Some problems with transitivity in Takivatan Bunun (and possibly other languages)

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Takivatan is one of the five dialects of Bunun, an Austronesian language spoken in Taiwan. Like many Austronesian languages of Taiwan and the northern Philippines, it has rather peculiar argument alignment system, often referred to as a focus system or a Philippine-style voice system. This typically means that these languages have a more-than-binary alternation between alignment options, indicated by cross-referencing morphology on the verb and distinguishing between agent, undergoer, location, and sometimes circumstantial 'voices'. This poses a challenge to traditional views on transitivity and valency.

In this talk, I will give an overview of the morphological and syntactic mechanisms that influence argument expression and argument implication in Takivatan Bunun. I will argue that the interactions that exist between these mechanisms make it difficult to define Takivatan argument alignment in terms of traditional concepts of valency and transitivity. Finally, I will suggest a possible solution for this problem that builds on a modular and prototypical analysis.
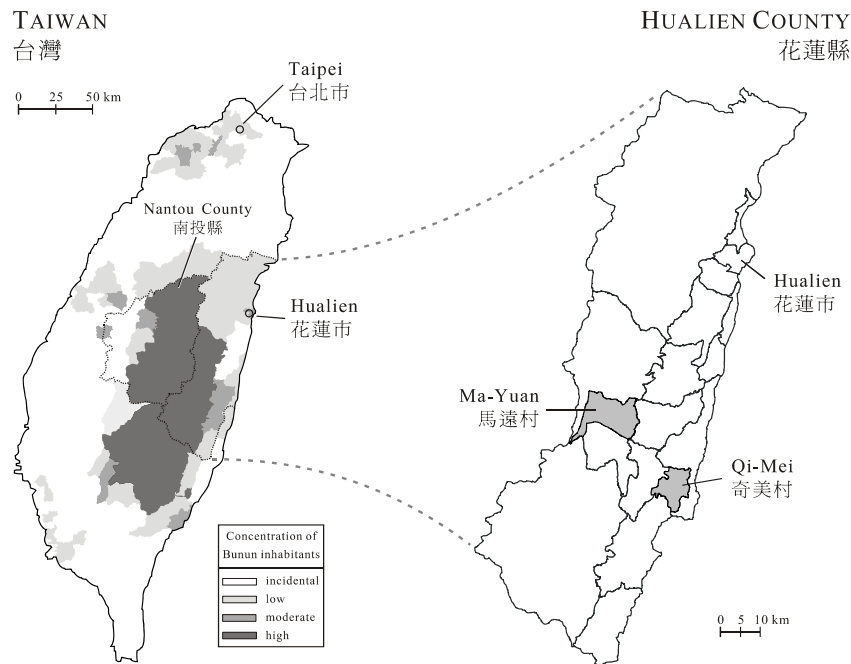
1. Introduction

General research background

- Descriptive linguistic approach
- Based on real-world text data from fieldwork (± 1 year)
- 'Basic linguistic theory' (see Dryer 2006, Dixon 2009)
    - Low-level grammatical descriptions
    - As 'theory-neutral' as possible
    - Typically bottom-up

Takivatan Bunun

- Austronesian, Taiwan
- One of the five Bunun dialects:
    - Southern: Isbukun
    - Central: Takivatan, Takbanuaz
    - Northern: Takibakha, Takituduh
- Bunun: ± 50,000 ethnic members
- Takivatan: ± 1600 ethnic member
- All Bunun dialects are endangered

Typological characteristics

- Verb-initial (~VAO)
- Agglutinative, predominantly head-marking
- Extremely rich verbal morphology (+200 affixes and counting)
- Open word classes: nouns, verbs, adjectives
- No adverbs, 'adverbial' concepts encoded as auxiliary verbs

Some definitions

Transitivity

The number of core arguments that are required by the verb.

Argument alignment

The morphological and syntactic mechanisms that influence the expression and semantic implication of core arguments in the predicate-argument complex

- – Argument realization
- – Argument implication

Philippine-style argument alignment

- 'Focus system' or 'Philippine-style voice/alignment system' (PAS)
- Austronesian focus ≠ pragmatic focus
- Complex cross-referencing morphology on the verb
- In many languages also nominal marking
- Typically minimal distinction between agent focus, undergoer focus and locative focus, sometimes circumstantial foci

- Reconstructed back to proto-Austronesian (see Ross 2009)

	Actor	*Patient*	*Location*	*Circumstance*
Realis	*M-STEM	*STEM-*ən*	*STEM-*an*	*Sa/Si*-STEM
Realis perfective	*M-<*in*>STEM	*<*in*>STEM	*<*in*>STEM-*an*	*<in>*Si*-STEM
Irrealis	CA-STEM	CA-STEM-*ən*	CA-STEM-*an*	*Sa/Si*-CA-STEM

- Examples from Paiwan (Ross 2002)

(1) t<əm>kəl   a   qala
     <AF>-drink   SPEC   stranger
     'The stranger will drink (something).'

(2) təkəl-ən   a   vaua
     drink-PF   SPEC   wine
     '(S)he will drink the wine.'

(3) təkəl-an   a   kakəsan
     dink-LF   SPEC   kitchen
     '(S)he will drink (the wine) in the kitchen.'

(4) si-təkəl   a   kupa
     CF-drink   SPEC   cup
     '(S)he will drink it from a cup.'

Some problems with PAS

- How many different PASs are there?
- Paradigm with prefixes, infixes and suffixes
- Cross-references arguments that in other languages would be oblique (location, beneficiary, instrument, …)
- Does not easily correspond to NOM/ACC or ABS/ERG alignment patterns
- Voice or no voice?

2.   Argument alignment in Takivatan

Modular approach:

If a system is to complex to analyse it in its entirety, break it apart in manageable subsystems ('modules').

Argument alignment modules in TVN:

- Focus suffixes: AF -*Ø*, UF -*un*, LF -*an*
- Participant orientation prefixes
- Argument order
- Pronouns
- Complexity restrictions

3. Core Arguments

- Agents
- Undergoers:
    - Patients
    - Instruments
    - Beneficiaries
    - Resultative objects
- Locative arguments

$$\Updownarrow$$

- Peripheral arguments: place, time, manner

Criteria

1. Core arguments fall under the scope of focus suffixes
2. Core arguments that are targeted by a focus suffix can be left-dislocated with the topicalizer a
3. There is no case distinction between different core arguments when they are not target by verbal morphology; they all appear in the neutral form
4. Cross-referenced free personal agent pronouns distinguish two forms: F for agents and the neutral form in all other cases. If this was evidence for identifying core arguments, all undergoer arguments, including patients, would be non-core
5. Peripheral arguments are typically clause-final and occur after all core arguments.
6. Peripheral arguments can be realised as NPs or PPs; the latter historically derive from SVCs. Core arguments can only be noun phrases.
7. Some peripheral arguments can be expressed preverbally as an auxiliary construction; this is impossible for all core arguments.
8. The unmarked argument order is
   V<AG<INSTR<BEN<PAT<LO
   If instruments and beneficiaries were non-core, one has to explain why they occur before patients.
9. Locative arguments can occur in immediate post-verbal position, unlike peripheral place arguments.

Problems with transitivity

- Beneficiaries, Instruments, and Locations are core arguments
- Potential for hepta- and hexatransitive constructions
- Does not correspond to traditional distinction between core and periphery, but makes most sense syntactically

4. Focus suffixes

- Topicalize a functional role
- Three focus types:
    - Agent focus (AF): *-Ø*
    - Undergoer focus (UF): *-un*
    - Locative focus (LF): *-an*

- Note: Other analyses typically incorporate prefixes and infixes in the focus system

(5) Siða malŋaŋausta maduqta.

siða　　[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)

(6) Siðaʔun asik.

siða-**un**　[asik]_UN

take-**UF**　shrub

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

(7) Maqtu pasiðaʔanin ŋabul, vanis.

maqtu　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)

Domain of use

- Alternation of three suffixes is most common on dynamic verbs expressing transitive-like concepts
- But can occur on almost any verb types (with the exception of LF on locative/directional verbs)
- In those cases, UF tends to have causative-like semantics
- Examples with adjectives:

(8) 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 [this one] well for his wife.'

(TVN-012-001:52)

(9) Masihalan dalaquna

ma-sihal-**an**　[**dalaq-un-a**]_LO

STAT-good-**LF**　**land-EMPH-LNK**

'The land there was good.' (TVN-012-002:167)

- Examples with locative/directional verbs:

(10) 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)

Problems with transitivity

▪ Problems with transitivity:
  - Tripartite distinction
  - Almost all focus types can occur on all verbs, albeit with a different semantic result
  - Are they voice? That would imply that:
    ▪ Dynamic events are typically ditransitive, since they can occur in AF, UF and LF
    ▪ Stative events are transitive or ditransitive, since they can occur in AF, LF and (less commonly) UF
    ▪ Locative events have the potential to be transitive, since they can occur in AF and UF

5.   Participant orientation prefixes

▪ Topicalize a functional role by raising it to agent position
▪ Prefixes:
  - Instrument orient. (INSTR): *is-*
  - Beneficiary orient. (BEN): *ki-*
  - Resultative object orient. (RES.OBJ): *sin-*
▪ Examples:

(11) Istamasaðan, udinunan

   is-tamasað-an   [udinun-an]LO

   INSTR-strong-LF   gather-LF

   'We were very fervent at the [prayer] gathering.' (TVN-008-002:221)

(12) Ukinʔak tilasa, na kisaivʔak su tilas.

   uka-in[-ʔak]   [tilas-a]

   NEG.have-PRV-1S.F   cereal-SUBORD

   na   **ki**-saiv[-**ʔak**]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)

(13) 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)

Participant orientation vs. focus

▪ Functionally similar to focus suffixes
▪ Syntactically different:
  - Can co-occur with focus (see ex. 8)
  - Whereas focus only changes pronominal case, PO prefixes also 'promote' the functional role under their scope to agent position.

(14) Masaivʔak su tilas.

{ma-saiv}[-**ʔak**]_{AG}   [**su**]_{UN:BEN}   [tilas]_{UN:PAT}
DYN-give-**1S.F**   **2S.N**   cereal
'**I** give **you** rice.' (constr.)

(15) Ukin ʔak tilasa, na kisaivʔak su tilas.

{uka-in}[-ʔak]   [tilas-a]
NEG.have-PRV-1S.F   cereal-SUBORD
na   {**ki**-saiv}[-**ʔak**]_{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)

Problems with transitivity

- Problems with transitivity:
  - Applicatives? Not really, because:
    - No promotion from periphery to core
    - No demotion of agent to periphery
    - Number of core arguments does not change
  - With focus suffixes part of a voice system? Then you could get hepta- or hexavalent constructions…

6.   Pronouns

	Bound		*Free*			
	Focused	*Non-foc. Ag.*	*Neutral*	*Focused*	*Locative*	*Possessive*
	F	NFA	N	F	LO	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	—	PROX isti			—
			MED istun			
			DIST ista			
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	—	—	PROX inti			—
			MED intun			
			DIST inta			

Free forms distinguish between

- Focused agent form:
  - Agents in focus position

(16) 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)

- Neutral form:
    - Agents when not in focus (i.e. in UF and LF)
    - Undergoers in focus position
    - Undergoers when not in focus
    - All left-dislocated elements whether in focus or not
    - Post-nominal possession

(17) 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)

(18) Ma, tupaun ðaku tu […]

    ma   tupa-un   **[ðaku]**_{UN:PAT} tu

    INTERR   tell-UF   **1S.N**   COMPL

    'Well, I was told: [Come with us.]' (TVN-008-002:71)

(19) Tuqluʔun ðaku qaimaŋsuð

    tuqlu-un   **[ðaku]**_{AG}   [qaimaŋsuð]_{UN:PAT}

    cover-UF   **1S.N**   thing

    'I cover the thing'

Bound forms distinguish between

- Bound forms:
    - Mark focused forms (typically agents, but sometimes undergoers)
    - *-uk* marks non-focused agents in UF constructions.

(20) maqunʔak ismut

    maqun[-ʔak]_{AG}   [ismut]_{UN:PAT}

    cut-1S.F   grass

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

(21) 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)

Problems with transitivity

- Free and bound pronouns have different splits:
    - Free: focused agent vs. everything else

- – Bound: everything focused vs. non-focused agent
- ▪ Neither corresponds to traditional NOM/ACC or ERG/ABS alignment splits
- ▪ … and neither to the distinctions made by suffixes and prefixes

7. Argument order and complexity restrictions

AG < INSTR < BEN < PAT < LO < PERIPHERAL

- ▪ But…
- ▪ It is rare to express more than **one** free argument on a single verb
- ▪ It is impossible to express more than **three** arguments on a verb. This is possible when:
    - – There is no ambiguity about the functional role of each participant
    - – Arguments are not too bulky; typically only one-word arguments are allowed
    - – More likely when the first element is a (bound) pronoun

- ▪ Rare example of a three-argument construction with three free arguments:

(22) 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)

- ▪ Solution to the complexity problem: auxiliaries and SVCs

(23) * pasimulʔas ðaku qaimaŋsuð?

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

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

(24) maqtuʔas pasimul ðaku qaimaŋsuð?

maqtu[-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)

(25) maqtuʔas pasimul qaimaŋsuð isaiv ðaku?

maqtu[-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)

Problems with transitivity

- ▪ It is not clear how these hard limits on the number of arguments in a clause influence (a) the valency of a verb and (b) the 'inherent' transitivity of a construction.

- Possibility to cross-reference arguments on the verb that **cannot** be expressed

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

(27) ispaluʔluʔak bunun.
    is-pa-luʔluʔ[-ʔak]$_{AG}$ [bunun]$_{UN:PAT}$
    INSTR-CAUS.DYN-wound-1S.F   people
    'I use this knife to wound a person.' (TVN-xx2-008:40)

(28) ispaluʔluʔ viaʔi bunun.
    is-pa-luʔluʔ   [via-i]$_{UN:INSTR}$ [bunun]$_{UN:PAT}$
    INSTR-CAUS.DYN-wound   knife-PRT   people
    'I use this knife to wound a person.' (TVN-xx2-008:40)

8.   So, what about transitivity?

- Each of the argument alignment modules pose problems
- Interactions between modules are complex (e.g. pronouns vs. focus suffixes vs. prefixes)
- None seem to fit into a traditional concept of transitivity (intrans./trans./ditrans. Opposition)
- None seem to fit into a NOM/ACC or a ERG/ABS alignment

- On the other hand, there are clearly restrictions on which arguments can be expressed, also in the lexicon.

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

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

9.   Modularity again

- Modularity is not just an analytical choice, it is a solution
- Transitivity as an epiphenomenon
- Fits in with a prototypical approach to transitivity (Hopper & Thompson 1980; Næss 2009)
- But that is for next time…

10. Bibliography

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

Dixon, R.M.W. 2009. *Basic Linguistic Theory* (3 vol.). Oxford: Oxford University Press.

Dryer, Matthew S. 2006. Descriptive theories, explanatory theories, and Basic Linguistic Theory. In Felix K. Ameka, Alan Dench & Nicholas Evans (Eds.), *Catching Language. The Standing Challenge of Grammar Writing*, p. 207-234. Berlin: Mouton de Gruyter.

Hopper, Paul J. & Sandra A. Thompson. 1980. Transitivity in grammar and discourse, *Language* 56 (2), 251-299.

Næss, Åshild. 2007. *Prototypical Transitivity* (Typological Studies in Language 72). Amsterdam: John Benjamins.

Ross, Malcolm David. 2002. The history and transitivity of western Austronesian voice and voice-marking. In Fay Wouk & Malcolm David Ross (Eds.), *The History and Typology of Western Austronesian Voice Systems*, p. 17-62. Canberra: Pacific Linguistics.

Ross, Malcolm David. 2009. Proto Austronesian verbal morphology: a reappraisal. In K. Alexander Adelaar & Andrew K. Pawley (Eds.), *Austronesian Historical Linguistics and Culture History: A Festschrift for Robert Blust*, p. 295-326. Canberra: Pacific Linguistics.

Taylor, John, R. 1995. *Linguistic Categorization: Prototypes in Linguistic Theory*, Second Edition. Oxford: Clarendon Press.