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Non-core participants in role-reference relations: Evidence from Northeastern Neo-Aramaic

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SFB 1287 Limits of Variability in Language

Background

- Valency-encoding devices
  - dependent marking: cases, adpositions
  - head marking: verbal indexes
  - (word order)

- Main function: to establish links between referents and argument roles,
  cf. Haspelmath (2022), among others

Background

- Two **logically** independent dimensions
  - valency-encoding devices
    < determined by the meaning of the verb
  - referential expressions: full NP, pronoun…
    < determined by the referential structure of discourse

ka	*d-ánnə*	*yatúymə …*	*+ávva*	*úpra*	*yavv-áx-xə*
to	OBL-DEM1/2.PL	orphan(M).PL	DEM2.M	earth(M)	give.PRS-SS.1PL-LS.3M

'Let's give this land to these orphans.'

  - Agent: verbal index (SS series)
  - Theme: unmarked full NP & verbal index (LS series)
  - Recipient: preposition *ka* & full NP

Background

- Two **logically** independent dimensions
  - valency-encoding devices
    < determined by the meaning of the verb
  - referential expressions: full NP, pronoun…
    < determined by the referential structure of discourse
- But **empricially**, they are interdependent
  - e.g. the Preferred Argument Structure hypothesis, including the following constraint:

    - Avoid lexical A's (DuBois 1987: 823)
  - also see (Haig, Schnell 2016) for an alternative interpretation in terms of the [+/- human] feature
  - mainly discussed for core arguments: A, S, O

Goals

- trace the interaction between subsystems in establishing referent-role associations
- identify flagging vs indexing asymmetries
  - cf. the universal association between head-marking and core as opposed to periphery (Nichols 1986: 75)
- **focus on non-core / non-canonical arguments**

(drawing on the data from an individual language)

Structure of the talk

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  - word order & unflagged non-core NPs
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Language

Glottolog (www.glottolog.org)

- **Afroasiatic** > **Semitic** > West Semitic > Central Semitic > Northwest Semitic > **Aramaic** > Middle-Modern Aramaic > Eastern Aramaic > Central Eastern Aramaic > North-Eastern Neo-Aramaic (NENA) [nort3241] > Assyrian Neo-Aramaic > dialects / languages

Language: fieldwork 2019-2022

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- et al.

Language: multiple migrations

Main groups:

- Christian Urmi (from Iran)
- Non-Urmi (from SE Turkey)

Language: typological profile

- No morphological case
- Flexible word order, mainly SOV / SVO
- Mixed (head/dependent) marking
- Non-finite forms are rare
- Almost non-existent passive

Language: grammar overview

Argument-coding devices

	flagging	indexing
A, S	no	yes
O	optional	optional
other	prepositions (but see below)	no (except some R arguments)

=> simultaneous differential object flagging and differential object indexing (Coghill 2014)

Language: grammar overview

Non-subjects: encoding possibilities

	O	R*	other
indexing only	yes	yes	no
unflagged NP + no indexing	yes	no	no**
unflagged NP + indexing	yes	no	no
preposition + no indexing	yes (*ka*)	yes (*ka*)	yes
preposition + indexing	no	no	no

* R = recipients in verbs of giving & similar arguments

** but see below

=> R patterns with O in terms of indexing,
but with obliques, in terms of flagging

Language: grammar overview

- Differential object indexing

bizal=əla	*dah-o*	*bab-o*	*maštiy-a-le*
go.PROG=3F	mother(F)-P.3F	father(M)-P.3F	**give_to_drink.PRS-SS.3F-LS.3PL**

‘She goes to give her parents to drink.’ (indexing)

garət	*də́mma*	*dary-at*	*gu*	*dəšta*
necessary	blood(M)	**pour.PRS-SS.2F**	in	field(F)

‘It is necessary that you pour blood in the field’ (no indexing)

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Data and methods

Corpus of NENA varieties spoken in Russia (Ovsjannikova et al. 2022–)

- oral texts
- small size: appr. 35000 word tokens
- ELAN-based: glosses, translations, etc.
- dialectal heterogeneity
- available online (https://nena-dict.ru/corpus)

Data and methods

Manual annotation of a sample of clauses

- clause ≈ syntactic unit headed by a finite verb
- 1340 clauses
- GRAID-inspired (Haig et al. 2021) annotation
  - clause type
  - argument role
  - referential expression(s)
  - adposition (when applicable)
  - linear position relative to the verb

Data and methods

Possible argument roles

- S: subject of an intransitive verb
- A: subject of a transitive verb
- O: direct object of a transitive verb
- E*: all other subcategorized** verbal dependents

* The tag “E” is used as in Dixon (2010: 116)

** “Subcategorized” is understood as in Nichols (1986: 106)

Data and methods

Clause types

tag	description
COP	copular clauses; existence is presupposed
EXI	existential sentences; existence is asserted
1	true monovalent verbs: ‘die’, ‘grow’
S_E	extended intransitives: ‘come (to)’, ‘look (at)’
TR	simple transitives: ‘kill’, ‘know’, ‘marry’
3	extended transitives (A, S + something else): ‘give’, ‘say’, ‘take’, ‘pour’

Data and methods

Clause types & possible argument roles

clause type	S	A	O	E
COP	yes			yes*
EXI	yes			yes*
1	yes			
S_E	yes			yes
TR		yes	yes	
3		yes	yes	yes

*Arbitrary decision, partly motivated by practical reasons

Data and methods

Referential expressions: annotated for every “mention”

tag	description
np&ind	full noun phrase and an index
np	full noun phrase but no index
pro&ind	unbound pronoun and an index
pro	unbound pronoun but no index
ind	verb index only
0	no NP, no pronoun, no index
cl	(complement) clause

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Clause types

type	N	%
COP	142	10.6%
EXI	43	3.2%
1	87	6.5%
S_E	402	30.0%
TR	354	26.4%
3	312	23.3%
Total	1340	100%

=> clause types involving non-core arguments cover more than a half of the sample

Mentions

type	N	mentions per clause	total
COP	142	2	284
EXI	43	2	86
1	87	1	87
S_E	402	2	804
TR	354	2	708
3	312	3	936
Total	**1340**		**2905**

Mentions

type	N	mentions per clause	total
COP			
EXI			
1	87	1	87
S_E	402	2	804
TR	354	2	708
3	312	3	936
Total	**1155**		**2535**

Existential and copular clauses are (temporarily) disregarded

Lexicality rate

clausal arguments are disregarded, indexes are irrelevant

	NP		reduced (pro & zero)	
	N	%	N	%
A	87	13%	575	**87%**
S	160	33%	327	67%
E	318	46%	380	54%
O	331	**63%**	197	37%

- Lexicality hierarchy: O > E > S > A

Lexicality rate

- Lexicality hierarchy: O > E > S > A

⇒Position of E does not correspond to its position on the GR hierarchy: S, A > O > E

⇒Goals and addressees are often topical & predictable and remain non-overt

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Interaction between arguments

Question

Are non-core dependents (E) just optional elements that do not affect the role-reference interplay among core arguments?

Method

compare lexicality rates for core arguments in clauses with and without explicit E's

Interaction between arguments

+və́r-ra	*gu*	*xa*	*óda*
enter.PST-LS.3F	in	one.M	room(M)

‘(She) went into one room’.

=> Explicit E, non-lexical S

gávr-o	*hi-l,*	*brun*	*de*	*báxta*
husband(M)-P.3F	come.PST-LS.3M	son(M)	OBL-DEM4.F	woman(F)

‘Her husband came, that woman’s son’

=> Implicit E, lexical S

Interaction between arguments

Expression of S arguments depending on the presence of E

		overt E	
		present	absent
overt S	N	97	116
	%	38%	52%
zero S	N	156	109
	%	62%	48%

(χ^2, $p < .01$)

overt = expressed by a full NP or a pronoun;
clausal (e.g. purposive) E's are disregarded

Interaction between arguments

Expression of core arguments depending on the presence of E

	overt E	
	present	absent
overt A	20%	26%
overt S	38%	52%
overt O	60%	67%

- Mantel-Haenszel chi-squared test for stratified data, $p < 0.001$

=> The presence of an overt E disfavours explicit mentioning of all types of core arguments

Interaction between arguments

Result: Overt E's disfavour explicit mentioning of all types of core arguments

Possible explanation: a trade-off scenario – conveying more information in one domain makes it possible to convey less information in the other domains (Koplenig et al. 2017)

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Word order

Only overt mentions (NPs, pronouns, clauses)

	preverbal			postverbal		total
	N	%		N	%	
A	151	94%		10	6%	161
S	184	73%		67	27%	251
O	227	49%		240	51%	467
E	104	25%		308	75%	412

Expected hierarchy: A > S > O > E

Unflagged non-core NPs

- Unflagged non-core NPs (E's) are possible
  - Reminder: overt E's are never indexed

Overt E-arguments
(copular sentences, interrogatives and clausal E's are disregarded)

	flagged (prepositions)	unflagged
N	338	65
%	84%	16%

- Three types of unflagged E's
  - unflagged locations and endpoints
  - possessors in predicative possessive constructions
  - some experiencers < possessors

Unflagged non-core NPs

- Unflagged locations and endpoints

édan	*muyyílun*	*+úmra*	*mudmə́xlun*
when	bring.PST-LS.3PL	church(M)	cause_to_lie.PST-LS.3PL

'When (they) brought (him) to the church and laid him down…'

- 53 occurrences in the corpus: 'house/home' (29), toponyms ('Jerusalem' etc.) (7), 'church' (5), 'place' (3), 'shop' (2), 'military service' (2), 'side' (1), 'town' (1), 'sofa' (1), 'water' (1), 'end' (1).

⇒These nouns are inherently locative

⇒Their role in the clause is fairly predictable, cf. (Creissels 2009; Stolz et al. 2014)

Unflagged non-core NPs

- Unflagged possessors: the basic predicative possessive strategy in NENA

xda	*baxta*	*ə́t-va-la*	*+ṭla*	*brunva*
one.F	woman(F)	EXI-RETR-LS.3F	three	son(M).PL

'One woman had three sons.'

- Historically, 'one woman, to her were three sons'
- Possessors display mixed subject/non-subject properties (Khan 2016a, 2016b, II: 70-79, 385-400, Say 2020: 669-674)
- Possessors are typically sentence-initial

=> lack of flagging is triggered by information structure and, ultimately, sentence planning

Unflagged non-core NPs

- Unflagged experiencers

ana	*xóš-i*	*tí-la*	*mən*	*+saz*	*d-+avun*
I	happiness(M)-P.1SG	come.PST-LS.3F	from	saz(F)	OBL-DEM4.M

'I like his saz', lit. 'I, my mood comes from this saz'

- Historically: extraposed possessors
- Synchronically: lexicalized pattern for some experiential predicates
- Mixed topic/subject properties (Khan 2016: Vol. II, 385-400; Say 2020: 669-674)

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Object indexing: the basics

- Object indexing is optional => differential object indexing (DOI)
- Object indexes are used in appr. 39% of clauses with overt object NPs

- Key factors are **topicality** and **animacy** (Ovsjannikova 2025), in line with typological generalizations (Schikowski, Iemmolo 2015)

DOI & word order

- Indexing is associated with OV, even if animacy and activation status are controlled for (Ovsjannikova 2025)
- The presence of postverbal groups is associated with OV
- Calculations on the next slide are based on OV clauses only

DOI & postverbal E's

	no indexing	indexing
Given DOs		
Postverbal E: yes	0	7
Postverbal E: no	5	41
Accessible DOs		
Postverbal E: yes	2	18 (0.9)
Postverbal E: no	24	79 (0.8)
New DOs		
Postverbal E: yes	6	9 (0.6)
Postverbal E: no	94	50 (0.4)

DOI & postverbal E's

	no indexing	indexing
Given DOs		
		7
		41
		18 (0.9)
		79 (0.8)
Postverbal E: yes	6	9 (0.6)
Postverbal E: no	94	50 (0.4)

- Higher proportion of indexing when postverbal E's are present (Cochran-Mantel-Haenszel test, $p \approx 0.02$)
- E's participate in discourse structuring of the clause

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Conclusions

- Dependent marking (adpositions) is the main device to signal argument (micro-)roles
- Clauses with non-core arguments are frequent
- Lexicality hierarchy: O > E > S > A
  - E's deviate from their position on the grammatical relations
- Overt E's disfavour explicit mentions of core arguments (A, S, O)

Conclusions

- E's favour postverbal positions
- Dependent marking on E's can be suspended
  - If E's role is predictable
  - in some sentence-initial E's => acquisition of core-argumenthood
- Postverbal E's are associated with OV and, within OV clauses, with a higher frequency of indexing for DO, participating in communicative structure
- Informally: non-core arguments are important

THANK YOU!

References

- Coghill, Eleanor. 2014. Differential object marking in Neo-Aramaic. *Linguistics*. 2014. Vol. 52(2). P. 335–364.
- Creissels, D. 2009. Spatial cases. A. Malchukov, A. Spencer (eds.). The Oxford Handbook of Case. Oxford: Oxford University Press. P. 609–625.
- Dixon, R.M.W. 2010. *Basic linguistic theory. Vol. 2. Grammatical topics*. Oxford: Oxford university press,
- Du Bois, John W. 1987. The discourse basis for ergativity. *Language*, 63, No. 4: 805-855.
- Haig, G. & Schnell, S. 2016. The discourse basis of ergativity revisited. Language 92(3). 591 - 618.
- Haig, G., S. Schnell, & N. N. Schiborr. 2021. Universals of reference in discourse and grammar: Evidence from the Multi-CAST collection of spoken corpora. In: G. Haig, S. Schnell, & F. Seifart (eds.). Doing corpus-based typology with spoken language corpora: State of the art. Honolulu: University of Hawai'i Press. 141–177.

References

- Haig, G., S. Schnell, & N. N. Schiborr. 2021. Universals of reference in discourse and grammar: Evidence from the Multi-CAST collection of spoken corpora. In: G. Haig, S. Schnell, & F. Seifart (eds.). *Doing corpus-based typology with spoken language corpora: State of the art*. Honolulu: University of Hawai'i Press. 141–177.
- Haspelmath, M. 2015. Transitivity prominence. In: Malchukov, A. L. & Comrie, B. (eds.), *Valency classes in the world's languages*. Vol. 1. Introducing the framework, and case studies from Africa and Eurasia (Comparative Handbooks of Linguistics 1/1), Berlin: de Gruyter Mouton. 131-147.
- Haspelmath, M. 2022. Valency and voice constructions. Ms.
- Khan, Geoffrey. 2016a. Left dislocation in North-Eastern Neo-Aramaic dialects. *Stellenbosch Papers in Linguistics Plus*. Vol. 50. 91–110.
- Khan, Geoffrey. 2016b. *The Neo-Aramaic Dialect of the Assyrian Christians of Urmi*. Vols. 1–4. Leiden; Boston: Brill.

References

- Koplenig, A., Meyer, P., Wolfer, S. & Müller-Spitzer, C. 2017. The statistical trade-off between word order and word structure. Large-scale evidence for the principle of least effort. *PloS One* 2017(12). e0173614. (https://doi.org/10.1371/journal.pone.0173614)
- Levshina, Natalia. 2019. Token-based typology and word order entropy: A study based on Universal Dependencies. *Linguistic typology* 23(3). 533-572. (https://doi.org/10.1515/lingty-2019-0025)
- Nichols, Johanna. 1986. Head-marking and dependent-marking grammar. *Language*. Vol. 62, No. 1: 56-119.
- Ovsjannikova, M., K. Kozhanov, N. Logvinova, A. Lyavdansky, A. Russkikh, S. Say, V. Shuvalova, E. Shvedova, and E. Zabelina. 2022–. Corpus of NENA varieties spoken in Russia. Available online at https://nena-dict.ru/corpus.
- Ovsjannikova, Maria, Kirill Kozhanov, Natalia Logvinova, Alexey Lyavdansky, Alina Russkikh, Sergey Say, Varvara Shuvalova, Elena Shvedova, and Elizaveta Zabelina. 2022–. Corpus of NENA varieties spoken in Russia. Available online at https://nena-dict.ru/corpus.

References

- Say, Sergey. 2020. Bivalent verbs' argument marking in the Northeastern Neoaramaic lects of Urmiya, Krasnodar Krai (in Russian). *Acta Linguistica Petropolitana*, Vol. XVI, Part 2. 654-689.
- Say, Sergey. Bivalent Verb Classes in the Languages of Europe: A Quantitative Typological Study. In: *Language dynamics and change*, 4 (1), 2014, 116–166.
- Stolz, Th., Lestrade, S. and Stolz, Ch. 2014. *The Crosslinguistics of Zero-Marking of Spatial Relations*, München: De Gruyter.