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Problems of polysynthesis, with special reference to the Northwest Caucasian languages

Lecture 4: Morphology-syntax interface in polysynthetic languages

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Recapitulation from Seminar 3

- The polysynthetic features of the Northwest Caucasian languages:
  - extensive polypersonalism facilitated by a rich and productive system of applicatives ("open head-marking");
  - "lexical affixes" of different kinds, primarily locative;
  - vestiges of noun incorporation and verb-root serialisation feeding locative affixation;
  - complex interplay of templatic and scope-based types of morphological organisation.

Recapitulation from Seminar 3

- A large part of the Nortwest Caucasian polysynthetic morphology serves the purposes of syntax:
  - pronominal affixes;
  - applicatives and “open head-marking”;
  - causative and other valency-changing mechanisms;
  - reflexive and reciprocal marking;
  - nominalisations and converbs;
  - relativisation.

Recapitulation from Seminar 3

- How does polysynthetic morphology interact with syntax?
- Is it true that complex morphology correlates with “simpler” syntax?
- Northwest Caucasian languages and beyond.

Roadmap

- Syntactic correlates of polysynthesis
- Case-marking in polysynthetic languages
- Reflexives and reciprocals in Circassian
- Complementation and (non)finiteness in polysynthetic languages
- Polyfunctional relativisation in NWC

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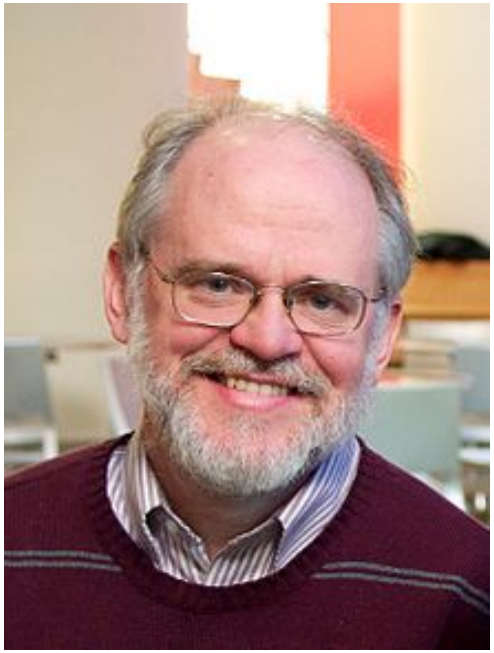
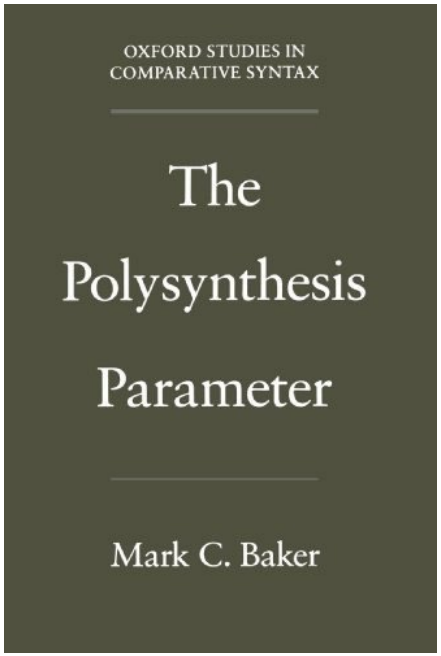
Syntactic correlates of polysynthesis

Mark Baker (1996): The Polysynthesis Parameter





Syntactic correlates of polysynthesis

Baker (1996: 17):

- Polysynthesis is defined as a "macroparameter" of the syntax-morphology interface, the so-called Morphological Visibility Condition.
- "A phrase X is visible for θ-role assignment from a head Y only if X is coindexed in the word containing Y via
  - agreement relationship, or
  - movement relationship [i.e. incorporation]"

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Syntactic correlates of polysynthesis

- For Baker, polysynthesis is a combination of head-marking and productive noun-incorporation.
- This definition excludes many traditional "polysynthetic" languages (e.g. Eskimoan or Northwest Caucasian).
- This theory has not gained much ground either in generative or functional-typological circles.
- Still, some of its corrollaries are worth exploring.

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Syntactic correlates of polysynthesis

Pronominal Arguments Hypothesis (Jelinek 1984):

- Argument positions in polysynthetic languages are occupied by pronominal affixes or incorporated noun roots.
- Since argument positions are unique, external nominals are adjuncts, not arguments.

Cf. critique of such view in Austin & Bresnan (1996), Kibrik (2011: Ch. 6), Haspelmath (2013).

Syntactic correlates of polysynthesis

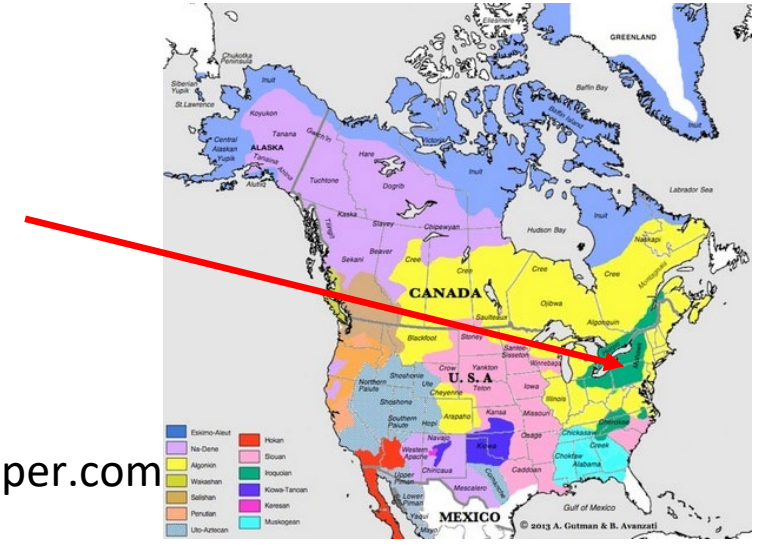
Pronominal Arguments Hypothesis implies nonconfigurationality (Hale 1983):

- free (discourse-based) order or noun phrases (cf. Mithun 1987);
- optionality of noun phrases;
- possibility of discontinuous noun phrases.

Syntactic correlates of polysynthesis

Cayuga (Iroquoian, USA) free word-order (Mithun 1987: 286):

(1) a. *Khyotro:wę́:* *Ohswe:kę́:* *ahǫwati:kwéni'*
Buffalo Six.Nations they.beat.them



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c. *Khyotro:wę́:* *ahǫwati:kwéni'* *Ohswe:kę́:*
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'The Buffalo beat the Six Nations.'
'The Six Nations beat the Buffalo.'

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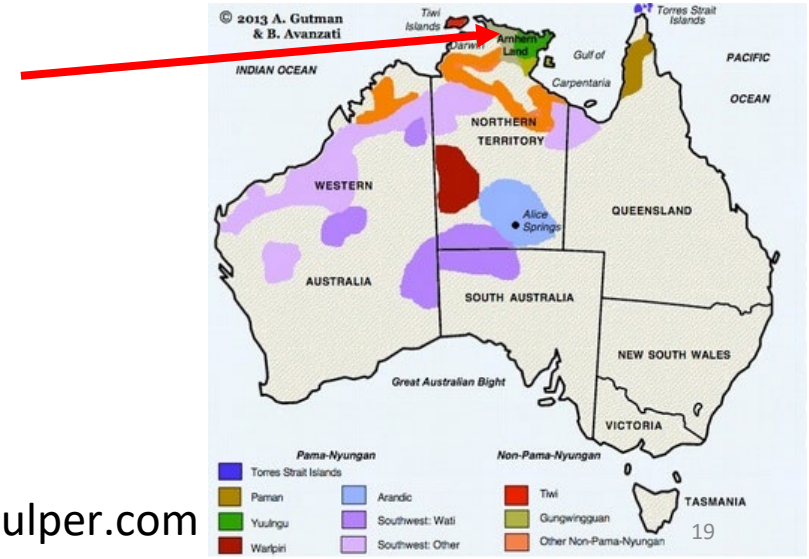
Syntactic correlates of polysynthesis

Bininj Gun-wok (Gunwinyguan, Australia) discontinuous NPs (Evans 2003: 243):

(2) *na-marngorl* *ga-garrme* *na-gimuk*
CL-barramundi 3-catch.NONPAST CL-big
'He is catching a big barramundi.'

CL – noun class marker



Syntactic correlates of polysynthesis

- In Northwest Caucasian languages:
  - word order within clauses is “free” with a clear preference for SOV;
  - order within NPs is rigid, discontinuity is prohibited.

Syntactic correlates of polysynthesis

Further corrollaries of MVC/PAH:

- absence of structural (grammatical) case-marking on nominals (Baker 1996: 129-132);
- absence of obligatory control constructions with infinitives (Baker 1996: 25, 472-491);
- morphological causatives only from unaccusative verbs (Baker 1996: 25, 348-374);
- absence of reflexive pronouns and nonreferential quantifiers (Baker 1996: 49-66).

Syntactic correlates of polysynthesis

Mohawk (Iroquoian, USA) clausal complement (Baker 1996: 25):

(3) *K-ate'nyʌ́t-ha'* *au-sa-ke-'sere-hta-hserúni-'*
1SG.S-try-HAB OPT-ITER-1SG.S-car-NML-fix-PUNC
'I am trying to fix the car.'

HAB – habitual
ITER – iterative
NML – nominalisation
OPT – optative mood
PUNC – punctual

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Syntactic correlates of polysynthesis

Mohawk (Iroquoian, USA) morphological causatives (Baker 1996: 351):

(4) a. *wa-ha-wisa-náwʌ-ht-e'*
FACT-3SG.M.S-ice-melt-CAUS-PUNC
'He melted the ice.'

b. **wa'-khe-ks-óhare-ht-e'*
FACT-1SG>3SG.F-dish-wash-CAUS-PUNC
intended 'I made her wash the dishes.'

CAUS – causative
FACT – factual

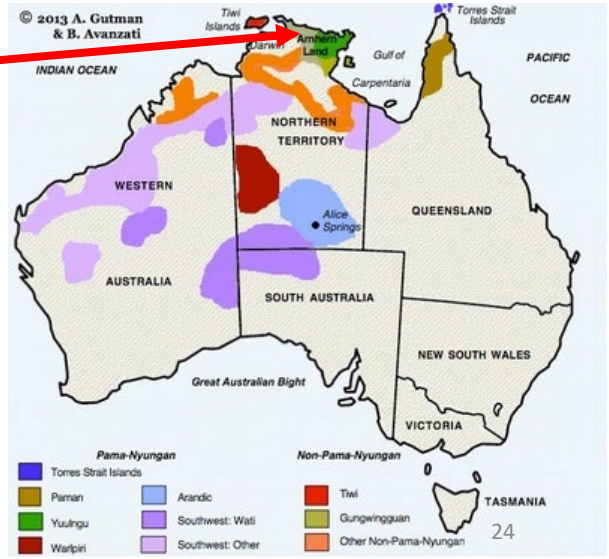
Syntactic correlates of polysynthesis

Bininj Gun-wok (Gunwinyguan, Australia) reflexive/ reciprocal construction (Evans 2003: 439):

(5) a. *gabandi-bu-n*
3PL>3PL-hit-NPST
'They ate hitting them.'

b. *gabani-bu-rre-n*
3DU-hit-RFL/REC-NPST
'Those two are fighting.'

NPST – non-past



Syntactic correlates of polysynthesis

Baker's polysynthetic features	**NWC**
free word order	(yes)
optional NPs	yes
discontinuous NPs	no
absence of controlled infinitives	(no)
restricted causativisation	no
absence of reflexive pronouns	(no)
absence of non-referential quantifiers	no

Syntactic correlates of polysynthesis

- Baker's theory of polysynthetis is based on his own earlier approach to incroporation and affixation (Baker 1988) as a syntactic phenomenon (head movement).
- Regardless of a particular framework, some poly-synthetic languages give evidence of apparently syntax-like processes of morphological composition (cf. Sadock 1980, 1985).

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Syntactic correlates of polysynthesis

Southern Tiwa (Kiowa-Tanoan, USA) noun incorporation (Allen et al. 1984: 293):

(6) a. **shut* *ti-pe-ban*
shirt 1SG>A-make-PST

b. *ti-shut-pe-ban*
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'I made the/a shirt.'

A – agreement class "A"

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Unmodified inanimate nouns are obligatorily incorporated

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'I bought the/a hat.'

A, B – agreement classes

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Incorporated nouns trigger verb agreement

A, B – agreement classes

Syntactic correlates of polysynthesis

Southern Tiwa (Kiowa-Tanoan, USA) noun incorporation (Allen et al. 1984: 297):

(8) *wisi* *bi-musa-tuwi-ban*
two 1SG>B-cat-buy-PST
'I bought two cats.'

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Incorporated nouns can take external modifiers

Syntactic correlates of polysynthesis

Southern Tiwa (Kiowa-Tanoan, USA) noun incorporation (Allen et al. 1984: 308):

(9) a. *bi-k'uru-tha-ba-'i* *i-k'euwe-m*
1SG>B-dipper-find-PST-SBD B-old-PRS
'The dipper I found is old.'

b. *i-k'uru-k'euwe-m* *bi-tha-ba-'i*
B-dipper-old-PSR 1SG>B-find-PST-SBD
lit. 'The dipper is old that I found.'

SBD – subordinator

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Incorporporated nouns remain visible for relativisation

Syntactic correlates of polysynthesis

- Most claims about non-trivial properties of the syntax of polysynthetic languages have been based on the data of one or few selected languages.
- The interpretation of such facts often depends on one's preferred framework.
- Whether any significant generalisations are possible remains an open question for an empirical study.

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Case-marking in polysynthetic languages

Kibrik (2012: 236):

- Semantic roles in head-marking languages “may be marked by linear positions in the verb’s morphological structure.”
- “[T]hese positions are functional analogs of case affixes in dependent-marking languages and can be understood and glossed in terms of cases: nominative, ergative, accusative, and the like”.

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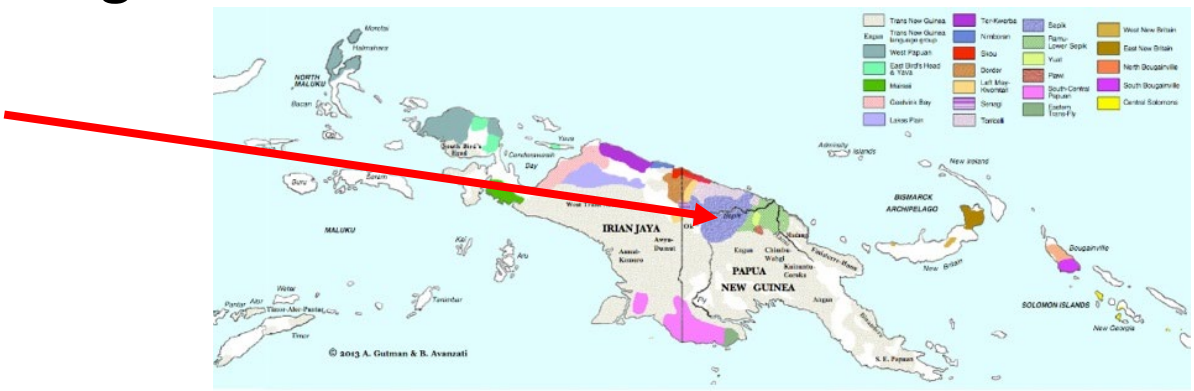
Case-marking in polysynthetic languages

- Yimas (Lower Sepik-Ramu, New Guinea) head-marking (Foley 1991: 94)

(10) *namat* *uraŋk* *narmaŋ* *kɨ-n-ŋa-r-umpun*
man.PL coconut woman 3SG.ACC-3SG.ERG-give-PRF-3PL.DAT

'The woman gave the coconut to the men.'



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Case-marking in polysynthetic languages

- In languages with “open head-marking” (Nichols 2017), like NWC, applicatives introducing oblique arguments can be seen as functional analogues of adpositions.

Case-marking in polysynthetic languages

- Navajo (Athabaskan, USA) incorporated postposition (Kibrik 2012: 230):

(12) *y-e-i-Ø-ní-lóóz*
3.OBL-to-3.ACC-3.NOM-PFV-lead
'S/he brought/led it to him/her.'

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Case-marking in polysynthetic languages

- Moreover, in some cases a clear diachronic link between adpositions and applicatives can be observed.

Case-marking in polysynthetic languages

Abkhaz instrumental postposition vs. applicative (Hewitt 1979a: 114):

(13)a. *a-žah^{w}a* *a-la* *sə-jə-sə-jṭ*
ART-hammer 3SG.IO.N-with 1SG.ABS-3SG.M.IO-hit-DCL

b. *a-žah^{w}a* *s-a-la-jə-sə-jṭ*
ART-hammer 1SG.ABS-3SG.IO.N-with-3SG.M.IO-hit-DCL
'I hit him with a/the hammer.'

ART – article
DCL – declarative
M – masculine
N – non-human

Case-marking in polysynthetic languages

- Many polysynthetic languages do not have any grammatical case-marking on core nominals.
- Still, some of them have peripheral case-marking of various types.

Case-marking in polysynthetic languages

Yimas: an all-purpose Oblique case

- location (Foley 1991: 165)

(14) *tnumut-ŋan ama-na-irm-n*
sago_palms-OBL 1SG.S-ASP-stand-PRS
'I am standing at the two sago palms.'

- time (Foley 1991: 169)

(15) *tmat-ŋan nma-kay-wark-wat*
day-OBL house-1PL.A-build-HAB
'We always build a house during the day.'

ASP – aspect, HAB – habitual

Case-marking in polysynthetic languages

Yimas: an all-purpose Oblique case

- instrument (Foley 1991: 165)

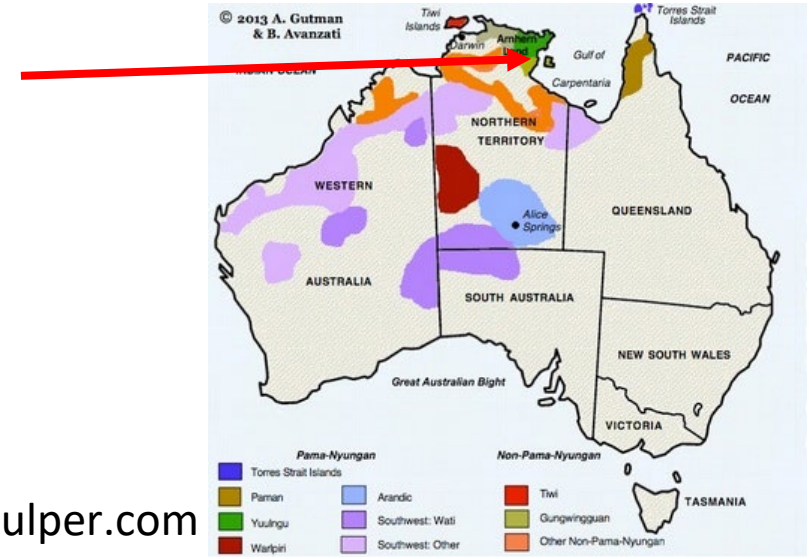
(16) *tktntrm-nan namarawt na-ŋa-tpul*
chair.DU-OBL person 3SG.A-1SG.O-hit
'The person hit me with two chairs.'

- complement of a postposition (Foley 1991: 172)

(17) *kawŋk-un akpɲan na-na-irm-n*
wall-OBL behind 3SG.S-ASP-stand-PRS
'He is standing behind the wall.'

Case-marking in polysynthetic languages

- Nunggubuyu (a.k.a. Wubuy; Gunwinyguan, Australia; Heath 1984: 199-216): a rich system of semantically specialised peripheral cases.



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Case-marking in polysynthetic languages

- Nunggubuyu peripheral cases (Heath 1984: 199):

-wuy	Allative-Dative
-wala	Ablative
-waj	Pergressive
-yungguyung	Purposive
-ruj	Locative
-miri	Instrumental
-mira:dhu	Originative
-yi:	Similative
-yinyung	Relative

Case-marking in polysynthetic languages

- Many head-marking and polysynthetic languages in fact show case-marking of core nominals.
- In some of these languages, the subsystems of head- and dependent-marking are clearly independent of each other.

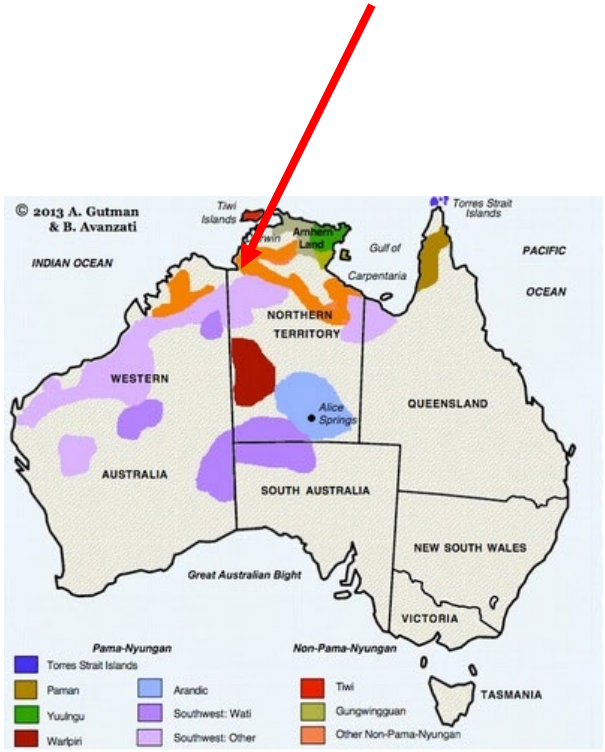
Case-marking in polysynthetic languages

Murriny Patha (Southern Daly, Australia; Walsh 1976: 270-271; glossing and transcription adapted):

(18)a. *ŋayi* *pam-ŋkaɖu*
1SG(ABS) 1SG.S+AUX.PRF-see
'I was looking around.'

b. *ɲiɲi* *tam-ŋkaɖu*
2SG(ABS) 2SG.S+AUX.PRF-see
'You were looking around.'

AUX – fused auxiliary



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'I saw you.'

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Ergative-absolutive dependent-marking

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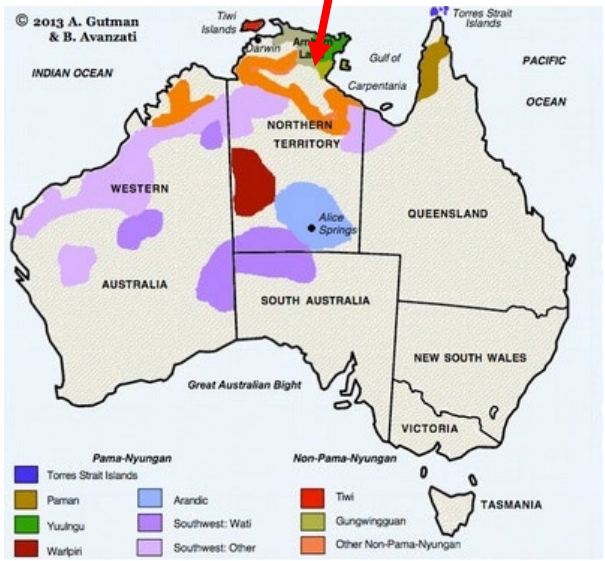
Nominative-accusative head-marking

Case-marking in polysynthetic languages

Ngandi (Gunywinguan, Australia; Heath 1978)

(19)a.	*ṇi-gurŋa-Ø-yuŋ*	*ŋanu-ṇa-čini*
	M.SG-moon-ABS-SUF	1SG>3SG-see-PRS
	‘I see the moon.’ (65)	
b.	*ṇi-ñara-ŋ-gič*	*ŋanu-ṇa-ni*
	M.SG-father-1SG-ALL	1Sg>3SG-see-PST
	‘I saw my father.’ (46)	

ALL – allative
SUF – suffix



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'I saw my father.' (46)

c. *ṇi-yul-ku* *ŋanu-bak-waṇʔ.ḏu-ŋi*
M.SG-man-DAT 1SG>3SG-BEN-look-PST.IPFV
'I was looking around for the man.' (81)

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b. *ṇi-ñara-ŋ-gič* *ŋanu-ṇa-ni*
M.SG-father-1SG-ALL 1Sg>3SG-see-PST
'I saw my father.' (46)

c. *ṇi-yul-ku* *ŋanu-bak-waṇʔ.ḏu-ŋi*
M.SG-man-DAT 1SG>3SG-BEN-look-PST.IPFV
'I was looking around for the man.' (81)

Case-marking in polysynthetic languages

Ngandi (Gunywinguan, Australia; Heath 1978)

(19)a. *ṇi-gurŋa-Ø-yuŋ* *ŋanu-ṇa-čini*
M.SG-moon-ABS-SUF 1SG>3SG-see-PRS
'I see the moon'

b. *ṇi-ñara-ŋ-gič*
M.SG-father-1SG-
'I saw my father'

c. *ṇi-yul-ku* *ŋanu-bak-waṇʔ.ḏu-ŋi*
M.SG-man-DAT 1SG>3SG-BEN-look-PST.IPFV
'I was looking around for the man.' (81)

One head-marking pattern corresponds to three different object cases

Case-marking in polysynthetic languages

- The Northwest Caucasian languages are highly consistent in their head-marking, distinguishing the Absolutive, the Ergative and the Indirect Object (Oblique) series of pronominal prefixes.

Case-marking in polysynthetic languages

- The Northwest Caucasian languages are highly consistent in their head-marking, distinguishing the Absolutive, the Ergative and the Indirect Object (Oblique) series of pronominal prefixes.
- However, there is a major split in dependent-marking between Abaza-Abkhaz vs. Ubykh and Circassian.

Case-marking in polysynthetic languages

- West Circassian (textual example)

(20) *w-ja-s-e-tə*
2SG.ABS-3PL.IO+DAT-1SG.ERG-DYN-give
'I give you to them (in marriage).'

- Abaza (textual example)

(21) *s-já-j-tə-n*
1SG.ABS-3SG.M.IO-3SG.M.ERG-give-PST
'He handed me over to [the chief].'

DYN – present tense of dynamic verbs

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DYN – present tense of dynamic verbs

Case-marking in polysynthetic languages

- Abkhaz (Hewitt 1979a: 36)

(22) *a-χáçа* *a-phʷás* *a-šʷq̇ʷá* *lá-j-te-jṭ*
ART-man ART-woman ART-book 3SG.F.IO-3SG.M.ERG-give-DCL

'The man gave the book to the woman.'

- West Circassian (constructed)

(23) *xʷəλfəʁe-m* *bzəλfəʁe-m* *txəλə-r* *r-jə-tə-ʁ*
man-OBL woman-OBL book-ABS 3SG.IO-3SG.ERG-give-PST

'The man gave the book to the woman.'

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'The man gave the book to the woman.'

Case-marking in polysynthetic languages

- Do the Absolutive vs. Oblique cases in Circassian simply match the Absolutive vs. Ergative + Indirect Object division of bound pronominals?
- Not really.

Case-marking in polysynthetic languages

- There are no overt 3rd person prefixes of the Absolutive series in Circassian.
- Only 3rd person nominals can take the Absolutive case suffix *-r*.

Case-marking in polysynthetic languages

West Circassian (constructed)

(24) a. *te* *tə-qe-ḳʷa-ʁ*
1PL 1PL.ABS-CSL-go-PST
'We came.'

b. *č'ale-xe-r* *qe-ḳʷa-ʁe-x*
boy-PL-ABS CSL-go-PST-PL
'The boys came.'

CSL – cislocative

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Head-marking: yes
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'The boys came.'

c. *te* *ç̌'ale-xe-m/*r* *tə-qe-ḳʷa-ʁ*
1PL boy-PL-OBL/*ABS 1PL.ABS-CSL-go-PST
'We boys came.' (Lander et al. 2021: 232)

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Nominals cross-referenced by overt Absolutive prefixes are in the Oblique case

Case-marking in polysynthetic languages

West Circassian word order in internally-headed relative clauses (Lander 2010, 2012: 251-252):

- The internal head of the relative clause (marked by the Adverbial case) cannot linearly separate the Absolutive-marked nominal from the predicate of the relative clause.
- No such restrictions on the position of the Oblique-marked nominals.

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Case-marking in polysynthetic languages

West Circassian (Lander et al. 2021: 228):

(25) *təʁʷaḳʷ-ew dəŝe-r zə-ʔe-pə-teqʷə-ʁe-r*
thief-ADV gold-ABS REL.IO-hand-LOC-disperse-PST-ABS
'the thief who dropped the gold'

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gold-ABS thief-ADV REL.IO-hand-LOC-disperse-PST-ABS
'id.'

(26) *thamate-m qebar-ew q-ə-ʔʷe.te-š'tə-m*
chief-OBL news-ADV CSL-3SG.ERG-tell-FUT-OBL
'the news that the chief would tell'

Case-marking in polysynthetic languages

- Evidence for the structural nature of case-marking in Circassian (cf. also Ershova 2019, 2021).
- Evidence for nominals in Circassian (at least those in the Absolutive case) being arguments, not adjuncts.

Roadmap

- Syntactic correlates of polysynthesis
- Case-marking in polysynthetic languages
- Reflexives and reciprocals in Circassian
- Complementation and (non)finiteness in polysynthetic languages
- Polyfunctional relativisation in NWC

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Reflexives and reciprocals in Circassian

Baker (1996: 41-53, somewhat simplifying):

- since nominals in polysynthetic languages are adjuncts, they are not subject to the Binding theory;
- therefore, polysynthetic languages lack “true” reflexive and reciprocal pronouns;
- instead, they employ verbal reflexive/reciprocal markers that render the verbs intransitive.

Reflexives and reciprocals in Circassian

- The Northwest Caucasian languages, in particular, Circassian, do not fit well into this picture.

Letuchiy 2007, 2012, Ershova 2019, 2023 on West Circassian

Reflexives and reciprocals in Circassian

West Circassian reflexives (Letuchiy 2012: 342):

- transitive verb, ERG>ABS

(27)a. *wə-sə-wəpsə-ʁ*
2SG.ABS-1SG.ERG-shave-PST
'I shaved you.'

b. *zə-sə-wəpsə-ʁ*
RFL.ABS-1SG.ERG-shave-PST
'I shaved (myself).'

Reflexives and reciprocals in Circassian

West Circassian reflexives (Ershova 2023: 18):

- transitive verb, ERG>IO

(28)a. *wəne-r* *s-fe-p-ṣ̂ə-ʁ*
house-ABS 1SG.IO-BEN-2SG.ERG-make-PST
'You built a house for me.'

b. *wəne-r* *zə-fe-p-ṣ̂ə-žʼə-ʁ*
house-ABS RFL.IO-BEN-2SG.ERG-make-RE-PST
'You built a house for yourself.'

RE – refactive

Reflexives and reciprocals in Circassian

West Circassian reflexives (Letuchiy 2012: 344):

- intransitive verb, ABS>IO

(29)a. *tə-wə-šʼə-gʷəpša-ʁ*
1PL.ABS-2SG.IO-LOC-forget-PST
‘We forgot about you.’

b. *tə-zə-šʼə-gʷəpša-ʁ*
1PL.ABS-RFL.IO-LOC-forget-PST
‘We forgot about ourselves.’

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Agent/subject orientation

Reflexives and reciprocals in Circassian

West Circassian reciprocals (Ershova 2023: 18):

- intransitive verb, ABS>IO

(30)a. *tə-qə-ẑʷ-d-e-ŝʷe*
1PL.ABS-CSL-2PL.IO-COM-DYN-dance
'We are dancing with you.'

b. *tə-qə-ze-d-e-ŝʷe*
1PL.ABS-CSL-REC.IO-COM-DYN-dance
'We are dancing with each other.'

Reflexives and reciprocals in Circassian

West Circassian reciprocals (Ershova 2023: 18):

- transitive verb, ERG>IO

(31)a. *wəne-xe-r* *ŝʷ-fe-t-ʂə-ʁ*
house-PL-ABS 2PL.IO-BEN-1PL.ERG-make-PST
'We built houses for you.'

b. *wəne-xe-r* *ze-fe-t-ʂə-žʼə-ʁ*
house-PL-ABS REC.IO-BEN-2SG.ERG-make-RE-PST
'We built houses for each other.'

Reflexives and reciprocals in Circassian

West Circassian reciprocals (Ershova 2023: 29):

- transitive verb, ERG>ABS

(32)a. *tə-ŝʷ-λeʁʷə-ʁ*
1PL.ABS-2PL.ERG-see-PST
'You saw us.'

b. *tə-zere-λeʁʷə-žʼə-ʁ*
1PL.ABS-REC.ERG-see-RE-PST
'We saw each other.'

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Absolutive orientation

Reflexives and reciprocals in Circassian

- Reflexive and reciprocal affixes in Circassian occupy the same slots as the corresponding personal affixes and do not decrease the verb's valency (Lander & Letuchiy 2017).
- Reflexive and reciprocal affixes are subject to the same binding conditions as corresponding free pronouns in other languages (Ershova 2019, 2023).
- Morphologically-bound anaphors.

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Complementation and non-finiteness

Baker (1996: Ch. 10):

- "true" polysynthetic languages cannot have "true" non-finite clauses with PRO subjects, since these are precluded by the Morphological Visibility Condition requiring all arguments to be formally expressed on the verb.

- Cf. Mithun (1984) in a very different framework

Complementation and non-finiteness

Instead, polysynthetic languages encode inter-clausal relations by means of

- juxtaposition of apparently independent clauses;
- finite subordination with non-declarative moods;
- full-clause nominalisations;
- complex predicates with verb-root serialisation or affixation (“morphologically bound complement-ation”, Maisak 2016, Panova 2018b, 2020).

Complementation and non-finiteness

Nunggubuyu (a.k.a. Wubuy; Gunwinyguan, Australia; Heath 1984: 583, cf. Baker 1996: 459) clause juxta-position:

(33) *ngawu-nganjbandi:-’ nganj-ja:-ri:*
1SG>3SG-want-NONPST 1SG-go-FUT
‘I want to go.’, lit. ‘I want it, I will go.’

Complementation and non-finiteness

Classical Nahuatl (Uto-Aztecan, Mexico; Launey 2011: 320, 33, cf. Baker 1996: 466) nominalisation:

(34) *ō-Ø-mitz-ilhui'* [*in* *ti-c-chīhua-z*]
PST-3SG.S-2SG.O-tell ART 2SG.S-3SG.O-make-FUT
'He told you to make it.'

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'He told you to make it.'

(35) *Ø-qui-tlazòtla* [*in* *Pedro*]
3SG.S-3SG.O-like ART Pedro
'S/he loves Pedro.'/'Pedro loves him/her.'

Complementation and non-finiteness

Southern Tiwa (Kiowa-Tanoan, USA; Frantz 1993: 12) morphologically bound complementation by verb-root serialisation:

(36) *ka-na-mukhin-kum-p'ay-ban*
2SG>A-PREF-hat-buy-forget-PST
'You forgot to buy a hat.'

PREF – prefix with an unclear function

Complementation and non-finiteness

Chippewa (Algonquian, USA; Jacques 2023, ex. (1)) morphologically bound complementation by affixation:

(37) *ni-mawi-kaazo-min*
1-cry-SIMUL-1PL.INDEP
'We (excl.) pretended to cry.'

INDEP – independent order
SIMUL – simulative

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Complementation and non-finiteness

Some counterexamples to Baker's claims:

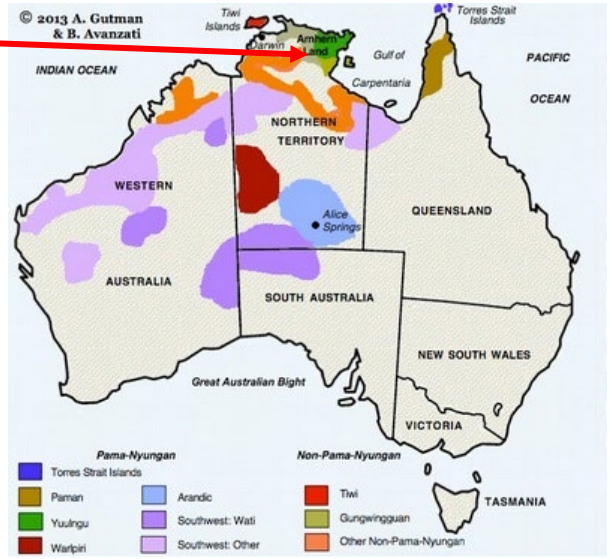
- non-finite verbal forms in some polysynthetic languages of Australia (Nordlinger & Saulwick 2002; Evans 2006);
- non-finite verbal forms in Northwest Caucasian.

Complementation and non-finiteness

Rembarrnga (Gunwinyguan, Australia; Nordlinger & Saulwick 2002: 186, 196) infinitives

(38)*nginy-waralh-miny* *guwa* *nginy-ro-ngæ*
1SG>2SG-ask-PST.PFV PURP 2SG-go-INF
'I asked you to go.'

PURP – purposive connector



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(39)*jurla* *nga-ma-ngara* *guwa* *rdom-Ø-gan*
water 1SG>3SG-get-FUT PURP drink-INF-DAT
'I'll fetch some water for him to drink.'

Complementation and non-finiteness

- Rembarrnga has infinitives both with and without pronominal indexes, and according to Nordlinger & Saulwick (2002), both types are clearly non-finite.

Complementation and non-finiteness

- Rembarrnga has infinitives both with and without pronominal indexes, and according to Nordlinger & Saulwick (2002), both types are clearly non-finite.
- Dalabon, another Gunwinyguan language (Evans 2006), also clearly marks non-finite verbal forms by means of special series or pronominal prefixes as well as affixal markers of subordination (including case suffixes).

Complementation and non-finiteness

- Northwest Caucasian languages possess a rich and variegated system of non-finite forms (i.e. verbal forms unable to head an independent clause):
  - masdars (nominalisations) with more or less nominal resp. verbal properties;
  - converbs;
  - relative forms.

Complementation and non-finiteness

- Most non-finite forms in NWC show exactly the same pattern of pronominal marking as finite forms occurring in independent clauses.
- Abaza

(40)a. *j-ŝ-á-s-hʷ-əj-ṭ*
3SG.N.ABS-2PL.IO-DAT-1SG.ERG-say-PRS-DCL
'I am telling you.' (constructed)

b. *j-ŝ-á-s-hʷə-rnəs* *j-s-taqá-ṗ*
3SG.N.ABS-2PL.IO-DAT-1SG.ERG-say-PURP 3SG.ABS-1SG.IO-want-NPST.DCL
'I want to tell you.' (textual example)

DAT – dative applicative, NPST – non-past, PURP – purposive converb

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Complementation and non-finiteness

- A special case are masdars, which are more similar to nouns.
- The Abkhaz masdar (Kulikov 1999):
  - never takes the absolutive prefixes;
  - never agrees with the subject argument, i.e. the one which is controlled from the matrix clause.

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Complementation and non-finiteness

Abkhaz (Kulikov 1999, transcription and glossing adapted):

- transitive verbs: agreement with P by means of IO (=possessor) prefixes

(41) *a-nxaɥə* *jə-ẑʷ* *a-ǯaχʷa-ra* *d-a.la.go-jt*
ART-farmer 3SG.M.PR-cow 3SG.N.PR-tie-MSD 3SG.H.ABS-start.PRS-DCL

'The farmer starts tying his cow.' (211)

PR - possessor

Complementation and non-finiteness

Abkhaz (Kulikov 1999, transcription and glossing adapted):

- bivalent intransitive verbs: agreement with the indirect object

(42) *a-pa* *jə-tah-ĉa* *rə-c.χraa-ra*
ART-son 3SG.M.PR-relative-PLH 3PL.PR-help-MSD
d-a.la.go-jt
3SG.H.ABS-start.PRS-DCL
'The son starts to help his relatives.' (212)

PLH – human plural

Complementation and non-finiteness

Abkhaz (Kulikov 1999, transcription and glossing adapted):

- monovalent verbs: no person marking

(43) *a-ç̌’ḳʷən a-ç̂ʷəwa-ra d-a.la.go-jṭ*
ART-boy ART-cry-MSD 3SG.H.ABS-start.PRS-DCL
‘The boy starts crying.’ (211)

- Agreement with the subject (lit. “the boy starts his-crying”) would be expected if the masdar were simply a nominalisation.

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Complementation and non-finiteness

- Regardless of the issues of (non-)finiteness, some polysynthetic languages show unexpected patterning of nominals in main and subordinate clauses.
- So-called "condition C" violations, whereby an argument shared between two clauses is overtly expressed only in the subordinate clause.
- Sandalo 1997 on Kadiwéu (Guaicuruan), Bruening 2001 on Passamaquoddy (Algonquian), Davis et al. 2007 on Nuuchahnulth (Wakashan), Davis 2009 on St'át'imcets (Salishan), Testelets 2009 on West Circassian.

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- So-called condition C violations, whereby an argument shared between two clauses is overtly expressed only in the subordinate clause.
- Sandalo 1997 on Kadiwéu (Guaicuruan), Bruening 2001 on Passamaquoddy (Algonquian), Davis et al. 2007 on Nuuchahnulth (Wakashan), Davis 2009 on St'át'imcets (Salishan), Testelets 2009, Ershova 2019 on West Circassian.

Complementation and non-finiteness

West Circassian (Ershova 2019: 211-212):

(44)a. *pŝaŝe-m* *qe.ŝʷe-n-ew* *r-jə-ʁe.ž'a-ʁ*
girl-OBL dance-MSD-ADV DAT-3SG.ERG-begin-PST
'The girl started to dance.'

b. *pŝaŝe-r* *qe.ŝʷe-n-ew* *r-jə-ʁe.ž'a-ʁ*
girl-ABS dance-MSD-ADV DAT-3SG.ERG-begin-PST
'id.'

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West Circassian (Ershova 2019: 211-212):

(44)a. *pŝaŝe-m* [∅ *qe.ŝʷe-n-ew*] *r-jə-ʁe.ž'a-ʁ*
girl-OBL ABS dance-MSD-ADV DAT-3SG.ERG-begin-PST

'The girl started to dance.'

b. ∅ [*pŝaŝe-r* *qe.ŝʷe-n-ew*] *r-jə-ʁe.ž'a-ʁ*
ERG girl-ABS dance-MSD-ADV DAT-3SG.ERG-begin-PST

'id.'

The full NP encoding the controller/controllee can be expressed either in the matrix or in the embedded clause

Complementation and non-finiteness

West Circassian (Ershova 2019: 214):

(45)a. [∅ *qe.ŝʷe-n-ew*] *zeč̣’e-m-jə* *r-a-ʁe.ž’a-ʁ*
ABS dance-MSD-ADV all-OBL-ADD DAT-3PL.ERG-begin-PST
‘Everyone started to dance.’

b. [*zeč̣’e-r-jə* *qe.ŝʷe-n-ew*] ∅ *r-a-ʁe.ž’a-ʁ*
all-ABS-ADD dance-MSD-ADV ERG DAT-3PL.ERG-begin-PST
‘id.’

This pattern obtains even when the nominal is quantified

Complementation and non-finiteness

- Such Condition C violations suggest that full NPs in these languages have a special status.
- However, it is unclear how such effects could be explained within Baker's theory of polysynthesis.
- Moreover, if these effects had followed from the Pronominal Arguments Hypothesis, we would expect to observe them in simple clauses, which is consistently not the case.

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Roadmap

- Syntactic correlates of polysynthesis
- Case-marking in polysynthetic languages
- Reflexives and reciprocals in Circassian
- Complementation and (non)finiteness in polysynthetic languages
- Polyfunctional relativisation in NWC

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Polyfunctional relativisation in NWC

- Relativisation in Abaza (elicited):

(46)*a-phʷəspa ç̂a [j-]lə-s-t-ṭ*
DEF-girl apple [3SG.N.ABS-]3SG.F.IO-1SG.ERG-give-DCL
'I gave the girl an apple'

(47)[*a-phʷəspa j-lə-s-tə-z*] *a-ç̂a*
DEF-girl REL.ABS-3SG.F.IO-1SG.ERG-give-PST.NFIN DEF-apple
'the apple that I gave to the girl'

F – feminine, NFIN – non-finite

Polyfunctional relativisation in NWC

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(48) [*ʂ̂a zə-s-tə-z*] *a-phʷəspa*
apple REL.IO-1SG.ERG-give-PST.NFIN DEF-girl
'the girl whom I gave an apple'

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'I gave the girl an apple'

(49) [*a-phʷəspa ç̣a lə-z-tə-z*] *a-č̣'ḳʷən*
DEF-girl apple 3SG.F.IO-REL.ERG-give-PST.NFIN DEF-youth
'the boy who gave an apple to the girl'

F – feminine, NFIN – non-finite

Polyfunctional relativisation in NWC

- Relative affixes in Northwest Caucasian occupy the same slots as the corresponding personal affixes.
- Morphologically bound resumptive pronouns (Lander & Daniel 2019).

Hewitt 1979b, 1979c, O'Herin 2002, Caponigro & Polinsky 2011, Lander 2010, 2012, Ershova 2021

Polyfunctional relativisation in NWC

- Abaza relativisation of adjuncts (textual examples):

(50) *h-ʔa-n.χa-wá* *á.pχʼa.rta*
1PL.ABS-REL.LOC-work-IPF DEF+school
‘the school where we work’

(51) *l-an* *d-an-ʕá.j-χ* *ásqan*
3SG.F.PL-mother 3SG.H.ABS-REL.TMP-come-RE DEF+time
‘(the time) when her mother came back’

IPF - imperfective

Polyfunctional relativisation in NWC

West Circassian relativisation of adjuncts employs "spurious" applicativisation (Lander 2012: 288-320, Arkadiev et al. 2023+):

(52)a. *qʷaʒ'-ew* *sə-qə-z-de-ḳʷe-ž'ə-ʁe-r*
village-ADV 1SG.ABS-CSL-REL.IO-LOC-go-RE-PST-ABS
'the village I returned to' (constructed)

b. *qʷaʒ'e-m* *sə-qe-(*de-)ḳʷe-ž'ə-ʁ*
village-OBL 1SG.ABS-CSL-(*LOC-)go-RE-PST
'I returned to the village' (constructed)

Polyfunctional relativisation in NWC

Headless relative clauses are widespread and have a range of different uses.

- referential NPs

West Circassian (text)

(53) *zə-λeʁʷə-xe-re-m* *ɑ-ʁe-ʂ̂eʁʷɑ-ʁ*
REL.ERG-see-PL-DYN-OBL 3PL.ERG-CAUS-wonderful-PST
'Those who saw him were surprised.'

Polyfunctional relativisation in NWC

Headless relative clauses are widespread and have a range of different uses.

- in pseudoclefts marking focus (Sumbatova 2009a,b)

Besleney Kabardian (text)

(54) *wə-z-ʁe-gʷəmeč̣’ə-r* *bze-ra*
2SG.ABS-REL.ERG-CAUS-worry-ABS language-PRED
‘What worries you is the language.’

Polyfunctional relativisation in NWC

Headless relative clauses are widespread and have a range of different uses.

- in constituent questions (Sumbatova 2009a,b)

Besleney Kabardian (constructed)

(55) *səd-ɑ* *wə-z-ʁe-gʷəmeč'ə-r*
what-Q 2SG.ABS-REL.ERG-CAUS-worry-ABS
'What (is it that) worries you?' (constructed)

Q – interrogative suffix

Polyfunctional relativisation in NWC

Headless relative clauses are widespread and have a range of different uses.

- in adverbial subordination

Abaza (text)

(56) [*ápχ'arta* *s-an-ʕá-lga*]
DEF+school 1SG.ABS-REL.TMP-CSL-finish
a-institut *s-cá-ṭ*
DEF-college 1SG.ABS-go-DCL
'When I finished school I went to college.'

Polyfunctional relativisation in NWC

Headless relative clauses are widespread and have a range of different uses.

- in complementation

Besleney Kabardian (text)

(57) [*mew-bə.m ɮəʁe ze-rə-xe-mə-ɬ-r-jə*]
DIST-OBL courage REL.IO-INSTR-LOC-NEG-lie-ABS-ADD
q̇ə-gʷərəʔʷ-a
CSL-understand-PST
'She realised that he didn't have courage.'

DIST – distal demonstrative, INSTR – instrumental applicative

Polyfunctional relativisation in NWC

- Relative verbal forms serve as a basis for matrix constituent interrogative verbal forms in Abkhaz and Abaza (Arkadiev 2020, Arkadiev & Caponigro 2021).

Polyfunctional relativisation in NWC

Abaza headless relatives (Arkadiev & Caponigro 2021):

- referring to an individual:

(58) [*zarina jə-l-χʷʕa-wa*] *s-f-əj-ṭ*
Zarina REL.ABS-3SG.F.ERG-buy-IPF 1SG.ERG-eat-PRS-DCL
'I eat what Zarina buys.'

Polyfunctional relativisation in NWC

Abaza headless relatives (Arkadiev & Caponigro 2021):

- conveying an embedded question:

(58) [*zarina jə-l-χʷʕa-wa*]

Zarina REL.ABS-3SG.F.ERG-buy-IPF

s-a-z-ɕʕa-ṭ

1SG.ABS-3SG.N.IO-BEN-ask-DCL

‘I asked what Zarina buys.’

Polyfunctional relativisation in NWC

Abaza headless relatives (Arkadiev & Caponigro 2021):

- conveying a matrix question:

(58) [*zarina jə-l-χʷʕa-wa*]-*ja*
Zarina REL.ABS-3SG.F.ERG-buy-IPF-QN
'What does Zarina buy?'

(59) [*a-xš jə-z-χʷʕa-wa*]-*da?*
DEF-milk 3SG.N.ABS-REL.ERG-buy-IPF-QH
'Who buys milk?'

QN – non-human interrogative suffix

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'What does Zarina buy?'

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DEF-milk 3SG.N.ABS-REL.ERG-buy-IPF-QH

'Who buys milk?'

QH – human interrogative suffix, QN – non-human interrogative suffix

Polyfunctional relativisation in NWC

Abaza headless relatives (Arkadiev & Caponigro 2021):

- conveying a matrix question:

(60) *arə́j* *áχč’a* *n-bá-ʕa-z-ʁəč’*
PROX DEF+money REL.TMP-QADV-CSL-1SG.ERG-steal
‘When did I steal this money?’ (text)

(61) *wə-š-pa-za-ʕá.j-χ?*
2SG.M.ABS-REL.MNR-QADV-POT-come-RE
‘How could you come back?’ (text)

MNR – manner, POT – potential, PROX – proximate demonstrative,
QADV – adverbial interrogative prefix

Summary

- Languages with polysynthetic morphology show many peculiarities in their syntax.
- However, evidence for a “polysynthetic syntax” is scarce and hard to interpret.
- Still, polysynthetic languages are remarkable in deploying many aspects of their morphology for syntactic purposes.

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Summary

- In particular, Northwest Caucasian languages
  - employ applicatives to introduce peripheral participants into the clause, also feeding relativisation;
  - express reflexivity, reciprocity and relativisation by means of special verbal markers belonging to the pronominal paradigm;
  - use their typologically outstanding morphological relativisation strategy in a wide range of functions, including complementation, focus and questions.

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tha ŝʷ-j-e-ʁe-psew!

god 2PL.ABS-3SG.ERG-DYN-CAUS-live

ŝə-zʕʷada-χa-ṭ!

2PL.ABS-healthy-INC-DCL

Thank you for your attention!

Merci de votre attention!