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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 dekhē.
1s-ERG your house saw
'I saw your house.'

mai-le timī-lāi dekhē.
1s-ERG you-DAT saw
'I saw you.'

a) Differential argument marking

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

akka(*-ηa)	sencak	copt-u-he
1sg(*-ERG)	mouse.NOM	see-3sP-1sA.PST
'I saw the/a mouse.'		

hana(-ηa)	sencak	a-copt-e
2sg(-ERG)	mouse.NOM	2sA-see-3sP.PST
'You saw the/a mouse.'		

hungo-ηa	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.’

hungo	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

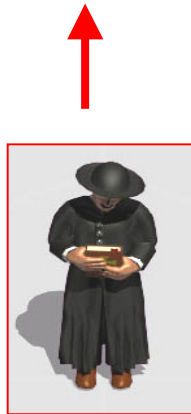
e.g. Movima: fixed word order, agent/patient roles indexed on verb

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

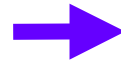
tikoy **-na**
kill -DIRECT

kus *pa:'i*
the/a priest

kos *mimi:di*
the/a snake



[+ human]



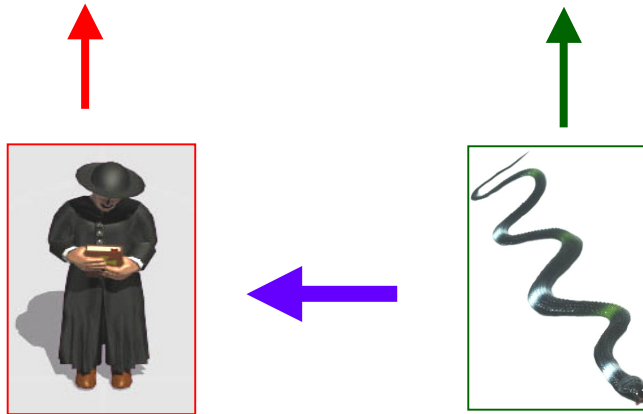
[- human]

c) Direct/inverse

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

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

<i>tikoy</i>	-kaya	<i>kus</i>	<i>pa:'i</i>	<i>kos</i>	<i>mimi:di</i>
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!