

Word in Polysynthesis

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Word in Circassian

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1. Prologue

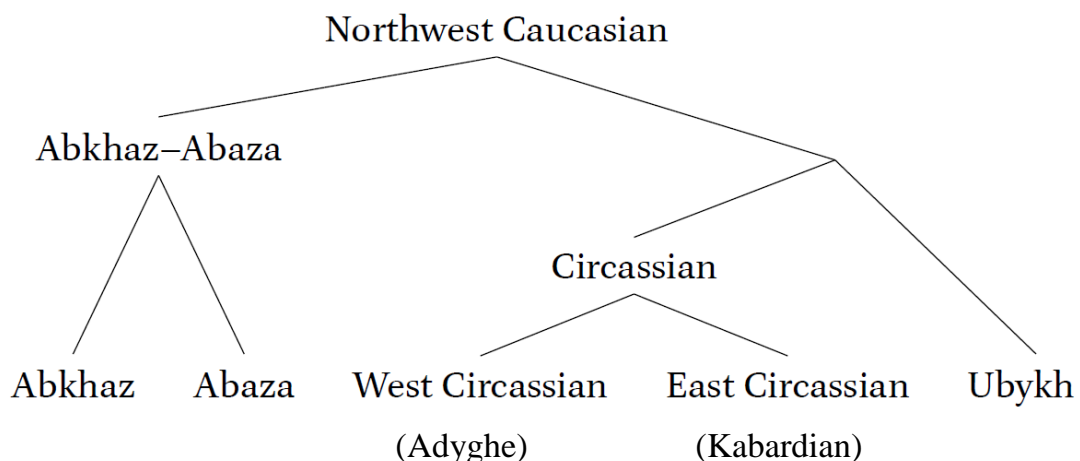
So far:

- ❖ Polysynthetic languages are languages where much more information can be expressed within the word than in non-polysynthetic languages
applicatives, incorporation, open class head marking, etc.

Today:

- ❖ Trying to understand the idea of the word is in a polysynthetic language like West Circassian

2. Circassian language(s)



Circassians and their language(s)

- Where: Northwest Caucasus, but also the Near East (mostly Turkey).
- How many: Kabardian > 1.6 million, West Circassian > 580,000 (Ethnologue)
- Speakers of West Circassian and Kabardian often consider the two groups of dialects to constitute a single language (Adyghe, or Circassian).
- Written tradition. In most communities, the orthography is based on the Cyrillic alphabet.
- We are still working on the West Circassian corpus (currently about 6 million)
- Most data here are from Standard West Circassian (collected by Peter Arkadiev, Timofey Arkhangel'skiy, Natalia Korotkova, Alexander Letuchiy, Arseniy Vydrin, the

author and others, or taken from the corpus), much of the data being published in papers written by members of the West Caucasian Project (please, consult YL for sources)

Typology:

- polysynthesis

- (1) sə-qə-ze-re-šha-pə-rə-wəḵ^{wereje-č'ə-ž'ə-ka-ke-r}
 1SG.ABS-DIR-REL.IO-INS-head-LOC-INS-fall-go.out-RE-PST-PST-ABS
 'that I had turned a somersault' (at least 13 morphemes)
- (2) sə-qə-ze-re-šha-pə-rə-b-ke-wəḵ^{wereje-č'ə-ž'ə-ka-ke-r}
 1SG.ABS-DIR-REL.IO-INS-head-LOC-INS-2SG.ERG-CAUS-fall-go.out-RE-PST-PST-ABS
 'that you had made me turn a somersault' (at least 15 morphemes)
- (3) Besleney Kabardian
 zə-qə-ze-rə-ze-pə-rə-w-jə-mə-ke-ke-ze-ž'ə-fə-ḵ-a-te-r-a-te-me
 RFL.ABS-DIR-REL.IO-FACT-RFL.IO-LOC-TRANS-2SG.IO-3SG.ERG-NEG-CAUS-CAUS-turn-RE-
 POT-PST-PST-RS-PRED-PST-RS-COND
 'if it was exactly so that s/he had not been able to make you turn back'
 (constructed by speakers)

- weak noun/verb distinction

- ✓ While nouns do have some specific properties, they may also take predicate morphology (which is usually thought to be verb morphology) and serve as predicates.

- (4) mat'emat'əkə-m-č'e te t-jə-č'elejekež'a-ke-r
 mathematics-OBL-INS we 1PL.PR-POSS-teacher-PST-ABS
 zeč'e-m a-nah deḵ^{wə-ḵ}
 all-OBL 3PL.PP-COMP good-PST
 'Our former teacher of math was the best.'

- ✓ Non-nouns can appear in argument positions and take case morphology.

- (5) q-ə-ke-λeḵ^{wə-š'tə-r} t-še-r-ep
 DIR-3SG.ERG-CAUS-be.seen-FUT-ABS 1PL.ERG-know-DYN-NEG
 'We don't know what he will show us.'

- ergativity

- ✓ both in head-marking cross-reference morphology and in dependent-marking case system (absolutive vs. oblique cases).

- (6) vasilij antipovə-m žʷərnaljəst-xe-m gʷəšʷəʔe-fabe-xe-r
 Vasiliy Antipov-OBL journalist-PL-OBL word-warm-PL-ABS
 q-a-r-jə-ʔʷa-ɤ
 DIR-3PL.IO-DAT-3SG.ERG-say-PST
 ‘Vasiliy Antipov (OBL) said kind words (ABS) to the journalists (OBL).’

✓ Traces of syntactic ergativity.

- left-branching

3. Polysynthesis in Circassian

- complex verbal forms
- (limited) nominal incorporation

- (7) sə-barabana-w ‘I am a drummer.’
 1SG.ABS-drum-beat

- “personal” prefixes which cross-reference several arguments

- (8) wə-qə-s-f-a-šʷa-ɤ ‘They carried you to me.’
 2SG.ABS-DIR-1SG.IO-BEN-3PL.ERG-carry-PST

- (9) q-a-r-a-ɤe-čʷə-ɤa-ɤe-x
 DIR-3PL.IO-LOC-3PL.ERG-CAUS-go.out-PST-PST-PL
 ‘they made them leave these places’

- productive morphology involving meaningful (scope-based) variation in affix order and recursion

- (10) a. gʷəšʷe-šʷe-žʷə-ɤ ‘s/he pretended again that s/he was happy’
 be.glad-SEEM-RE-PST
 b. gʷəšʷe-žʷə-šʷa-ɤ ‘s/he pretended that s/he was happy again’
 be.glad-RE-SEEM-PST

- evidence that words may be constructed in the course of speech more easily than in Standard Average European languages (Ad Hoc morphology)

✓ Acknowledgment by speakers:

A comment to the observation on specific (morpheme-by-morpheme?) pronunciation:
 “Don’t be surprised, people are just looking for the prefixes which they need.”

✓ Much variation observed among speakers in constructing, interpreting and evaluating complex wordforms, which suggests that such forms do not belong to their shared vocabulary.

4. Morphology vs syntax

- Haspelmath (2011): No universal criteria of wordhood. Therefore it is not clear that we really need the concept of word.
- De Reuse (2007): Polysynthetic morphology is very similar to syntax.
- Circassian: Like syntactic phrases, complex (what is thought to be) words are easily constructed in the course of speech and are not necessarily included into the lexicon shared by speakers.

Giving up the morphology/syntax distinction?

NO! The absence of universal criteria for wordhood does not logically imply

- the lack of almost universal contrast between syntax and morphology (let alone languages like Vietnamese and transitional stages of grammaticalization)
- the lack of minimal units with which syntax may operate (even though there may be complex cases),
- the prohibition to use language-specific criteria for wordhood

Evidence for words in Circassian:

- morphological evidence (not discussed here)
- morphological evidence: words are organized according to a template which includes several morphological zones, variation in morpheme order is allowed only within these zones

Argument structure zone (A)	Pre-stem zone (B)	Causative marker(s) (C)	Stem (D)	Endings (E)
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(11) [w-jə-]_A[mə-]_B[ʁe-]_C[λeʁ^{wə}-ž']_D[-ew]_E
 2SG.IO-3SG.ERG-NEG-CAUS-see-RE-ADV
 'while it does not let you see (it) again'

- Nominal complexes (combinations of nouns and their attributes) follow the same scheme:

(12) [t-jə-]_A[adəge-xebze-daxe]_D[-xe-r]_E
 1PL.IO-POSS-Circassian-law-beautiful-PL-ABS
 'our nice Circassian traditions'

- (13) [s-jə]_A-[mə]_B-[č'ele-çək^{wə}]_D-[xe-me]_E aχš'e-r ja-wə-mə-t
 1SG.IO-POSS-NEG-boy-small-PL-OBL.PL money-ABS 3PL.IO+DAT-2SG.ERG-NEG-give(IMP)
 'Don't give money to small children that are not mine!'

NB: Yet this is not enough to retain the syntax/morphology contrast:

there may be complex syntactic elements which have specific morphological and template-based properties

(cp. with languages with quite free word order at the clause level but more or less strict word order in NPs)

Evidence for the syntax/morphology contrast:

Recognizing units

Speakers easily recognize words (including grammatical words) but do not recognize grammatical morphemes and their combinations.

Syntactic strategies vs morphological strategies

Benefactives: 'I made supper for you.'

- (14) Applicative

pč'əhešhašxe p-fe-s-šə-ɸ
 supper 2SG.IO-BEN-1SG.ERG-make-PST

- (15) Postposition

weš' paje pč'əhešhašxe s-šə-ɸ
 you.SG-OBL for supper 1SG.ERG-make-PST

- (16) Postposition and applicative

weš' paje pč'əhešhašxe p-fe-s-šə-ɸ
 you.SG-OBL for supper 2SG.IO-BEN-1SG.ERG-make-PST

Potential: 'They will manage to add this.'

- (17) Suffix

qə-x-a-ɸe.χ^{wə}e-š^{wə}ə-š't
 DIR-LOC-3PL.ERG-add-POT-FUT

- (18) Modal verb

qə-x-a-ɸe.χ^{wə}ə-n a-λeč'ə-š't
 DIR-LOC-3PL.ERG-add-MOD 3PL.ERG-be.able-FUT

(19) Suffix + modal verb

qə-x-a-ʔe.χ^we-š^wə-n a-ʎeç'ə-š't
DIR-LOC-3PL.ERG-add-POT-MOD 3PL.ERG-be.able-FUT

Causatives: 'I made you write this'

(20) Synthetic causative

w-e-z-ʔe-txə-ʔ
2SG.IO-DAT-1SG.ERG-CAUS-write-PST

(21) Periphrastic causative

p-txə-n-ew wə-s-šə-ʔ
2SG.ERG-write-MOD-ADV 2SG.ABS-1SG.ERG-make-PST

(22) Synthetic causative + periphrastic causative

w-e-z-ʔe-txə-n-ew wə-s-šə-ʔ
2SG.IO-DAT-1SG.ERG-CAUS-write-MOD-ADV 2SG.ABS-1SG.ERG-make-PST

- For some meanings, speakers may use either a syntactic strategy or a morphological strategy, or both (!).
- Syntax and morphology may function independently of each other.
- Given this, we have to distinguish between morphology and syntax.

5. Where do words come from?

5.1. Conceptual system

- A word may represent such a unitary concept
(irrespectively of whether it is morphologically complex or not and irrespectively of whether its morphology is semantically transparent or not).
- Lexicon includes expressions denoting unitary concepts.

(23) a. qə-p-fe-g^wəš^wa-ʔe-x

DIR-2SG.IO-BEN-happy-PST-PL

'They congratulated you.' (Lit., 'They were happy for you.')

b. weš' paje qe-g^wəš^wa-ʔe-x

you.SG-OBL for DIR-happy-PST-PL

'They were happy for you.' / *'They congratulated you.'

- (24) a. qə-w-e-s-tə-κ
 DIR-2SG.IO-DAT-1SG.ERG-give-PST
 ‘I gave it to you.’
- b. weš’ pajə qe-s-tə-κ
 you.SG-OBL for DIR-1SG.ERG-give-PST
 ‘I handed (it) over for you.’ / *‘I gave it to you.’

- The comprehension of complex words is facilitated when a corresponding unitary concept is provided.

- (25) Ø-ŝ^w-Ø-je-s-tə-κ
 3SG.IO-MAL-3SG.IO-DAT-1SG.ERG-give-PST
 ‘I gave it to him_i against his_{i/j} will.’
 ...is easily accepted / constructed while discussing the Russian verb *navjazyvati* ‘to foist’

5.2. Information packaging

- Dahl 2004: Information is delivered in “packets” whose size is pre-specified.
- Words may represent the grammatical manifestation of such packaging and hence a means of manipulation of the discourse structure.
- Unlike complex syntactic units, such packets have restricted size (due to processing limitations).

Restricted morphological recursion

Multiple causation: Double causation is possible, but triple is not.

- (26) a. Ø-je-s-e-κe-ka-κ^we
 3SG.IO-DAT-1SG.ERG-DYN-CAUS-CAUS-go
 ‘I make him/her send him/her (there).’
- b. *Ø-r-Ø-je-s-e-κe-ka-κ^we
 3SG.IO-DAT-3SG.IO-DAT-1SG.ERG-DYN-CAUS-CAUS-go
 (‘I caused him/her to make him/her send him/her (there).’)

Multiple applicatives:

There may be several applicative complexes which introduce indirect objects:

- (27) [a-də]-[Ø-f]-[Ø-je]-z-κe-txə-κ
 [3PL.IO-COM]-[3SG.IO-BEN]-[3SG.IO-DAT]-1SG.ERG-CAUS-write-PST
 ‘I together with them asked (caused) him/her to write for her.’
- One applicative complex is ok.

- Two are ok for most speakers.
- Three are ok for many speakers, but are not accepted by others.
- Four are only possible for trained consultants.

Multiple adjectives:

When several adjectival attributes are expected, some of them may appear outside of the nominal complex as a kind of secondary predication:

(28) se λəẑ-çəḵ^w səməž'-ew s-e-êe
 I old.man-small sick-ADV 1SG.ERG-DYN-know
 'I know a sick small old man.' (Arseniy Vydrin, field notes)

- Written texts need not respect processing requirements and more easily allow longer nominal complexes and longer verbs.
- Cf. the index of synthesis (the average number of morphemes per word):
 3.49 for a newspaper text of 325 words
 3.01 for an oral text of 130 words

5.3. Effects of compositional contiguity

- The semantic (compositional) contiguity is reflected in formal contiguity and may result in word-like units.
- This may be probably facilitated by the active construction of words in the course of speech.

Nominal complexes fed by syntactic constituents:

(29) [a g^wəš'əʔe-xe-r z-e-s-ʔ^we-re]-pšešeḵ^wə-r
 [that word-PL-ABS REL.IO-DAT-1SG.ERG-say-DYN]-female.friend-ABS
 'the friend to whom I told those words'

- This is not restricted to polysynthetic languages: Semantically bound elements are generally more likely to be grammaticalized and become formally bound elements.

6. Conclusion

- We linguists do need words (which, however, may be determined on the basis of language-specific phenomena).
- We speakers may need words for different purposes.
- Polysynthetic languages are just more developed in the use of words for information packaging.