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Referential hierarchies in morphosyntax

description – typology – diachrony

EuroBABEL Collaborative Research Project

Cologne, Lancaster, Leipzig, Oregon, and Zurich

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The topic

Referential hierarchies

a.k.a.:

animacy hierarchy; empathy hierarchy; indexability hierarchy; hierarchy of ontological salience; nominal hierarchy; person hierarchy ...

1/2 > 3rd-person humans > other animates > inanimates

definite > indefinite specific > nonspecific

Referential hierarchies

- reflected e.g. in a preference for passive construction when the high-ranking participant is the patient:

I was crossing the street when ...

... *I was hit by a car.*

? ... *a car hit me.*

Referential hierarchies

- Morphosyntactic systems determined by referential hierarchies

  ("morphosyntax", here: formal features in a sentence that indicate "who does what to whom")

  basically three types:

  a) differential argument marking
  b) hierarchical agreement
  c) direct/inverse marking on verb

a) Differential argument marking

- e.g. Nepali: high-ranking patient is marked

mai-le	timro	ghar	dekhẽ.
1s-ERG	your	house	saw

'I saw your house.'

mai-le	timi-lāi	dekhẽ.
1s-ERG	you-DAT	saw

'I saw you.'

a) Differential argument marking

- e.g. Chintang: low-ranking agent is marked

akka(*-ŋa)	sencak	copt-u-he
1sg(*-ERG)	mouse.NOM	see-3sP-1sA.PST

'I saw the/a mouse.'

hana(-ŋa)	sencak	a-copt-e
2sg(-ERG)	mouse.NOM	2sA-see-3sP.PST

'You saw the/a mouse.'

huŋgo-ŋa	sencak	copt-e
3sg-ERG	mouse.NOM	[3sA]see-3sP.PST

'He saw the/a mouse.'

a) Differential argument marking

- e.g. Mapudungun: high-ranking patient is indexed on verb

leli-n	ruka	
look.at-1sg.IND	house	
'I looked at a house/at houses.'		

leli-fi-ñ	ñi	lamngen
look.at-3O-1sg.IND	my	sister
'I looked at my sister.'		

b) Hierarchical agreement

e.g. Carib of Surinam:

only SAPs are indexed on the verb

1 > 3	s-aroo-ya	y-aroo-ya
	1A-take-TNS	1P-take-TNS
	‘I take him.’	‘He takes me.’
2 > 3	m-aroo-ya	ay-aroo-ya
	2A-take-TNS	2P-take-TNS
	‘You take him.’	‘He takes you.’
1 = 2	k-aroo-ya	
	1/2-take-TNS	
	‘You take me.’ Or: 'I take you.'	

b) Hierarchical agreement

e.g. Jamul Tiipay ditransitives:
higher-ranking object is marked on verb

a. xikay ny-iny-ma
some 1/2-give-PROM
'I'll give you some.' (Goal)

b. nyaach maap Goodwill ny-iny-x
I you Goodwill 1/2-give-IRR
'I'm going to give you to Goodwill.' (Theme)

b) Hierarchical agreement

cf. Chintang:

agreement on verb allows specific reference

huĩsa-ŋa	Joge	citthi	hakt-o-ko
DEM-ERG	J.[NOM]	letter	[3sA]send-him-NPST

‘He sends the letter to Joge.’

huŋgo	kam	citthi	hak-no
DEM[NOM]	friend[NOM]	letter[NOM]	[3sS]send-NPST

‘He sends letters to friends.’

c) Direct/inverse

e.g. Plains Cree: fixed affix slots, agent/patient roles indicated by separate morpheme

ni-wapam-a-w

1-see-DIRECT-3

‘I see him.’

ni-wapam-ekw-w

1-see-INVERSE-3

‘He sees me.’

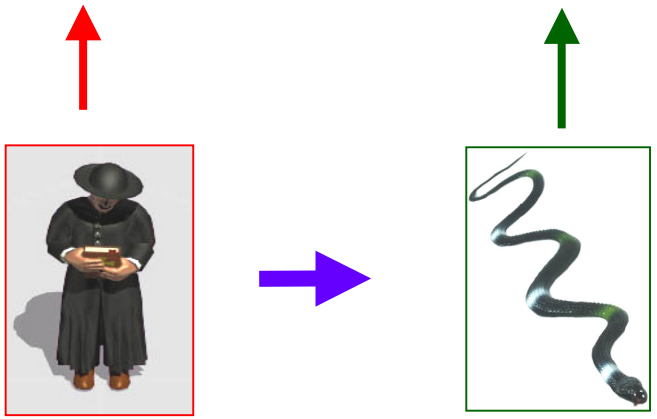
(Dahlstrom 1991: 36, 38; morphological representation)

c) Direct/inverse

e.g. Movima: fixed word order, agent/patient roles indexed on verb

'The/a priest killed the/a snake.'

tikoy	***-na***	*kus*	*pa:'i*	*kos*	*mimi:di*
kill	-DIRECT	the/a	priest	the/a	snake



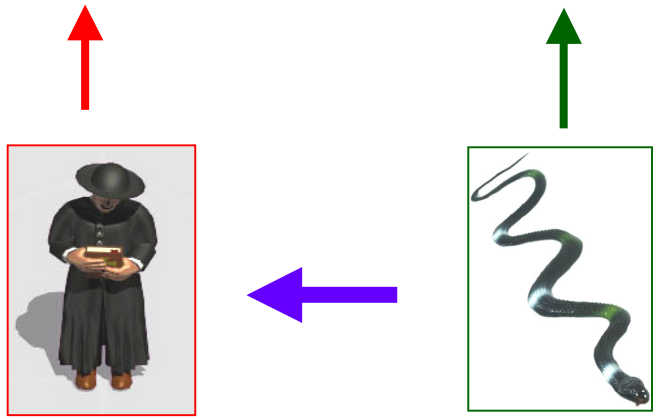
[+ human] [- human]

c) Direct/inverse

e.g. Movima: fixed word order, agent/patient roles indexed on verb

'The/a snake killed the/a priest.'

tikoy	***-kaya***	*kus*	*pa:'i*	*kos*	*mimi:di*
kill	-INVERSE	the/a	priest	the/a	snake



[+ human] [- human]

Referential hierarchies in morphosyntax

	High	Low
Differential Argument Marking	Case-marking on Patient	Case-marking on Agent
	Patient agreement	Agent agreement ?
Hierarchical Marking	Case-marking Agent or Patient, whichever is higher Case-marking Theme or Goal, whichever is higher ?	
	Agreement w/ Agent or Patient, whichever is higher Agreement w/ Theme or Goal, whichever is higher	
Direct/Inverse Marking	← ergative — — absolutive →	
	← inverse — — direct →	

Research questions

Research questions

- How can these systems be dealt with in terms of morphosyntactic typology, which takes as its basis the encoding of roles (agent and patient)?
- One or several hierarchies, and if several, how do they interact?
- How do hierarchical systems develop historically, and how do they interact with role-based systems?
- In how far are the patterns caused by an underlying cognitive principle rather than being the results of historical accidents?

Problems

- Many claims are made about referential hierarchies, while many relevant systems are still insufficiently explored

- Large-scale corpus research is needed to fully understand the factors that underlie the systems in question

- Hierarchically based systems are attested in highly endangered languages (Amerindian, Tibeto-Burman, Australian): data are still scarce

Our approach

The team

IP 1, U Leipzig:	Balthasar Bickel
	Eva van Lier (postdoc, shared with IP 3)
	Robert Schikowski (PhD student)
	and cooperative researchers:
	Alena Witzlack-Marakevich (postdoc)
	Sabine Stoll (senior researcher)
	Tyko Dirksmeyer (PhD student)
	Taras Zakharko (PhD student)
IP 2, U Oregon:	Spike Gildea
	Joana Jansen (postdoc)

The team

IP 3, U Cologne:	Katharina Haude
	n.n. (PhD student, as of January 2010)
	Jan Menge (student assistant)
IP 4, U Lancaster:	Anna Siewierska
	Eva van Lier (postdoc, shared with IP 1)
IP 5, U Zurich:	Fernando Zúñiga
	Alexandra Herdeg (student assistant)

Our approach

- discourse
- diachrony
- typological distribution

Our approach

- Corpus and field data:
  - Chintang (Kiranti, Nepal):
    unique agreement patterns that point at yet undescribed hierarchy effects; comparison to Nepali (IP 1)
  - Sahaptin (Sahaptian, USA):
    complex interaction of head and dependent marking (IP 2)
  - Movima (isolate, Bolivia):
    counter-universal hierarchy effects on syntax (IP 3)
  - Blackfoot (Algonquian, Canada):
    yet unexplored syntactic hierarchy effects that deviate from other Algonquian patterns (IP 5)
  - Mapudungun (isolate, Chile):
    yet understudied hierarchy effects on syntax (IP 5)

Our approach

- multifactorial analysis of corpora:
  - corpus tagging for semantic and pragmatic effects
  - special attention to 3>3 constructions: hierarchies and voice (obligatory vs. optional constructions)
- special attention to three-participant-event expressions

→ this type of research is possible now because many corpora of endangered languages have been created recently (DoBeS, ELDP)

Our approach

- historical perspective:
  - comparative reconstruction:
    - Cariban
    - Sahaptian
    - Kiranti
    - Algonquian
  - attempt at internal reconstruction
    - Movima (isolate)

Our approach

- typological embedding:
  - integrated database on grammatical relations and ditransitive construction with particular attention to hierarchies (Lancaster & Leipzig)
  - questionnaires based on database and fieldwork
  - collaboration with typologists outside the CRP

Some expected results

- set of corpora structured according to clearly defined research questions
- detailed descriptions of specific hierarchy-based systems
- database providing cross-linguistic information
- explanations of typological distribution of hierarchy-based systems

RHIM and EuroBABEL

RHIM and EuroBABEL

- Possible contribution to other EuroBABEL projects
  - questionnaires on hierarchy effects
  - universally applicable tag set for hierarchies
  - adaptation of statistical modelling to sparse data with little-studied structures
- Possible input from with other EuroBABEL projects
  - methodology of corpus research
  - hierarchy effects in the languages studied in the other projects
  - exchange on electronic dissemination, technical tools

RHIM and EuroBABEL

- Shared problems
  - limited set of data
  - problems inherent to fieldwork on endangered languages (low speaker numbers, old age of speakers)

- A particular problem
  - theoretical approach is of restricted direct use for the needs of the speaker community, i.e. language maintenance or revitalization; still, long-term effects: creation of text corpora; help in translation issues

RHIM beyond EuroBABEL

- enhancement of knowledge on particular morphosyntactic patterns in endangered languages

- challenge to received assumptions about referential hierarchies in cognitive sciences

Thank you!