003:26)

In conclusion, there is a ternary distinction between AF, UF and LF in Takivatan that is relevant to dynamic verbs, stative verbs and locative verbs and to transitive and intransitive concepts. The semantic and sometimes also syntactic effect of non-AF suffixes depends on the type of stem they combine with. They almost never promote arguments into the core or demote core arguments to the periphery, although it is not really clear what happens to arguments in LF constructions. Overall, their effect seems to be motivated by functional-semantic, rather than syntactic factors.

	Prefix	Function
LOCATIVE	*i-*	Stationary (space & time); 'at, in'
	mun-	Allative (space & time); 'towards'
	mu-	Allative (space); 'towards'
	maisna-	Ablative (space & time); 'from'
	maisi-	Ablative (time); 'from … onward'
	sau-	Terminative; 'until'
	tauna-	Perlative; 'through'
EVENT TYPE	*ma-*	Marks dynamic events
	ma-	Marks stative events
	mi-	Marks stative events
	min-	Marks inchoative events
PARTICIPANT ORIENTATION	*is-*	Marks instrument orientation
	ki-	Marks beneficiary orientation
	sin-	Marks resultative object orientation
CLASSIFI-CATORY	*kat-*	Marks grasping movements
	kin-	Marks a stomping or plopping movement
	mis-	Marks burning events
	tin-	Marks an event involving a sudden shock
SEMANTICALLY SPECIFIC	*matu-*	Turns an emotive event into a dynamic event
	pa-	Indicates high agency
	paka-	Indicates that the agent brings about a state
PATIENT-INCORPORA-TING	*kun-*	'wear X'
	malas-	'speak (language) X'
	maqu-	'use X as a tool'
	tal-	'wash X'

Table 1 – Some representative verbal prefixes

2.2. Verbal prefixes

As I mentioned many times before, Takivatan Bunun has a large set of verbal prefixes (see De Busser (2009) for an overview). Table 1 gives some typical examples.

We will here be mainly concerned with three participant orientation prefixes (third category in Table 1) that encode pragmatic information about participants:

- The instrument orientation prefix *is-*.
- The beneficiary orientation prefix *ki-*.
- The resultative object orientation prefix *sin-*.

Functionally, these prefixes are similar to focus suffixes, since they put pragmatic stress on a certain participant in the event (in the three cases above subtypes of undergoer).

There are also some important differences with focus suffixes. Although it is sometimes possible for participant orientation prefixes to occur on non-dynamic verbal stems, as in (17), this happens only very rarely. I have so far not attested a PO prefix on a locative/directional stem.

(17) Istamasaðan, udinunan

{is-tamasað-an}	[udinun-an]$_{LO}$
INSTR-strong-LF	gather-LF

'We fervently believed at the [prayer] gathering.' (TVN-008-002:221)

Whereas focus suffixes retain argument order but change case, participant orientation prefixes typically change both the case and the constituent order. The following two examples illustrate a change of case brought about by RES.OBJ *sin-* (argument reordering is not visible because the agent in (19) is expressed on the auxiliary).

(18) Masuað amu hutan.

{ma-suað}	[**amu**]$_{AG}$	[hutan]$_{UN:PAT}$
DYN-grow	**2P.F**	yam

'you grow yams' (constr.)

(19) Haiða mu madia sinsuað hutan?

{haiða}$_{AUX}$	[**mu**]$_{AG}$	{madia}$_{AUX}$	{**sin**-suað}	[hutan]$_{UN:PAT}$
have	**2P.N**	many	**RES.OBJ**-grow	yam

'Did you (pl.) manage to grow many yams?' (TVN-xx2-003:33)

The following two examples with RES.OBJ *sin-* illustrate the change of argument order, but the change of case is not visible (because the arguments are not personal pronouns).

(20) Masaiv bunun aipi

{ma-saiv} [bunun]$_{AG}$ [**aipi**]$_{UN:PAT}$
DYN-give people **DEM.S.PROX**

'People give it.' (constr.)

(21) Manak qaimaŋsuðtia, sinsaiv aipi bunun.

{ma-nak} [qaimaŋsuð-ti-a]
ACT-1S.N thing-DEF.REF.PROX-SUBORD

{**sin**-saiv} [**aipi**]$_{UN:PAT}$ [bunun]$_{AG}$
RES.OBJ-give **DEM.S.PROX** people

My thing here, other people gave it to me. (TVN-xx2-003:42)

Change of argument order and of case are both illustrated in the following example with BEN *ki-*.

(22) Masaiv?ak su tilas.

{ma-saiv}[-**?ak**]$_{AG}$ [**su**]$_{UN:BEN}$ [tilas]$_{UN:PAT}$
DYN-give-**1S.F** **2S.N** cereal

'**I** give **you** rice.' (constr.)

(23) Ukin ?ak tilasa, na kisaiv?ak su tilas.

{uka-in}[-?ak] [tilas-a]
NEG.have-PRV-1S.F cereal-SUBORD

na {**ki**-saiv}[-**?ak**]$_{UN:BEN}$ [**su**]$_{AG}$ [tilas]$_{UN:PAT}$
IRR **BEN**-give-**1S.F** **2S.N** cereal

'I don't have rice anymore, **you** give **me** rice!' (TVN-xx2-003:46)

It is clear from the examples that these prefixes exhibit a passive-like or – some might argue – applicative-like behaviour, since they appear to raise the instrument / beneficiary / resultative object to agent-position in the clause. The problem with such an analysis is that both passivisation and applicativisation usually lead to a change in transitivity (agents get demoted or objects get added). In the case of Takivatan PO prefixes, (a) the arguments that are raised are subtypes of undergoers and behave very much like core arguments and (b) there is not really a change in the number of

arguments that can be expressed in the clause, just a reordering.

2.3. Causatives

We saw in 2.1.1 that UF constructions can in some environments express causative-like meanings. There are also verbal prefixes that unambiguously have causative semantics, i.e. they indicate that an external agent is involved in the event or "that the argument which is syntactically encoded as the agent and which is the main agentive force in the event is not the main instigator of the event" (De Busser (2009:299)).

A number of verbal prefixes (cf. Table 1) have causative variants in which the initial consonant, typically *m-*, is replaced by a morph *p-*. These alternates can express both direct and indirect causation; the interpretation is context-dependent.

	Neutral	Causative
Dynamic	*ma-saiv* 'give'	*pa-saiv* 'cause to give; make give'
Stative	*ma-sihal* 'good'	*pi-sihal* 'make good'
Inchoative	*min-haiða* 'become prosperous'	*pin-haiða* 'cause sb to become prosperous'
Allative	*mun-han* 'go'	*pun-han* 'cause to go; make sb go; put; …'
Ablative	*maisna-ʔita* 'come from there'	*paisna-ʔita* 'cause to come from there'

Table 2 – Causative and associative forms

Very often, causative forms co-occur with UF *-un*. They also combine with LF *-an*, but this is much less common.

(24) patasʔiun.

pa-tasʔi-un
CAUS.DYN-make-UF

'I will have it fixed.' (TVN-xx2-004:16)

(25) patasʔian.

pa-tasʔi-an
CAUS.DYN-make-LF

'I want to make it so that something stays in a fixed spot' (TVN-xx2-004:18)

In many causative constructions, informants are reluctant to allow the introduction of

the causer as an explicit argument in the clause, especially with transitive dynamic concepts (like the two examples above). In the corpus, causatives usually occur without arguments following the verb, as in (26).

(26) Maqai haiða tantuŋuka, pisihalun paluŋku, pasihal baðbað, pakaunan, […]

maqai {haiða}$_{AUX}$ {tantuŋu-ka}
if have visit-DEF.SIT.DIST

{pi-sihal-un} {pa-luŋku}
CAUS.STAT-good-UF CAUS.DYN-sit.down

{pa-sihal} {baðbað}
CAUS.DYN-good talk

{pa-kaun-an}
CAUS.DYN-eat-LF

'If there is a visitor, you have to let him sit down comfortably, and talk to him in a pleasant way, and give him to eat, […]' (TVN-013-001:15)

With adjectives and locative verbs, it is easier to explicitly express a causer. When a causer is introduced, it goes into the agent slot and the agent of the original construction becomes an undergoer.

(27) Na punhanun ðaku aipi Kuhkuta patasʔi(ʔun).

na {pun-han-un} [ðaku]$_{CSR}$ [aipi]$_{CSE}$
IRR CAUS.ALL-go-UF 1S.N DEM.S.PROX

[Kuhku-ta]$_{PLACE}$ {pa-tasʔi-un}
GeoName-DEF.REF.DIST CAUS.DYN-make-UF

'I will take this thing to Kuhku to have it fixed.' (TVN-xx2-004:17)

If it is not possible to express an explicit causer on the causative predicate, this is often solved by using complex verb phrases.

(28) Lusquʔun ðaku inak haqu punhan baʔav.

{lusqu-un}	[ðaku]$_{AG}$	[inak	haqu]$_{UN:PAT}$
move-UF	1S.N	1S.POSS	snare

{pun-han}	[baʔav]$_{PLACE}$
CAUS.ALL-go.to	up.in.mountains

'My trap, I moved it up into the mountains.' (TVN-xx2-003:23)

Affix ellipsis is fairly common in Takivatan Bunun and it is possible to interpret the UF forms we saw in 2.1.1 as ellipted causative constructions. The problem is that it is not always possible to unambiguously reconstruct the putative ellipted prefix (it could be a causative, associative or other prefix).

2.4. Argument expression

2.4.1. Full NP arguments

Takivatan argument order is normally fixed and arguments are typically ordered from high to low agentivity:

Agent Instrument Beneficiary Patient Location (Peripheral)

However, it is impossible to express all these arguments on a single verb. In fact, in actual discourse it is rare to express more than one argument per verb and impossible to have more than three. The latter is only possible in certain contexts:

- There can be no ambiguity as to the status of the participants
- Arguments cannot be too bulky; typically only single-word phrases are allowed in three argument constructions
- Three argument constructions are more likely when one of the arguments is a bound pronoun

Examples like the one below are therefore very uncommon.

(29) naʔiskalatun ðaku tuqnaði asu.

{na-is-kalat-un}	[ðaku]$_{AG}$	[tuqnað-i]$_{UN:INSTR}$	[asu]$_{UN:BEN}$
IRR-INSTR-bite-UF	1S.N	bone-PRT	dog

'I want to give the bone to a dog to bite it.' (TVN-xx2-005:65)

If only one argument is expressed, the interpretation tends to depend on semantics and

context. In (30) the argument *bunun* 'people' is always interpreted as the agent, probably because it is highly animate; in (31), *qaimaŋsuð* 'thing' is typically interpreted as an undergoer, because it is less agentive.

(30) ludaqun bunun

{ludaq-un}	[bunun]$_{AG}$
beat-UF	people

'You are beaten by some person' (not: some person is beaten) (TVN-xx2-001:139)

(31) Tuqluʔun qaimaŋsuð

{tuqlu-un}	[qaimaŋsuð]$_{UN}$
cover-UF	thing

'The thing/object is/has been covered.' (not: I have covered the thing)
(TVN-xx2-001:159)

The grammatical slot in which the *bunun* and *qaimaŋsuð* occur is different, as is illustrated in (33).

(32) (a)

{ludaq-un}	[bunun]$_{AG}$	[ðaku]$_{UN}$
beat-UF	people	1S.N

'People beat me'

(b)

{tuqlu-un}	[ðaku]$_{AG}$	[qaimaŋsuð]$_{UN}$
cover-UF	1S.N	thing

'I cover the thing'

If more than three arguments need to be explicitly expressed or a complex NP creates a confusing concatenation of arguments, periphrastic strategies are used. Most common are constructions with auxiliary verbs (in which the agent is usually expressed on the first auxiliary) or serial verb constructions. The former is illustrated in (33), the latter in (34). Native speakers like the second example better because the arguments are maximally dispersed across three verbs.

(33) maqtuʔas pasimul ðaku qaimaŋsuð?

{maqtu}$_{AUX}$[-ʔas]$_{AG}$	{pa-simul}	[ðaku]$_{UN:BEN}$	[qaimaŋsuð]$_{UN:PAT}$
can-2S.F	CAUS.DYN-borrow	1S.N	thing

'Can you borrow me the thing?' (TVN-xx2:004:4)

(34) maqtuʔas pasimul qaimaŋsuð isaiv ðaku?

{maqtu}$_{AUX}$[-ʔas]$_{AG}$	{pa-simul}	[qaimaŋsuð]$_{UN:PAT}$
can-2S.F	CAUS.DYN-borrow	thing

{i-saiv}	[ðaku]$_{UN:BEN}$
AFF-give	1S.N

'Can you borrow me the thing?' (TVN-xx2:004:5)

A more exotic solution for the too-many-arguments problem is the example below In (35), it is difficult to express the NP *qaimaŋsuð nak* 'my thing' in the main clause, since this would result in a long NP in non-final position and, in addition, ambiguity would be created because the neutral form *nak* can be interpreted both as a possessive and an argument. To solve this, the whole phrase is left-dislocated, the possessive pronoun is verbalized and *qaimansuð* becomes an argument to the verbalized personal pronoun.

(35) Manak qaimaŋsuðtia, sinsaiv aipi bunun.

{ma-nak}	[qaimaŋsuð-ti-a]
STAT-1S.N	thing-DEF.REF.PROX-SUBORD

{sin-saiv}	[aipi]$_{UN:PAT}$	[bunun]$_{AG}$
RES.OBJ-give	DEM.S.PROX	people

'My thing here, other people have given it to me.' (TVN-xx2-003:42)

2.4.2. Free personal pronouns

Takivatan has a sizeable set of personal pronouns. They are relevant here because they are the only words in Takivatan that have some sort of case marking.

	Bound		Free			
	Foc. (F)	**Non-foc. agent (NFA)**	**Neutral (N)**	**Foc. Agent (F)**	**Locative (LO)**	**Possessive (POSS)**
1S	-(ʔ)ak	-(ʔ)uk	ðaku, nak	sak, saikin	ðakuʔan	inak, ainak, nak
2S	-(ʔ)as	—	suʔu, su	—	suʔuʔan	isu, su
3S	-(ʔ)is	—		*isti* PROX *istun* MED *ista* DIST		—
1I	—	—	mita	ʔata, inʔata	mitaʔan	imita
1E	-(ʔ)am	—	ðami, nam	ðamu, sam	ðamiʔan	inam, nam
2P	-(ʔ)am	—	muʔu, mu	amu	muʔuʔan	imu, mu
3P	—	—		*inti* PROX *intun* MED *inta* DIST		—

Table 3 – Personal pronouns

There are bound and free forms. Most free forms distinguish between a neutral form and a focused agent form.

The neutral form marks focused and non-focused undergoers ((36) and (37) respectively); non-focussed agents ((38)); left-dislocated arguments; and post-nominal possession.

(36) Mindaidað aipun ðaku.

{min-daidað} [aipun]$_{AG}$ [ðaku]$_{UN:PAT}$
BECOME-love DEM.S.MED 1S.N

'She must not love me.' (TVN-xx2-007:48)

(37) kadiŋvaʔa Ulikun ðaku

{ka-diŋva-a} [Uli-kun]$_{AG}$ [ðaku]$_{UN:BEN}$
HI.AG-phone-LNK PersName.F-DEF.SIT.MED 1S.N

'Uli gave me a call' (TVN-008-003:138)

(38) Tuqluʔun ðaku qaimaŋsuð

{tuqlu-un} [ðaku]$_{AG}$ [qaimaŋsuð]$_{UN:PAT}$
cover-UF 1S.N thing

'I cover the thing'

The focused agent form is used for focused agents, but usually only in emphatic context and higher register. In most contexts, bound forms are more common

(39) miliskin sak tu nitu mataiklas

{miliskin}	[sak]$_{AG}$	tu	{ni-tu}	{ma-taiklas}
think	1S.F	COMPL	NEG-COMPL	STAT-intelligent

'I believe that I am not very intelligent.' (TVN-012-002:1)

Locative and possessive forms are derived from the neutral form and are not relevant for our discussion here. In many contexts, pronouns can be easily ellipted.

2.4.3. Bound personal pronouns

Bound forms of the personal pronoun typically refer to a focus agent.

(40) maqunʔak ismut

{maqun}[-ʔak]$_{AG}$	[ismut]$_{UN:PAT}$
cut-1S.F	grass

'I cut off the grass' (TVN-012-002:8)

However, in UF constructions they can refer to the focused undergoer, as in (41).

(41) Kinalatunʔak asu.

{k‹in›alat-un}[-ʔak]$_{UN:PAT}$	[asu]$_{AG}$
‹PST›-bite-UF-1S.F	dog

'I have been bitten by a dog.' (TVN-xx2-005:73)

The only exception to this general pattern is *-uk*, a portmanteau form that derives from a contraction of UF *-un* and 1S.F *-ʔak* and always refers to a non-focused agent in undergoer focus constructions.

(42) Panaquka

{panaq}[-uk-a]$_{AG}$	<	panaq-un-ak-a
shoot-1S.NFA-PRT		shoot-UF-1S.F-PRT

'It was shot by me' (TVN-008-002:87)

Normally, only one bound pronoun occurs per verb. When occasionally two bound

pronouns appear, the order is always 1S-2S and agent-undergoer.

3. Transitivity

Based on all the above, what can we say about transitivity in Takivatan Bunun? How can we define transitivity in a useful way? Does it make sense to define it?

My analysis of predicate-argument structure is somewhat different from the influential modern analyses of Western-Austronesian languages by Reid & Liao (2004) and Ross & Teng (2005), in which the focus system has been analysed as underlyingly ergative, and also from the traditional analyses that consider AF to be basic and all other focus types to be passive forms (cf. Bloomfield (1917) for Tagalog; see LaPolla (2008) for a discussion of these two approaches). Instead, I assume that the argument alignment systems of Bunun is 'special' in that it is the result of an interaction of a number of interacting subsystems and it is not really useful to collapse these subsystems into a single system. This would imply that transitivity is likely to be more complicated than a simple distinction between transitive and intransitive.

We will have a look at how at different levels of the language we can think about the 'transitivity' of a Bunun expression.

3.1. On the level of verbal roots

On a lexical level, it is clear that some verbal stems (or better: stems referring to events) encode concepts that we would call transitive (a large portion of dynamic verbs) and other stems concepts that we would call intransitive (e.g. locative verbs and adjectives). Some examples:

Dynamic	Stative	Locative
saiv 'give'	sihal '(be) good'	han 'be at, go to'
daŋað 'help'	taiklas '(be) intelligent'	ʔita '(be) there'
patað 'kill'	naskal '(be) glad'	baʔav '(be) in a higher location'

This has certain syntactic consequences. For example, a neutral (i.e. non-causative) AF form of a stative verb will normally only have an agent, and maybe a locative argument, but never an undergoer. For instance, the two clauses below illustrate that you cannot say something like 'I am good-ing you' in Bunun (at least not with an AF construction).

(43) ma-sihal-ʔak
STAT-good-1S.F
'I am good'

(44) *ma-sihal-ʔak suʔu
STAT-good-1S.F 2S.N

We also saw that undergoer focus suffixes and causatisation has different effects on different types of verbs. One has to conclude therefore that there are differences in the valency of these verb classes, but…

3.2. On the level of argument expression

3.2.1. Core vs. periphery

There is much to say for the analysis that the set of core arguments in Takivatan Bunun includes: agents, undergoers (patients, instruments and beneficiaries), and locative arguments. They contrast with place, time and manner arguments, which are all peripheral. Some reasons for this classification are:

(a) Core arguments fall under the scope of focus suffixes (this is even through for instruments and beneficiaries, although they need an additional PO prefix) and can therefore be the topic of a clause; peripheral arguments cannot be the topic of a clause.
(b) Core arguments can as a result be left-dislocated ('topicalised'); this is impossible for peripheral arguments.
(c) Non-focused personal pronouns are always in the neutral form, disregarding the type or argument they encode. In other words, there is no case distinction between different argument types that belong to the core.
(d) Focused personal pronouns are in the focused agent form when they are an agent and in the neutral form in all other cases. If this were to be used as evidence for a distinction between core and peripheral arguments, all undergoer arguments would be non-core, including patients.
(e) Peripheral arguments are always clause-final and occur after all core arguments.
(f) Peripheral arguments can be expressed by prepositional phrases (which historically derive from SVCs); core arguments cannot only be expressed by an NP.

(g) Some peripheral arguments can be expressed preverbally as an auxiliary construction; this is impossible with core arguments.

(h) If instruments or beneficiaries would be non-core, one would have to explain why they can be expressed in positions between the verb and patients, since the unmarked argument order would be:

V	AG	INSTR	BEN	PAT	LO
V	core	non-core	non-core	core	???

(i) If locative arguments would be non-core, one would have to explain how it comes that (i) they are different from peripheral place arguments and (ii) they can occur in the first position after the verb, as in (16).

The conclusion is that it is probably best to consider all arguments that can be the target of a focus suffix or of a patient orientation prefix to be core arguments of the clause. A result of this conclusion is that it gets very hard to determine exactly which arguments belong to the inherent valency of a verb (see also 3.3.1).

3.2.2. Restrictions on arguments

Restrictions on the number of arguments that can be explicitly expressed on one verb seem to be determined by criteria unrelated to valency. For instance, it is in most situations not advisable to express more than two arguments on the same verb. If two slots are already filled by non-focused arguments, it might therefore become impossible to explicitly express the focused argument of the clause.

(45) ispaluʔluʔ viaʔi bunun.

{is-pa-luʔluʔ}[-ʔak]	[bunun]$_{UN:PAT}$
INSTR-CAUS.DYN-wound-1S.F	people

‘Use this knife to wound a person.’ (TVN-xx2-008:40)

(46) *ispaluʔluʔak viaʔi bunun.

{is-pa-luʔluʔ}[-ʔak]$_{AG}$	[via-i]$_{UN:INSTR}$	[bunun]$_{UN:PAT}$
INSTR-CAUS.DYN-wound-1S.F	knife-PRT	people

(47) Makusiaʔak viati naʔispaluʔluʔ bunun.

{ma-kusia}[-ʔak]$_{AG}$ [via-ti]$_{UN:PAT}$
DYN-use-1S.F knife-DEF.REF.PROX

{na-is-pa-luʔluʔ} [bunun]$_{UN:PAT}$
IRR-INSTR-CAUS.DYN-wound people

'I use a knife to wound him.' (adapted from TVN-xx2-008:38)

(48) ispaluʔluʔak bunun.

{is-pa-luʔluʔ}[-ʔak]$_{AG}$ [bunun]$_{UN:PAT}$
INSTR-CAUS.DYN-wound-1S.F people

In other words, you sometimes have arguments that are semantically implied but cannot be expressed due to syntactic-pragmatic restrictions.

3.3. On the level of verbal morphology

3.3.1. Focus suffixes

Focus suffixes are a problem for imposing a traditional notion of transitivity on verbs and constructions, at least when you assume that they are not purely derivational and focus is not a mechanism that raises arguments from a peripheral position to a core position. If the focus system is an alternative to a nominative-accusative or an ergative-absolutive alignment system, there would be a ternary distinction between AG, UN and LO rather than a binary distinction between A/S and O or between A and S/O. Since most types of verbs can occur in three focus types, you would have to conclude that, for non-causative predicates:

- Dynamic events are typically ditransitive, since they can occur in AF, UF and LF and therefore take AG, UN and LO
- Stative events are either transitive or ditransitive, since the can occur in AF, LF and (much less commonly) UF
- Locative/directional events have the potential to be transitive, since they can occur in AF and UF (LF is very uncommon or even impossible)

An alternative interpretation could be that focus suffixes alter the valency of the verb. This is also problematic, because focus suffixes trigger a change in case (in pronouns) but never in argument order. Take for example (4) and (5) on p. 4. It would be strange to say that the agent a core argument in (4), but a peripheral argument in (5): it is in

no visible way demoted. Underlyingly, one could argue that it has changed from focused case to neutral case (cf. pronouns), but if case would be an indicator of which arguments belong to the valency of the verb, all neutral forms could be interpreted as peripheral arguments and that would be problematic.

A further complexity is the fact that UF forms with adjectives function very much like a causative and can introduce an agent/causer (see e.g. (10)).

3.3.2. Participant-orientation prefixes

The participant orientation prefixes INSTR *is-*, BEN *ki-* and RES.OBJ *sin-* could be interpreted as valency-changing devices, since they raise instruments, beneficiaries and resultative objects in what would be agent position of the neutral construction and topicalise them. However, (a) they do not really add any arguments to a construction (see e.g. (22)-(23)) and (b) they do not raise a peripheral to a core argument or demote core arguments to the periphery. They merely shuffle arguments around. Functionally, PO prefixes are quite similar to focus suffixes, but grammatically their behaviour is distinctly different. If they would considered to be focus-like, would this imply that instruments, beneficiaries and resultative objects (and other participants that can be fronted by other PO prefixes) all belong to the inherent valency of their target verbs and/or to the transitivity of the constructions in which they occur?

3.3.3. Causatives

Some of the behaviours of causatives potentially have implications for determining the valency of predicates. As we saw above, causatives very often do not introduce an explicit causer into the construction, although they can do so in certain situations.

Furthermore, it is quite usual for causative prefixes to be combined with UF *-un*. In fact, if one asks a native speaker for a causative equivalent of a predicate, they will invariably give the undergoer focus form (e.g. *pun-han-un* ‘be caused to go’ rather than *pun-han*, or *pi-sihal-un* ‘make beautiful’ rather than *pi-sihal*). This always leaves the agent of the neutral (non-causative) construction as an agent in the causative, and usually blocks the realization of an explicit causer.

Causative prefixes belong to a subclass of verbal prefixes that can be ellipted when they are recoverable from the context and, as we discussed above, it is possible to interpret some UF constructions as ‘short’ causatives’. This indicates (a) that causatives are no derivational markers and (b) that there is some interaction between causativisation and focus.

What does this tell us about the valency of causative constructions? Should they always be interpreted as having an implicit causer as part of their valency, even if it is impossible to express it?

4. Conclusion

It would be very hard to interpret transitivity in Takivatan Bunun in any traditional sense, i.e. as an opposition intransitive / transitive / ditransitive. This should be clear from the above. On the other hand, the fact that the transitivity value of verbs / predicates / constructions are hard to pin down does not imply that concepts like transitivity or valency are irrelevant in the language.

I would argue that it is probably best to analyse transitivity/valency not as a unitary grammatical principle, but rather consider it to be the complex result of a number of interacting subsystems of the grammar (focus, verbal prefixes, restrictions on argument realization), which sometimes reinforce each other and sometimes compete.

5. Glosses and abbreviations

5.1. Morphemic glosses

1I – first person inclusive
1S – first person singular
2P – second person plural
2S – second person singular
AF – agent focus
AFF – affected participant orientation
ALL – allative (movement toward)
ANAPH – anaphoric marker
BECOME – inchoative prefix
BEN – beneficiary orientation prefix
CAUS.ALL – causative form of an allative prefix
CAUS.DYN – causative form of the dynamic verbal prefix: *pa-*
CAUS.STAT – causative of stative prefix
COMPL – complementizer
DEF – definiteness marker
DEM – demonstrative
DIST – distal
DYN – dynamic verb marker
EMPH – emphatic marker
F – focused argument
HI.AG – prefix indicating high agency
INSTR – instrumental orientation prefix
IRR – irrealis marker
LF – locative focus
LNK – linker, general linking particle
MAKE – verbal prefix indicating an event of making or constructing
MED – medial
N – neutral form
NEG – negator
NFA – non-focused agent form
PersName – proper name, first name
M – male
F – female
POSS – possessive form
PROX – proximal
PRT – particle
PRV – perfective marker

PST – past/resultative marker
REF – referential definiteness marker
RES.OBJ – resultative object orientating prefix
S – singular
SIT – situational definiteness marker
STAT – stative verb marker
SUBORD – subordinator
UF – undergoer focus suffix
VIS – visual

5.2. Marking of arguments

$\{\ \}_n$ predicate; verb phrase
$[\ ]_m$ argument; noun phrase or phrase nested within an NP

AG – agent
AUX – auxiliary verb
CSE – cause
CSR – causer
LO – locative phrase
PLACE – place phrase
UN – undergoer, subtype left unspecified
UN:BEN – undergoer, beneficiary
UN:INSTR – undergoer, instrument
UN:PAT – undergoer, patient

6. Bibliography

Bloomfield, Leonard. 1917. *Tagalog Texts with Grammatical Analysis. Part II: Grammatical Analysis (University of Illinois Studies in Language and Literature III:3)*. Urbana, IL: University of Illinois.

CIP (行政院原住民族委員會). 2009. 《98 年 1 月台閩縣市原住民族人口》. [Transl: *Aboriginal Population of the Counties and Cities in Taiwan and Fujian, January 2009*, Council of Indigenous Peoples, Executive Yuan]. Available at: http://www.apc.gov.tw/, retrieved on 9 March 2009.

De Busser, Rik. 2009. *Towards a Grammar of Takivatan Bunun: Selected Issues*. PhD dissertation at the Research Centre for Linguistic Typology, La Trobe University, Bundoora.

LaPolla, Randy J. 2008. *Questions on Transitivity*. Paper presented at the RCLT Local Workshop on Transitivity, Research Centre for Linguistic Typology, La Trobe University, 21 August 2008.

Reid, Lawrence A. & Hsiu-Chuan Liao. 2004. A brief syntactic typology of Philippine languages, *Language and Linguistics* 5 (2), 433-490.

Ross, Malcolm David & Stacy Fang-Ching Teng. 2005. Formosan languages and linguistic typology, *Language and Linguistics* 《語言暨語言學》 6 (4), 739-781.