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# Beyond constructions:

Takivatan Bunun predicate-argument structure,  
grammatical coherence, ~~and the nature of~~  
~~linguistic evidence~~



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# Introduction

- Bunun, Austronesian, Taiwan
- Five dialects:
  - Northern: Takibakha, Takituduh
  - Central: Takbanuaz, Takivatan
  - Southern: Isbukun
- Predicate-initial
- Complex verbal morphology

# Introduction

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# Philippine-type systems

“... a system combining verbal and sometimes nominal morphology that indicates a special relationship between the predicate and any of a number of (typically three to five) syntactic-semantic participant roles in the clause.”

*(De Busser, to appear;  
see French 1988)*

# Philippine-type systems

- ‘focus’, ‘voice’, ‘argument alignment’, ‘participant orientation’, ... (Blust 2002)
- More than binary opposition
  - Agent, Patient, Location, Instrument, Beneficiary, ...
- Implications for transitivity and valence?
- Syntactic or functional-pragmatic phenomenon?

# Takivatan argument alignment

- Verbal suffixes:

- Focus (AF/UF/LF)

(1) *na-ma-tasʔi-∅-ʔak*                      *busul*  
IRR-DYN-build-**AF**-1S.TOP    gun  
'I make a gun'

(2) ... *na*    *pa-tasʔi-un*  
so    CAUS.DYN-build-**UF**  
'(The thing is broken,) so I want to have it fixed.'

(3) *pa-tasʔi-an*  
CAUS.DYN-build-**LF**  
'I want to make it so that something stays in a fixed spot'

# Takivatan argument alignment

- Verbal prefixes (I):
  - Participant orientation (BEN/INSTR/...)

(4) *ki-saiv-ʔak*                      *qaimaŋsuð*  
**BEN-give-1S.TOP**    thing  
‘Somebody has to give me things.’

(5) *sin-su-suað*                      *bunuað*  
**RES.OBJ-REP-grow**    plum  
‘They had grown plums.’  
(Indicates that the plums are already on the tree)

# Takivatan argument alignment

- Verbal prefixes (II):
  - Internal temporal structure

(7) *ma-baliv-ʔak iðuq a min-puhuq*  
**DYN**-buy-1S.F orange LNK **INCH**-rot  
'I bought meat that had become rotten.'

(8) *nitu ma-naskal sadu-ki uskun-an*  
NEG **STAT**-happy see-DEF.SIT.PROX together-LO  
'I was not happy to see my companions do it like this.'

# Takivatan argument alignment

- Verbal prefixes (III):
  - Control (internal/external/joint)
- (6) *pa-tasʔi-un*  
**CAUS.DYN**-make-UF  
'I will have it fixed (by someone else).'
- (7) *ka-daŋað*                      *baðbað*  
**ASSOC.DYN**-help    have.conversation  
'I'll help you talk (by speaking in your place).'

# Takivatan argument alignment

- Personal pronouns

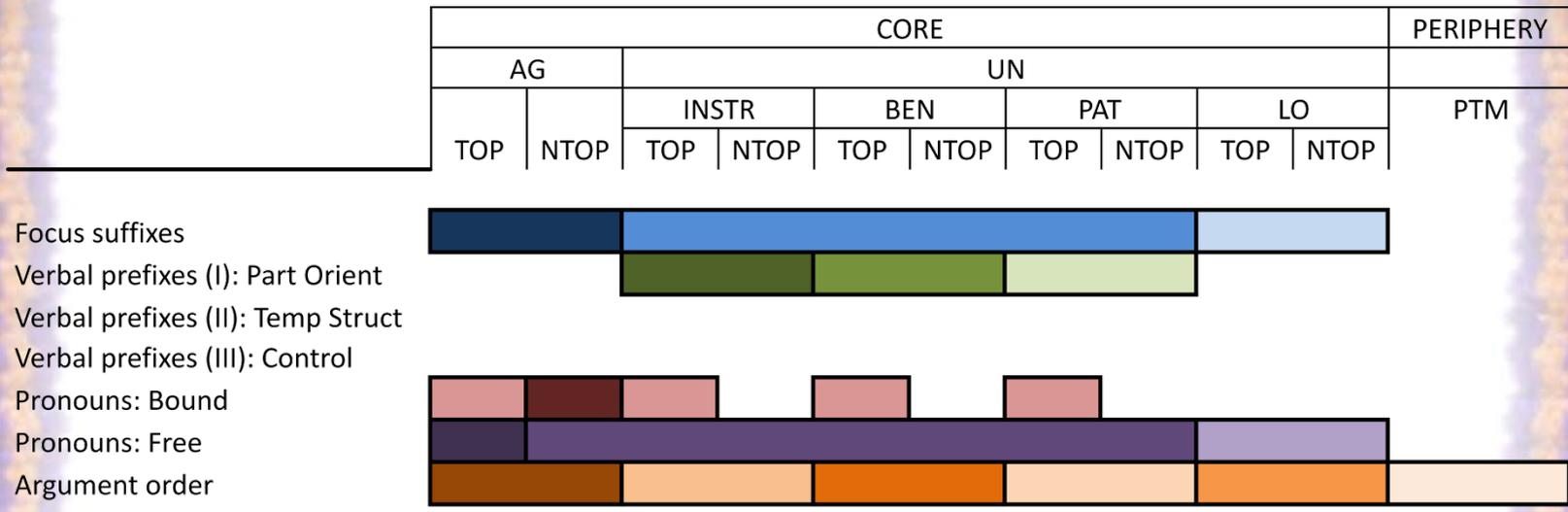
	Bound		Free	
	Topic (TOP)	Non-topical agent (NTOP.AG)	Neutral (N)	Topical agent (TOP.AG)
1S	-(ʔ)ak	-(ʔ)uk	ðaku, nak	sak, saikin
2S	-(ʔ)as	—	suʔu, su	—
1I	—	—	mita	ʔata, inʔata
1E	-(ʔ)am	—	ðami, nam	ðamu, sam
2P	-(ʔ)am	—	muʔu, mu	amu

# Takivatan argument alignment

- Free arguments
  - Max. 3
  - Fixed order

Verb < Agent < Instrument < Beneficiary  
< Patient < Location < Place/Time/Manner

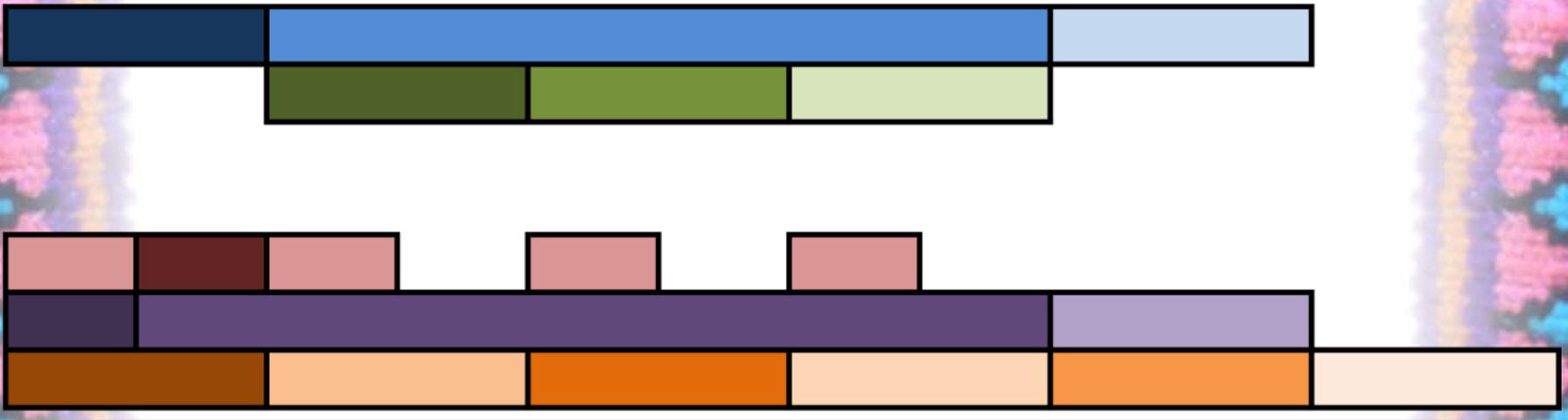
# Interim conclusion



- Different grammatical distinctions
- Sometimes clashing
- ⇒ This is not a single coherent voice system!

# Interim conclusion

CORE										PERIPHERY
AG		UN								
TOP	NTOP	INSTR		BEN		PAT		LO		PTM
		TOP	NTOP	TOP	NTOP	TOP	NTOP	TOP	NTOP	



# What does it all mean?

- Traditional explanation:
    - Active/passive analysis
      - AF: active
      - Other focuses: passive (*Bloomfield 1917*)
    - Ergative analysis
      - One unmarked voice, often the PF
      - Other voices are valency-changing derivations
        - AF: antipassive
        - LF, BF, ....: applicatives
- (Mithun 1994, and many others)*

# Construction grammar

- Focus is:
  - Argument alignment system:  
conventionalizes predicate-argument relationships
  - Not fully grammaticalized / not fully grammatically abstract
  - Conventionalization at the level of functional roles (AG, PAT, LO) rather than abstract syntactic categories (S, A, O)

# Construction grammar

**Grammatical roles**

St V O / Si V

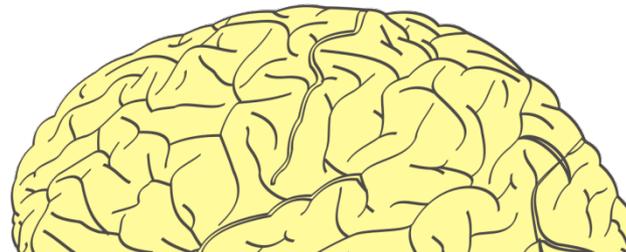
**Functional roles**

Event Act Pat Ben Instr Loc ...

**Conceptual roles**

Walking Walker ...  
Eating Eater Eaten ...

**Concepts**



# Construction grammar

Latin 

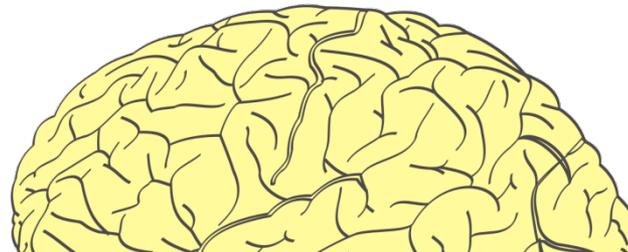
St V O / Si V

Bunun 

Event Act Pat Ben Instr Loc ...

Walking Walker ...  
Eating Eater Eaten ...

⋮



# Construction grammar

- Problem:
  - In its simplest form, the interpretation above presupposes the existence of a single coherent system
  - We saw that Takivatan predicate-argument structure consists of multiple subsystems that are partly clashing with each other.

# ... And Beyond

- The predicate-argument structure as a unitary grammatical system...
  - is an artifact of linguistic theory
  - does not correspond to cognitive reality
  - is partly incoherent

# ... And Beyond

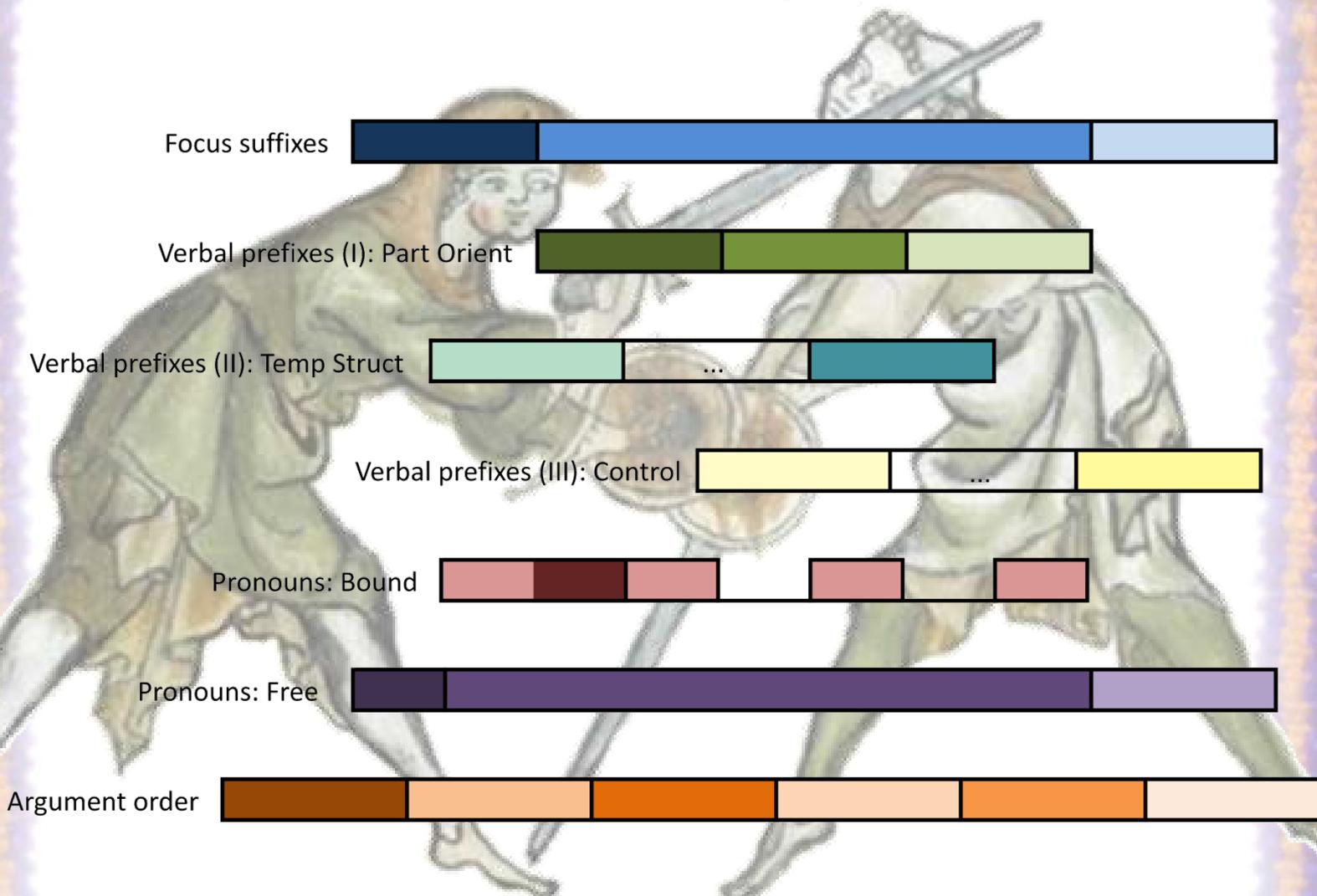
- Cooperation and competition in a modular complex system
  - Different grammatical subsystems
  - ... some of which cooperate with each other
  - ... some of which compete with each other
  - ... but which together fulfill a function perceived as coherent by the language users

# ... And Beyond

- Definition:

Modularity refers to the behaviour of complex systems to organise themselves into smaller subsystems which operate with a relative autonomy, i.e. the modules of such a system contain significantly more intramodular than intermodular relationships.

# ... And Beyond



# ... And Beyond

- Modularity
  - Naturally arises in complex adaptive systems (e.g. complex organisms; see Lorenz 2011)
  - Can account for partly incompatible subsystems

**≠ Innate language modules!!!**

= evolved internal organization in complex biological (and other?) systems

# Language evolution



# Conclusion

- Bunun predicate-argument structure is realized by multiple, partly incompatible subsystems
- $\Rightarrow$  Bunun voice/focus does not exist, except as a theoretical artifact
- Emergence can account for multiple voice distinctions
- Evolutionary modularity can account for the evolution of partly incoherent subsystems

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Uninaŋ  
miqumisaŋ!

