

Some problems with transitivity in Takivatan Bunun

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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

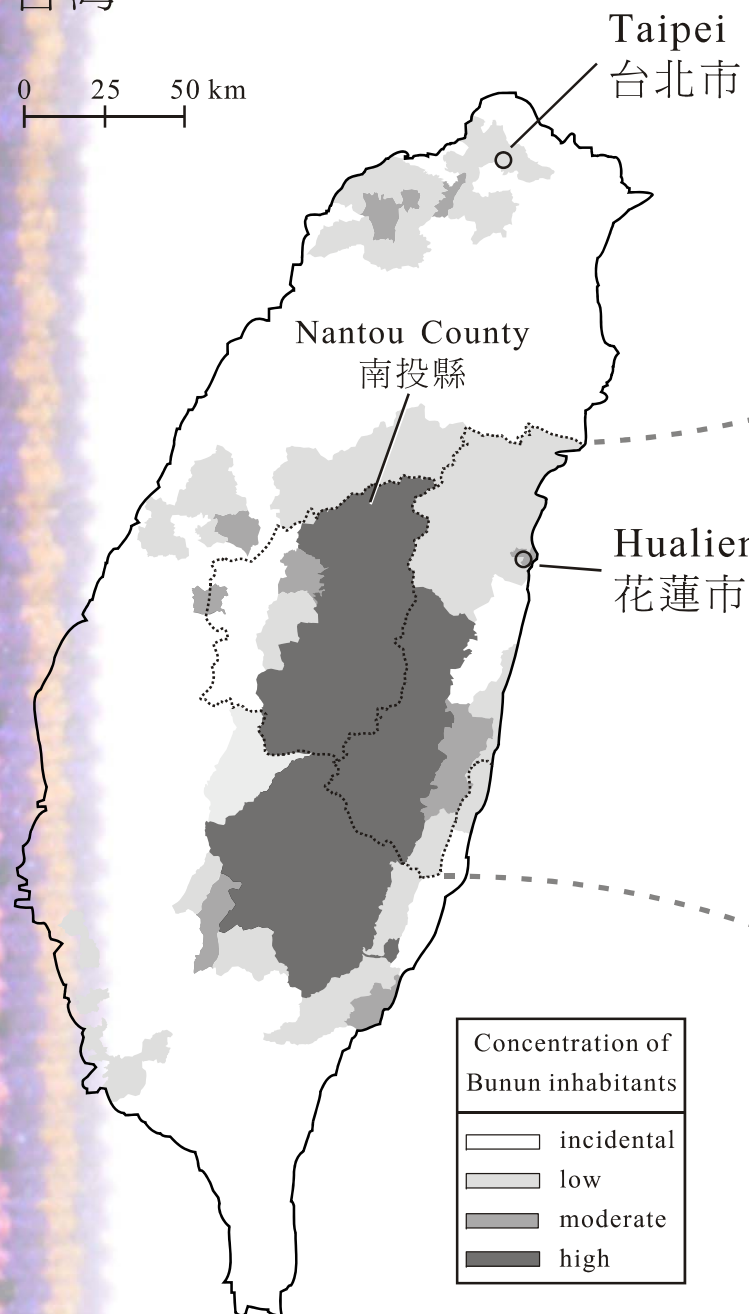


Takivatan Bunun

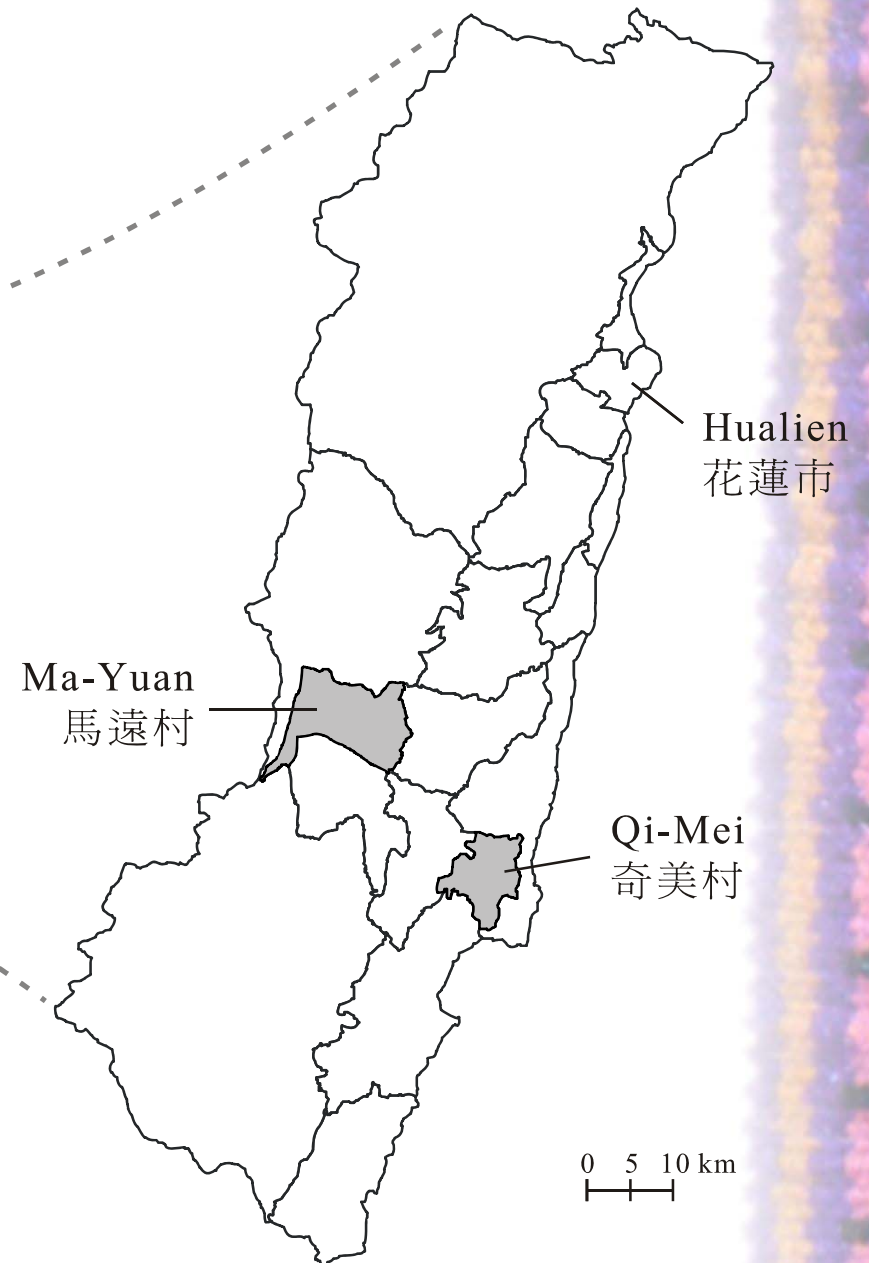
- Austronesian, Taiwan
- One of the five Bunun dialects:
 - Southern: Isbukun
 - Central: Takivatan, Takbanuaz
 - Northern: Takibakha, Takituduh
- Bunun: $\pm 50,000$ ethnic members
- Takivatan: ± 1600 ethnic members
- All Bunun dialects are endangered

TAIWAN
台灣

0 25 50 km



HUALIEN COUNTY
花蓮縣



Takivatan Bunun

- 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
- Ellipsis of arguments and even affixes

Transitivity

- Transitivity:

The number of core arguments that are required by the verb in a clause.
- 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

- Western-Austronesian languages of Taiwan, Philippines and some parts of Indonesia
- ‘Focus system’ or ‘Philippine-style voice/alignment system’ (PAS)
- Austronesian focus \neq pragmatic focus
- Complex cross-referencing morphology on the verb
- In many languages also nominal marking

Philippine-style argument alignment

- Typically minimal distinction between agent focus, undergoer focus and locative focus, sometimes circumstantial foci
- Reconstructed back to proto-Austronesian

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

Ross (2009)

Philippine-style argument alignment

- 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.’

Philippine-style argument alignment

- 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?

Argument alignment in Takivatan

- Modular approach:

If a system is too complex to analyse in its entirety, break it apart in coherent and manageable subsystems ('modules').
- Argument alignment modules in TVN:
 - Focus suffixes
 - Participant orientation prefixes
 - Argument order
 - Pronouns
 - Complexity restrictions

Core arguments

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



Peripheral arguments: place, time, manner

Core arguments

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.

Core arguments

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.

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.

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.

Core 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

Focus suffixes

- Topicalize a functional role
- Three focus types:
 - Agent focus (AF): $-\emptyset$
 - Undergoer focus (UF): *-un*
 - Locative focus (LF): *-an*
- Note: Other analyses typically incorporate prefixes and infixes in the focus system

Focus suffixes

- (5) Siđa malŋaŋausta maduqta.

siđa [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) Siđaʔun asik.

siđa-un [asik]_{UN}

take-UF shrub

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

- (7) Maqtu pasiđaʔanin ŋabul, vanis.

maqtu pa-siđa-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)

Focus suffixes

- 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 *-an* on locative/directional verbs)
- In these cases, UF *-un* tends to have causative-like semantics

Focus suffixes

- Adjectives:

- (8) Maqai masihal titi?a, sihalun aipi sia binanau?aǾ

maqai ma-sihal [titi-a]_{AG}

if STAT-good meat-SUBORD

sihal-un [aipi]_{AG} [sia binanau?aǾ]_{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)

Focus suffixes

- 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)

Focus suffixes

- 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

Participant orientation

- 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-*

Participant orientation

(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

- 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.

Participant orientation

(14) Masaivʔak su tilas.

{ma-saiv}[-ʔak] _{AG}	[su] _{UN:BEN}	[tilas] _{UN:PAT}
DYN-give-1S.F	<u>2S.N</u>	cereal
'I give <u>you</u> 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	<u>BEN</u> -give-1S.F	<u>2S.N</u>	cereal
'I don't have rice anymore, <u>you</u> give <u>me</u> rice!' (TVN-xx2-003:46)			

Participant orientation

- 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...

Pronouns

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

Pronouns

- Free forms distinguish:
 - 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)

Pronouns

- 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

Pronouns

(17) Mindaidað aipun ðaku.

min-daيداð [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

‘Uli gave me a call’ (TVN-008-002:71)

(19) Tuqluʔun ðaku qaimaṇsuð

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

cover-UF 1S.N thing

‘I cover the thing’

Pronouns

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

Pronouns

(20) maqunʔak ismut

maqun[-ʔak]_{AG} [ismut]_{UN:PAT}

cut-1 S.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-1 S.F dog

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

Pronouns

- 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

Argument order

AG < INSTR < BEN < PAT < LO
< PERIPHERAL

- But...

Complexity restrictions

- 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. Three arguments are 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

Complexity restrictions

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

(22) naʔiskalatun ǰaku tuqnaǰi asu.

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

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

Complexity restrictions

- Solution to the complexity problem: auxiliaries and SVCs

(23) * pasimulʔas ðaku qaimaŋsuðʔ

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

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

Complexity restrictions

(24) maqtuʔas pasimul ǰaku qaimaŋsuǰ?

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

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

(25) maqtuʔas pasimul qaimaŋsuǰ isaiv ǰaku?

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

i-saiv	[ǰaku] _{UN:BEN}
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AFF-give	1S.N
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‘Can you borrow me the thing?’ (TVN-xx2:004:5)

Complexity restrictions

- 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

Complexity restrictions

(26) *ispa lu? lu? ak via? i bunun.

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

(27) ispa lu? lu? ak bunun.

is-pa-lu? lu? [-?ak] _{AG}	[bunun] _{UN:PAT}
INSTR-CAUS.DYN-wound-1S.F	people

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

(28) ispa lu? lu? via? i bunun.

is-pa-lu? lu?	[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)

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./ditransitive opposition)
- None seem to fit into a NOM/ACC or a ERG/ABS alignment

So, what about transitivity?

- 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

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...

Thank you for
your attention!



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Appendix I:

Examples of focus systems

- Paiwan (Ross 2002)

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

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

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

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

Appendix II:

Too-many-arguments problem: exotic solution

- Verbalization of pronouns

(38) Manak qaimaṇsuðtia, sinsaiv aipi bunun.

ma-nak	[qaimaṇsuð-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)

Appendix III:

Interpretation of one-argument constructions

(32) ludaqun bunun

ludaq-un [bunun]_{AG}

beat-UF people

‘You are beaten by some person’ (never: ‘some person is beaten’) (TVN-xx2-001:139)

(33) Tuqlu?un qaimaṇsuð

tuqlu-un [qaimaṇsuð]_{UN}

cover-UF thing

‘The thing/object is/has been covered.’ (not: ‘something was covered by the object’) (TVN-xx2-001:159)