

The complexity of verbal morphology in Takbanuaz Bunun and limits on reliable inference

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Today

- Verb categories and subcategories in Formosan / Austronesian
 - As indicated by verbal affixes
- Verbal morphology in Takbanuaz Bunun
- How can we reliably determine the verb class of a verbal root?
 - Based on measurable evidence rather than intuition
- A failed experiment (or is it?)

Verb sub-categorization in Austronesian

- The dynamic/stative distinction
 - Basic distinction in Philippine-type languages
 - Morphologically and/or syntactically marked
 - E.g. Mantauran Rukai (Zeitoun 2000)
 - E.g. Mayrinax Atayal (Huang 2000)
 - But:
 - Paiwan: “There appears to be no clear-cut morphological or morphosyntactic distinction between verbs that typically have a dynamic meaning and those that typically have a stative meaning.” (Chang 2006:100)

Verb sub-categorization in Austronesian

- Importance of verbal morphology
 - Valency-changing derivational morphology
 - Voice and related phenomena
 - Causatives and applicatives
 - Reflexives and reciprocals
 - Derivational morphology explicitly indicating verb class
 - Dynamic and stative markers
 - Other classifying affixes
 - Inflectional morphology
 - (T)AM and related categories
 - Modality
 - Clause types

The Takbanuaz Bunun data

- Austronesian, Taiwan
- One of five dialects
- Data collection
 - One village, one knowledgeable consultant
 - Example elicitation starting from common verb roots
 - Directed questions about affix combinations



Daqvas ‘tall’

madaqvas	?pindaqvas	*paldaqvas
? daqvasun	tindaqvasin	taldaqvasin
mindaqvasin	*mundaqvas	daldaqvasan̥
*daqvasan̥	pindaqvasan̥	*isdaqvas
madaqvasan̥	pidaqvasan̥	ispindaqvas
*mindaqvasan̥	taldaqvas	*istaldaqvas
pindadaqvas		

- Potential distinctive
- Accepted form
- ? Contested form
- * Rejected form

(1) **ma-daqvas-a** Tian-un
STAT-high-LNK T.-MED

‘Tiang is very tall’

(2) **daqvas-un** ma-vilis
high-UV DYN-hang

‘Hang it up higher (on a hook)’

(3) ai maq a Qabiðan tu bukðav daiŋ?að-a
INTER DEFIN LNK Puli ATTR plains extremely-LNK
ma-daqvas-an
STAT-high-LV

‘As for the large plain of Puli, it is located very high.’

(4) **min-daqvas-in** uvað?að di
INCH-high-PRV child here

‘This child has grown very tall.’

(5) **tin-daqvas-in-a** uvað?að di
SUDDEN-high-PRV-LNK child here

‘This child has grown tall (suddenly).’

Comparison

- 2 Static verbs:
 - *salpu* 'sad'
 - *sihal* 'good'
- 2 Dynamic verbs of communication
 - *tusaus* 'sing'
 - *tupa* 'speak'
- 3 'prototypical' dynamic verbs
 - *ludaq* 'hit, beat'
 - *tas'i* 'build, make'
 - *kulut* 'cut'

Base	root	daqvas	salpu	sihal	tusaus	tas'i	tupa	ludaq	kulut
	STAT-root	ma-daqvas	ma-salpu	ma-sihal	*ma-tusaus				
	DYN-root				*ma-tusaus	ma-tas'i	*(ma-tupa)	ma-ludaq	ma-kulut
X	root-UV	?daqvas-un	*salpu-un	sihal-un		tas'i-un	tupa-un	ludaq-un	kulut-un
X	CV-root-UV				tusaus-un				
X	root-LV	*daqvas-an	*salpu-an	sihal-an	?tusaus-an	tas'i-an	?tupa-an		?kulut-an
X	PRF-root-LV							l-in-udaq-an	
X	IV-root	*is-daqvas			*is-tusaus		is-tupa	is-ludaq	is-kulut
X	IV-root-UV				*is-tusaus-un		?is-tupa-un		*is-kulut-un
X	IV-root-AV								*is-kulut-an
X	STAT-root-AV	ma-daqvas-an		ma-sihal-an					
Dyn.Caus	CAUS-root			*pa-sihal	pa-tusaus	pa-tas'i	pa-tupa		pa-kulut
X	CAUS-root-UV				pa-tusaus-un	?pa-tas'i-un	?pa-tupa-un	pa-ludaq-un	*pa-kulut-un
X	CAUS-root-LV				pa-tusaus-an	pa-tas'i-an			*pa-kulut-an
X	IV-CAUS-root						is-pa-tupa	is-pa-ludaq	is-pa-kulut
X	IV-CAUS-root-UV							*is-pa-ludaq-un	
X	DYN-CAUS-root						ma-pa-tupa	ma-pa-ludaq	ma-pa-kulut
X	DYN-CAUS-root-UV						ma-pa-tupa-un		ma-pa-kulut-un
X	DYN-CAUS-root-LV								ma-pa-kulut-an
X	IV-DYN-CAUS-root							is-ma-pa-ludaq	
Stat.Caus	STAT.CAUS-root		pi-salpu		*pi-tusaus				*pi-kulut
X	STAT.CAUS-root-UV			pi-sihal-un					
X	STAT.CAUS-root-LV	pi-daqvas-an		*pi-sihal-an					
X	ASSOC-root				ka-tusaus			*ka-ludaq	
Dyn.Assoc	ASSOC-root-UV		ka-salpu-un						
X	ASSOC-root-AV		ka-salpu-an						
X	IV-ASSOC-root		is-ka-salpu						
X	ASSOC-PST-root-AV		*ka-i-salpu-an						
Inch	INCH-root	min-daqvas(-ir)	min-salpu			?min-tas'i	*min-tupa	*min-ludaq	*min-kulut
X	INCH-root-UV		*(na-)min-salpu-un						
X	INCH-root-AV	*min-daqvas-an							

Comparison

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- 3 'prototypical' dynamic verbs
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Base	root	daqvas	salpu	sihal	tusaus	tas'i	tupa	ludaq	kulut
Inch.Caus	DYN-INCH-root		ma-pin-salpu						
	CAUS.INCH-root	?pin-daqvas	*pin-salpu	pin-sihal	*pin-tusaus	*pin-tas'i	pin-tupa		
	CAUS.INCH-CV-root	pin-da-daqvas							
	CAUS.INCH-PRF-root			pin-i-sihal					
	CAUS.INCH-root-UV			pin-sihal-un					
	CAUS.INCH-root-LV	pin-daqvas-an							
	TRANS-CAUS.INCH-root	is-pin-daqvas		is-pin-sihal			?is-pin-tupa		
	TRANS-CAUS.INCH-root-UV		*is-pin-salpu-un	is-pin-sihal-un					
	ASSOC.INCH-root				*kin-tusaus				
	RECIP-root		paka-salpu					paka-ludaq	
Deriv	SIN-root			sin-tusaus			sin-tupa		sin-kulut
	SIN-root-UV					*sin-tas'i-un	?sin-tupa-un		*sin-kulut-un
	SIN-root-LV					*sin-tusaus-i	sin-tas'i-an	*sin-tupa-an	*sin-kulut-an
	PAL-root	*pal-daqvas	*pal-salpu						
	PAL-root-av			pal-sihal-av					
	IV-PAL-root-av			is-pal-sihal-av					
	PALI-root					?pali-tusaus			
	PATI-root							pati-ludaq	*pati-kulut
	PATI-root-UV							*pati-ludaq-un	
	PATI-root-an							*pati-ludaq-an	
	IV-PATI-root							is-pati-ludaq	*is-pati-kulut
	IV-PATI-root-un							*is-pati-ludaq-un	
	IV-PATI-root-an							*is-pati-ludaq-an	
	PATIS-root								*patis-kulut
	PIS-root							*pis-ludaq	
	TA-root								*ta-kulut
	TA-root-UV								*ta-kulut-un
	TA-PRF-root-UV								*ta-i-kulut-un
	TAL-root	tal-daqvas(-in)	tal-salpu						
	IV-TAL-root	is-tal-daqvas							
	U-root-UV								*u-kulut-un
	U-root-LV								u-kulut-an
	TI-root							ti-ludaq	*ti-kulut
	SUDDEN-root	tin-daqvas(-in)	tin-salpu	tin-sihal	*tin-tusaus		tin-ludaq	*tin-kulut	
	SUDDEN-root-UV		tin-salpu-un						
	TRANS-RECIP-root		is-paka-salpu						
	ALL-root	mun-daqvas			mun-tusaus				*mun-kulut
	SA-root			*sa-tusaus					

The Takbanuaz Bunun data

- Morphology that is conceptually strongly associated with certain verb classes is not a good indicator for verb (sub)categorization
 - Voice → both stative and dynamic verbs / not consistent among members of a category
- A number of low-frequency prefixes tend to be indicative
 - AV causatives (but not UV and LV causatives) → *pa-* for dynamic verbs, *pi-* for stative verbs, but not allowed for all members.
 - *Tin-* ‘suddenly’ → stative (and *ludaq* ‘beat’)

The Takbanuaz Bunun data

- Not a single affix combination can occur with all members of a category
- The acceptability of affixes is often determined by the semantics of the root
 - *sihal-an* ‘good-LV’ but not *salpu-an* ‘sad-LV’
- Based on the fact that almost always exceptions can be found, this indicative force always appears to be a tendency rather than a law

Discussion

- Contrary to expectation, verbal morphology is not particularly useful to determine verb classes and subclasses straightforwardly and unambiguously
- Inherent unpredictability of verb classes
- Inherent unpredictability of verbal morphology in Austronesian
 - Inflection or derivation
 - Complexity of verbal morphology
 - Interaction between paradigms

Interactions between paradigms

- Rukai: “The morphological alternations that Mantauran Rukai dynamic/stative verbs exhibit [...] are not overtly complex. However, each in the light of the whole verbal paradigm and not be treated as independent linguistic facts.”
(Zeitoun 2000: 425)

Graded distinctions

- Atayal: “[...] because degrees of dynamicity (and stativity) of Mayrinax [Atayal] verbs are relative rather than absolute, a continuum with prototypical dynamic verbs and stative verbs appearing at the two extremes [is proposed]”
(Huang 2000: 386)

Subcategorization and semantics

- “... instead of relying on theoretically separate kinds of distributional statements such as ‘strict subcategorization features’ and ‘selectional features,’ one could take into account the semantic roles of all arguments of a predication”
(Fillmore 1982)
- The problem:
 - Austronesian voice and valency
 - Ellipsis and obligatoriness
 - Which arguments belong to a predication?

Discussion

- The need for reporting negative results
 - “Scientists have become so accustomed to celebrating only success that we’ve forgotten that most technological [and academic, RDB] advances stem from failure.” (Mehta 2009)
 - “The overall frequency of positive supports has grown by over 22% between 1990 and 2007, with significant differences between disciplines and countries.” (Fanelli 2012: 891)
 - How does this influence theory formation in linguistics?

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Thanks you!
Any questions?



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