

Workshop on Lexical Affixes, 57th Annual Meeting of the Societas Linguistica Europaea
Helsinki, 21–24 August 2024

From noun incorporation to lexical affixation in Northwest Caucasian (with focus on Abaza)

Peter Arkadiev

Freiburg Institute for Advanced Studies

alpgurev@gmail.com, <https://peterarkadiev.github.io/>



FRIAS

FREIBURG INSTITUTE
FOR ADVANCED STUDIES
ALBERT-LUDWIGS-
UNIVERSITÄT FREIBURG

Roadmap

- What it is about
- Northwest Caucasian languages
- Locative preverbs
- From incorporation to affixation
- Summary

Roadmap

- What it is about
- Northwest Caucasian languages
- Locative preverbs
- From incorporation to affixation
- Summary

What it is about

- The Northwest Caucasian (Abkhaz-Adyghean) languages are not mentioned in the literature on noun incorporation.
- Yet they possess a class of morphemes, the so-called locative preverbs, that are in many cases historically and sometimes even synchronically transparently related to nouns (cf. Arkadiev & Maisak 2018, Arkadiev 2022).

What it is about

- The Northwest Caucasian (Abkhaz-Adyghean) languages are not mentioned in the literature on noun incorporation.
- Yet they possess a class of morphemes, the so-called **locative preverbs**, that are in many cases historically and sometimes even synchronically transparently related to nouns (cf. Arkadiev & Maisak 2018, Arkadiev 2022).

What it is about

Abaza

- (1) *a-ʒə* *jə-ḵ^wa-ĉ-əw-n*
DEF-water 3SG.M.IO-LOC:bosom-pour.liquid-IPF-PST
'Water was pouring into his bosom.' (Klychev 1995: 138)
- (2) *a-sabəj* *d-gara-l-g^wa-n*
DEF-child 3SG.H.ABS-LOC:cradle-3SG.F.ERG-put-PST
'She put the child in the cradle.' (Klychev 1995: 67)

What it is about

- The properties of Northwest Caucasian locative preverbs:
 - form closed classes;
 - always express spatial relations of various degrees of abstractness;
 - often serve as applicatives introducing indirect objects (Arkadiev et al. 2024);
 - differ in productivity and semantic transparency.

What it is about

- The properties of Northwest Caucasian locative preverbs:
 - form closed classes;
 - always express spatial relations of various degrees of abstractness;
 - often serve as applicatives introducing indirect objects (Arkadiev et al. 2024);
 - differ in productivity and semantic transparency.

What it is about

- From a typological perspective, the Northwest Caucasian locative preverbs
 - fit within the broader class of “preverbs” found in the other languages of the Caucasus and beyond, e.g. in many Indo-European languages (e.g. Rousseau ed. 1995, Arkadiev 2014);
 - are in many ways parallel to the so-called “locative affixes” found e.g. in a number of languages of the Americas, themselves part of the broader domain of “lexical affixes” (Mithun 1997, Mattissen 2006).

What it is about

- From a typological perspective, the Northwest Caucasian locative preverbs
 - fit within the broader class of “preverbs” found in the other languages of the Caucasus and beyond, e.g. in many Indo-European languages (e.g. Rousseau ed. 1995, Arkadiev 2014);
 - are in many ways parallel to the so-called “locative affixes” found e.g. in a number of languages of the Americas, themselves part of the broader domain of “lexical affixes” (Mithun 1997, Mattissen 2006).

What it is about

- From a typological perspective, the Northwest Caucasian locative preverbs
 - fit within the broader class of “preverbs” found in the other languages of the Caucasus and beyond, e.g. in many Indo-European languages (e.g. Rousseau ed. 1995, Arkadiev 2014);
 - are in many ways parallel to the so-called “**locative affixes**” found e.g. in a number of languages of the Americas, themselves part of the broader domain of “**lexical affixes**” (Mithun 1997, Mattissen 2006).

What it is about

Purepecha (Tarascan, Mexico, Chamoreau 2017: 683)

- Several dozen “locative suffixes” most of which relate to parts of objects (including the body) and work as “locative verbal classifiers”.
- Some of the suffixes “indicate a specific physical area”:

- (3)
- | | | |
|----|------------------------|------------------------------------|
| a. | <i>waxa-nu-x-ti</i> | ‘He sat on the patio. ’ |
| b. | <i>waxa-ru-x-ti</i> | ‘He sat in the street. ’ |
| c. | <i>waxa-k’ara-x-ti</i> | ‘He sat inside the house. ’ |

What it is about

- In this talk, I shall argue on the basis of Abaza data that the locative preverbs
 - actually form a cline from (non-canonical) noun incorporation to genuine (lexical) affixation (cf. Arkadiev 2022);
 - grammaticalisation of locative preverbs manifests itself in a number of phenomena, some of which do not neatly correlate with each other;
 - hence the distinction between incorporated nouns and lexical affixes is gradual rather than binary.

What it is about

- In this talk, I shall argue on the basis of Abaza data that the locative preverbs
 - actually form a cline from (non-canonical) noun incorporation to genuine (lexical) affixation (cf. Arkadiev 2022);
 - grammaticalisation of locative preverbs manifests itself in a number of phenomena, some of which do not neatly correlate with each other;
 - hence the distinction between incorporated nouns and lexical affixes is gradual rather than binary.

What it is about

- In this talk, I shall argue on the basis of Abaza data that the locative preverbs
 - actually form a cline from (non-canonical) noun incorporation to genuine (lexical) affixation (cf. Arkadiev 2022);
 - grammaticalisation of locative preverbs manifests itself in a number of phenomena, some of which do not neatly correlate with each other;
 - hence the distinction between incorporated nouns and lexical affixes is gradual rather than binary.

What it is about

- In this talk, I shall argue on the basis of Abaza data that the locative preverbs
 - actually form a cline from (non-canonical) noun incorporation to genuine (lexical) affixation (cf. Arkadiev 2022);
 - grammaticalisation of locative preverbs manifests itself in a number of phenomena, some of which do not neatly correlate with each other;
 - hence the distinction between incorporated nouns and lexical affixes is gradual rather than binary.

Roadmap

- What it is about
- Northwest Caucasian languages
- Locative preverbs
- From incorporation to affixation
- Summary

Roadmap

- What it is about
- **Northwest Caucasian languages**
- Locative preverbs
- From incorporation to affixation
- Summary

Northwest Caucasian languages

- One of the three indigenous language families of the Caucasus alongside Nakh-Daghestanian and Kartvelian.
- Northwest Caucasian:
 - Circassian: West Circassian (Adyghe), Kabardian
 - Abkhaz-Abaza: Abkhaz, Abaza
 - Ubykh (extinct since 1992)

Northwest Caucasian languages

- One of the three indigenous language families of the Caucasus alongside Nakh-Daghestanian and Kartvelian.
- Northwest Caucasian:
 - Circassian: West Circassian (Adyghe), Kabardian
 - Abkhaz-Abaza: Abkhaz, Abaza
 - Ubykh (extinct since 1992)

Northwest Caucasian languages



Northwest Caucasian languages

Major typological traits (Hewitt 2005, Arkadiev & Lander 2020):

- rich consonantism and impoverished vocalism;
- weak distinction between major lexical classes;
- head-marking and polysynthesis;
- little (Circassian, Ubykh) or no (Abkhaz-Abaza) core case marking;
- ergativity;
- rich system of valency-increasing derivations, especially applicatives;
- rich system of spatial marking in the verb;
- complex system of clause-combining.

Northwest Caucasian languages

Major typological traits (Hewitt 2005, Arkadiev & Lander 2020):

- rich consonantism and impoverished vocalism;
- weak distinction between major lexical classes;
- head-marking and polysynthesis;
- little (Circassian, Ubykh) or no (Abkhaz-Abaza) core case marking;
- ergativity;
- rich system of valency-increasing derivations, especially applicatives;
- rich system of spatial marking in the verb;
- complex system of clause-combining.

Northwest Caucasian languages

Major typological traits (Hewitt 2005, Arkadiev & Lander 2020):

- rich consonantism and impoverished vocalism;
- weak distinction between major lexical classes;
- head-marking and polysynthesis;
- little (Circassian, Ubykh) or no (Abkhaz-Abaza) core case marking;
- ergativity;
- rich system of valency-increasing derivations, especially **applicatives**;
- **rich system of spatial marking in the verb**;
- complex system of clause-combining.

Abaza

- *abáza bəzšá* (абазы бызшва), ISO 639-3 abq
- Ca. 38 000 speakers in Russia (Karachaevo-Cherkessia), ca. 10 000 in Turkey



Abaza

- The least-described language of the Northwest Caucasian family.
- Descriptive works exist (e.g. Genko 1955, Tabulova 1976, Lomtadze et al. 1989, O'Herin 2002), but are insufficient.
- Together with my colleagues in Moscow, I conducted fieldwork on Abaza in 2017-2021.
- However, most of the data for this talk come from published sources.

Abaza

- The least-described language of the Northwest Caucasian family.
- Descriptive works exist (e.g. Genko 1955, Tabulova 1976, Lomtadze et al. 1989, O'Herin 2002), but are insufficient.
- Together with my colleagues in Moscow, I conducted fieldwork on Abaza in 2017-2021.
- However, most of the data for this talk come from published sources.

Abaza

- The least-described language of the Northwest Caucasian family.
- Descriptive works exist (e.g. Genko 1955, Tabulova 1976, Lomtadze et al. 1989, O'Herin 2002), but are insufficient.
- Together with my colleagues in Moscow, I conducted fieldwork on Abaza in 2017-2021.
- However, most of the data for this talk come from published sources.

Abaza

The Abaza verbal template:

		“preverbs” (Π)								“stem” (Σ)					“endings”				
-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7
absolutive	subordinators, negation	repetitive	potential, involuntative	applicatives	directional preverbs	locative preverbs	indirect object	ergative	negation	causative	sociative	root	directional suffixes	event operators	plural	aspect, tense	negation	past tense, modality	subordinators, force, emphasis

Abaza

The Abaza verbal template:

		“preverbs” (Π)							“stem” (Σ)						“endings”				
-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7
absolutive	subordinators, negation	repetitive	potential, involuntative	applicatives	directional preverbs	locative preverbs	indirect object	ergative	negation	causative	sociative	root	directional suffixes	event operators	plural	aspect, tense	negation	past tense, modality	subordinators, force, emphasis



locative preverbs

Why Abaza?

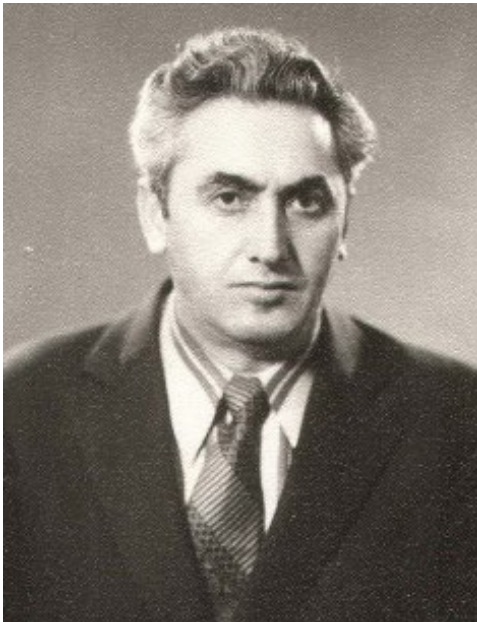
- Abaza (and, mutatis mutandis, Abkhaz) offers much richer and varied material on the relations between lexical nouns and locative preverbs than the rest of the family.
- Abaza locative preverbs happen to be amply documented.

Why Abaza?

- Abaza (and, mutatis mutandis, Abkhaz) offers much richer and varied material on the relations between lexical nouns and locative preverbs than the rest of the family.
- Abaza locative preverbs happen to be amply documented.

Why Abaza?

- Dr. Rauf Klychev (Кълыч Рауф, 1934-1993)
 - *The Locative Preverbial Derivation of Verbs in Abaza* (in Russian, Cherkessk, 1994).
 - *A Dictionary of Collocations of Locative Preverbs with Suffixoids and Verbs in Abaza* (in Russian, Cherkessk, 1995). = K
 - Ca. 4300 verbs with 150 preverbs.



Р. Н. КЛЫЧЕВ

СЛОВАРЬ СОЧЕТАЕМОСТИ
ЛОКАЛЬНЫХ ПРЕВЕРБОВ
С СУФФИКСИДАМИ
И ГЛАГОЛЬНЫМИ КОРНЯМИ
В АБАЗИНСКОМ ЯЗЫКЕ

Утверждено Министерством образования
Карачаево-Черкесской республики

КАРАЧАЕВО-ЧЕРКЕССКОЕ
КНИЖНОЕ ИЗДАТЕЛЬСТВО
ЧЕРКЕССК 1995

Roadmap

- What it is about
- Northwest Caucasian languages
- Locative preverbs
- From incorporation to affixation
- Summary

Roadmap

- What it is about
- Northwest Caucasian languages
- **Locative preverbs**
- From incorporation to affixation
- Summary

Locative preverbs

- Are found in all NWC languages:
 - ca. 30 in Circassian;
 - ca. 50 in Ubykh;
 - up to 150 in Abkhaz and Abaza (Avidzba 2017, Spruit 1986: 22-31)
- Express a variety a spatial and metaphorical meanings ranging from very abstract to very concrete.
- Often serve as applicatives introducing the landmark as an indirect object argument that can be cross-referenced in the verb (Arkadiev et al. 2024; cf. Van Linden 2022 on similar phenomenon in Harakmbut).
- Can be simplex or complex.
- Differ in productivity.
- Obligatory in some cases, and often lexicalised.

Locative preverbs

- Are found in all NWC languages:
 - ca. 30 in Circassian;
 - ca. 50 in Ubykh;
 - up to 150 in Abkhaz and Abaza (Avidzba 2017, Spruit 1986: 22-31)
- Express a variety a spatial and metaphorical meanings ranging from very abstract to very concrete.
- Often serve as applicatives introducing the landmark as an indirect object argument that can be cross-referenced in the verb (Arkadiev et al. 2024; cf. Van Linden 2022 on similar phenomenon in Harakmbut).
- Can be simplex or complex.
- Differ in productivity.
- Obligatory in some cases, and often lexicalised.

Locative preverbs

- Are found in all NWC languages:
 - ca. 30 in Circassian;
 - ca. 50 in Ubykh;
 - up to 150 in Abkhaz and Abaza (Avidzba 2017, Spruit 1986: 22-31)
- Express a variety a spatial and metaphorical meanings ranging from very abstract to very concrete.
- Often serve as applicatives introducing the landmark as an indirect object argument that can be cross-referenced in the verb (Arkadiev et al. 2024; cf. Van Linden 2022 on similar phenomenon in Harakmbut).
- Can be simplex or complex.
- Differ in productivity.
- Obligatory in some cases, and often lexicalised.

Locative preverbs

- Are found in all NWC languages:
 - ca. 30 in Circassian;
 - ca. 50 in Ubykh;
 - up to 150 in Abkhaz and Abaza (Avidzba 2017, Spruit 1986: 22-31)
- Express a variety a spatial and metaphorical meanings ranging from very abstract to very concrete.
- Often serve as applicatives introducing the landmark as an indirect object argument that can be cross-referenced in the verb (Arkadiev et al. 2024; cf. Van linden 2022 on similar phenomenon in Harakmbut).
- Can be simplex or complex.
- Differ in productivity.
- Obligatory in some cases, and often lexicalised.

Locative preverbs

- Are found in all NWC languages:
 - ca. 30 in Circassian;
 - ca. 50 in Ubykh;
 - up to 150 in Abkhaz and Abaza (Avidzba 2017, Spruit 1986: 22-31)
- Express a variety a spatial and metaphorical meanings ranging from very abstract to very concrete.
- Often serve as applicatives introducing the landmark as an indirect object argument that can be cross-referenced in the verb (Arkadiev et al. 2024; cf. Van linden 2022 on similar phenomenon in Harakmbut).
- Can be simplex or complex.
- Differ in productivity.
- Obligatory in some cases, and often lexicalised.

Locative preverbs

Abaza

- (4) *a-wasa a-š'acara jə-la-wə-m-sa-n*
DEF-sheep DEF-lawn 3SG.N.ABS-LOC:mass-2SG.M.ERG-NEG-
shear-IMP
'Do not shear the sheep on the lawn.' (Klychev 1995: 145)
- (5) *a-ʒə ʃa-sə-k^w-χ^wχ^wa-t*
DEF-water CSL-1SG.IO-LOC:top-sprinkle-DCL
'Water sprinkled on me.' (Klychev 1995: 117)
- (6) *a-çəjs a-qəš j-ḵə-la-pssʃa-t*
DEF-bird DEF-window 3SG.N.ABS-LOC:narrow-LOC:mass-fly-DCL
'The bird flew through the window.' (Klychev 1995: 131)

Locative preverbs

Simplex preverbs

Abaza

- (4) *a-wasa a-š'acara jə-la-wə-m-sa-n*
DEF-sheep DEF-lawn 3SG.N.ABS-LOC:mass-2SG.M.ERG-NEG-
shear-IMP

'Do not shear the sheep on the lawn.' (Klychev 1995: 145)

- (5) *a-ʒə ʃa-sə-k^w-χ^wχ^wa-ʈ*
DEF-water CSL-1SG.IO-LOC:top-sprinkle-DCL

'Water sprinkled on me.' (Klychev 1995: 117)

- (6) *a-çəjs a-qəš j-ka-la-pssʃa-ʈ*
DEF-bird DEF-window 3SG.N.ABS-LOC:narrow-LOC:mass-fly-DCL

'The bird flew through the window.' (Klychev 1995: 131)

Locative preverbs

Abaza

Simplex preverbs

- (4) *a-wasa a-š'acara jə-la-wə-m-sa-n*
 DEF-sheep DEF-lawn 3SG.N.ABS-LOC:mass-2SG.M.ERG-NEG-
 shear-IMP

'Do not shear the sheep on the lawn.' (Klychev 1995: 145)

- (5) *a-ʒə ʃa-sə-k^w-χ^wχ^wa-t*
 DEF-water CSL-1SG.IO-LOC:top-sprinkle-DCL

'Water sprinkled on me.' (Klychev 1995: 117)

Complex preverb

- (6) *a-çəjs a-qəš j-kə-la-pssʃa-t*
 DEF-bird DEF-window 3SG.N.ABS-LOC:narrow-LOC:mass-fly-DCL

'The bird flew through the window.' (Klychev 1995: 131)

Locative preverbs

Abaza

(4) *a-wasa* DEF-sheep *a-š'acara* DEF-lawn *jə-la-wə-m-sa-n* 3SG.N.ABS-LOC:mass-2SG.M.ERG-NEG-shear-IMP
 'Do not shear the sheep on the lawn.' (Klychev 1995: 145)

Simplex preverbs

Landmark

χ-3ə DEF-water *ʃa-sə-k^w-χ^wχ^wa-t* CSL-1SG.IO-LOC:top-sprinkle-DCL
 'Water sprinkled on me.' (Klychev 1995: 117)

Complex preverb

(6) *a-çəjs* DEF-bird *a-qəš* DEF-window *j-kə-la-pssʃa-t* 3SG.N.ABS-LOC:narrow-LOC:mass-fly-DCL
 'The bird flew through the window.' (Klychev 1995: 131)

Locative preverbs

Abaza

(4) *a-wasa* DEF-sheep *a-š'acara* DEF-lawn *jə-la-wə-m-sa-n* 3SG.N.ABS-LOC:mass-2SG.M.ERG-NEG-shear-IMP
 'Do not shear the sheep **on the lawn.**' (Klychev 1995: 145)

Simplex preverbs

Landmark

zə DEF-water *ʃa-sə-k^w* CSL-1SG.IO-LOC:top-sprinkle-DCL *χ^wχ^wa-t*
 'Water sprinkled **on me.**' (Klychev 1995: 117)

Complex preverb

(6) *a-çəjs* DEF-bird *a-qəš* DEF-window *j-kə-la-pssʃa-t* 3SG.N.ABS-LOC:narrow-LOC:mass-fly-DCL
 'The bird flew **through the window.**' (Klychev 1995: 131)

Indirect object prefix

Locative preverbs

- Diachronically, most locative preverbs in NWC go back to incorporated nouns, mainly denoting parts of body or other objects (Kumakhov 1964: 164-182, 1989: 200-228; Lomtadze 1983; Avidzba 2017; Arkadiev & Maisak 2018: 121-125).
- A cross-linguistically common historical path for lexical affixes (Mithun 1984: 885–887; Mithun 1997: 365-366; Kinkade 1998; Mattissen 2006).
- NWC preverbs are in many cases much more transparently related to the corresponding nouns than e.g. the “body-part prefixes” in the Panoan languages (Fleck 2006, Zariquiey & Fleck 2012).

Locative preverbs

- Diachronically, most locative preverbs in NWC go back to incorporated nouns, mainly denoting parts of body or other objects (Kumakhov 1964: 164-182, 1989: 200-228; Lomtadze 1983; Avidzba 2017; Arkadiev & Maisak 2018: 121-125).
- A cross-linguistically common historical path for lexical affixes (Mithun 1984: 885–887; Mithun 1997: 365-366; Kinkade 1998; Mattissen 2006).
- NWC preverbs are in many cases much more transparently related to the corresponding nouns than e.g. the “body-part prefixes” in the Panoan languages (Fleck 2006, Zariquiey & Fleck 2012).

Roadmap

- What it is about
- Northwest Caucasian languages
- Locative preverbs
- From incorporation to affixation
- Summary

Roadmap

- What it is about
- Northwest Caucasian languages
- Locative preverbs
- **From incorporation to affixation**
- Summary

From incorporation to affixation

- Some of the locative preverbs express highly abstract spatial meanings and have no obvious counterparts among lexical nouns.
- However, many locative preverbs are clearly formally as well as semantically related to nouns from two semantic classes:
 - body-part nouns, e.g. *qa-* ‘above’ ~ *qa* ‘head’ ;
 - salient landmarks or artefacts, e.g. *ʕ^wna-* ‘inside’ ~ *ʕ^wna* ‘house’.

From incorporation to affixation

- Some of the locative preverbs express highly abstract spatial meanings and have no obvious counterparts among lexical nouns.
- However, many locative preverbs are clearly formally as well as semantically related to nouns from two semantic classes:
 - body-part nouns, e.g. *qa-* ‘above’ ~ *qa* ‘head’ ;
 - salient landmarks or artefacts, e.g. *ʕ^wna-* ‘inside’ ~ *ʕ^wna* ‘house’.

From incorporation to affixation

- Some of the locative preverbs express highly abstract spatial meanings and have no obvious counterparts among lexical nouns.
- However, many locative preverbs are clearly formally as well as semantically related to nouns from two semantic classes:
 - body-part nouns, e.g. *qa-* ‘above’ ~ *qa* ‘head’ ;
 - salient landmarks or artefacts, e.g. *ʕ^wna-* ‘inside’ ~ *ʕ^wna* ‘house’.

From incorporation to affixation

- Some of the locative preverbs express highly abstract spatial meanings and have no obvious counterparts among lexical nouns.
- However, many locative preverbs are clearly formally as well as semantically related to nouns from two semantic classes:
 - body-part nouns, e.g. *qa-* ‘above’ ~ *qa* ‘head’ ;
 - salient landmarks or artefacts, e.g. *ʃ^wna-* ‘inside’ ~ *ʃ^wna* ‘house’.

From incorporation to affixation

- Locative preverbs can be classified according to their relationship to nouns:

From incorporation to affixation

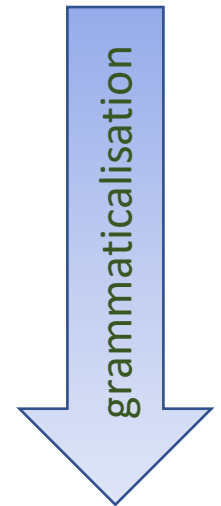
- Locative preverbs can be classified according to their relationship to nouns:

	have related nouns	retain lexical meaning	example
type I	yes	always	<i>lakta-</i> 'face' <i>gara-</i> 'cradle'
type II	yes	sometimes	<i>ča-</i> 'face, vertical surface' <i>ɬ^wna</i> 'house, room'
type III	yes	no	<i>qa-</i> 'head' > 'above' <i>š'kla</i> 'stirrup' > 'behind'
type IV	no	no	<i>ta-</i> 'inside', <i>ča-</i> 'below'

From incorporation to affixation

- Locative preverbs can be classified according to their relationship to nouns:

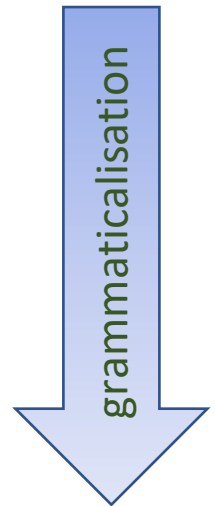
	have related nouns	retain lexical meaning	example
type I	yes	always	<i>lakta-</i> 'face' <i>gara-</i> 'cradle'
type II	yes	sometimes	<i>ča-</i> 'face, vertical surface' <i>ɬ^wna</i> 'house, room'
type III	yes	no	<i>qa-</i> 'head' > 'above' <i>š'kla</i> 'stirrup' > 'behind'
type IV	no	no	<i>ta-</i> 'inside', <i>ča-</i> 'below'



From incorporation to affixation

- Locative preverbs can be classified according to their relationship to nouns:

	have related nouns	retain lexical meaning	example
type I	yes	always incorporation	<i>lakta-</i> 'face' <i>gara-</i> 'cradle'
type II	yes	sometimes	<i>ča-</i> 'face, vertical surface' <i>ʃ^wna</i> 'house, room'
type III	yes	no	<i>qa-</i> 'head' > 'above' <i>š^kla</i> 'stirrup' > 'behind'
type IV	no	lexical affixation	<i>ta-</i> 'inside', <i>ča-</i> 'below'



From incorporation to affixation

- Type I preverbs:
 - always retain the original lexical meaning;
 - can arguably express referential landmarks;
 - when expressing body-parts, co-occur with an indirect object prefix referring to the possessor of the body-part

From incorporation to affixation

- Type I preverbs:
 - always retain the original lexical meaning;
 - can arguably express referential landmarks;
 - when expressing body-parts, co-occur with an indirect object prefix referring to the possessor of the body-part

From incorporation to affixation

- Type I preverbs:
 - always retain the original lexical meaning;
 - can arguably express referential landmarks;
 - when expressing body-parts, co-occur with an indirect object prefix referring to the possessor of the body-part

From incorporation to affixation

- Type I preverbs:
 - always retain the original lexical meaning;
 - can arguably express referential landmarks;
 - body-part-based preverbs co-occur with an indirect object prefix referring to the possessor of the body-part.

From incorporation to affixation

- Type I preverbs:

(7) *a-saba* *ʒa-rə-lakta-pl-əw-n*

DEF-dust CSL-3PL.IO-LOC:face-pour.powder-IPF-PST

‘Dust was pouring onto their faces.’ (K: 154)

(8) *w-g^wara-pš-ta*

w-ʒa.j.χ

2SG.M.ABS-LOC:fence-look-ADV 2SG.M.ABS-return(IMP)

‘Look in the courtyard (lit. “inside the fence”) and come back.’ (K: 69)

From incorporation to affixation

- Type I preverbs allow for non-incorporated expression:

- (9) a. *j-ʕa-wə-lakta-ʒʒa-p*
 3PL.ABS-CSL-2SG.M.IO-LOC:face-spit-NPST.DCL
 ‘They will spit you in the face.’ (K: 153)
- b. *wə-lakta* *j-ʕa-ta-ʒʒ-əw-š-ṭ*
 2SG.M.PR-face 3PL.ABS-CSL-LOC:in-spit-IPF-FUT-DCL
 ‘id.’ (elicited)
- (10) a. *d-čʕ^wa-zaχ-wa-n*
 3SG.H.ABS-LOC:hearth-sew-IPF-PST
 ‘She was sewing beside the hearth.’ (K: 211)
- b. *a-čʕ^wa* *a-zaa* *d-zaχ-wa-n*
 DEF-hearth 3SG.N.PR-side 3SG.H.ABS-sew-IPF-PST
 ‘id.’ (elicited)

From incorporation to affixation

- Type I preverbs allow for non-incorporated expression:

- (9) a. *j-ʕa-wə-lakta-ʒ̂ʒ̂a-p̂*
 3PL.ABS-CSL-2SG.M.IO-LOC:face-spit-NPST.DCL
 ‘They will spit you in the face.’ (K: 153)
- b. *wə-lakta* *j-ʕa-ta-ʒ̂ʒ̂-əw-š-ṭ*
 2SG.M.PR-face 3PL.ABS-CSL-LOC:in-spit-IPF-FUT-DCL
 ‘id.’ (elicited)
- (10) a. *d-čʕ^wa-zaχ-wa-n*
 3SG.H.ABS-LOC:hearth-sew-IPF-PST
 ‘She was sewing beside the hearth.’ (K: 211)
- b. *a-čʕ^wa* *a-zaqa* *d-zaχ-wa-n*
 DEF-hearth 3SG.N.PR-side 3SG.H.ABS-sew-IPF-PST
 ‘id.’ (elicited)

From incorporation to affixation

- Type II preverbs:
 - usually express more abstract spatial meanings;
 - still retain their original meaning in combination with some verbs.

From incorporation to affixation

- Type II preverbs:
 - usually express more abstract spatial meanings;
 - still retain their original meaning in combination with some verbs.

From incorporation to affixation

- Type II preverbs:
 - usually express more abstract spatial meanings;
 - still retain their original meaning in combination with some verbs.

From incorporation to affixation

- Type II preverbs:
- *ʒa-* ‘cheek’ > ‘lateral surface’

(11) a. *də-j-ʒa-kš-əw-n*

3SG.H.ABS-3SG.M.IO-LOC:cheek-hit-IPF-PST

‘S/he was beating him on the cheek.’ (K: 98)

b. *a-kdə ʒa-r-bəl-wa-n*

DEF-stump LOC:cheek-3PL.ERG-burn-IPF-PST

‘They were burning the stump on one side.’ (K: 99)

From incorporation to affixation

- Type III preverbs:
 - only express abstract spatial meanings;
 - still have clear cognates among nouns.

From incorporation to affixation

- Type III preverbs:
 - only express abstract spatial meanings;
 - still have clear cognates among nouns.

From incorporation to affixation

- Type III preverbs:
 - only express abstract spatial meanings;
 - still have clear cognates among nouns.

From incorporation to affixation

- Type III preverbs:

bva 'back, waist' > 'down' (*bva-pš-ra* 'look down', K: 53)

waça 'intestines' > 'inside a container' (*waça-ž-ra* 'to boil inside smth', K: 239)

mg^wa 'belly' > 'wrapped up' (*mg^wa-š-ra* 'to freeze being dressed up', K: 161)

From incorporation to affixation

- The subdivision of locative preverbs into the classes I–III is actually gradual rather than categorical:
 - can be assessed as the type frequency of verbs listed in Klychev (1995) with which the original meaning of the noun is retained;
 - NB preverbs widely differ in their productivity (according to Klychev 1995, some of them combine with hundreds of verbs, while others occur with just a handful).

From incorporation to affixation

- The subdivision of locative preverbs into the classes I–III is actually gradual rather than categorical:
 - can be assessed as the type frequency of verbs listed in Klychev (1995) with which the original meaning of the noun is retained;
 - NB preverbs widely differ in their productivity (according to Klychev 1995, some of them combine with hundreds of verbs, while others occur with just a handful).

From incorporation to affixation

- The subdivision of locative preverbs into the classes I–III is actually gradual rather than categorical:
 - can be assessed as the type frequency of verbs listed in Klychev (1995) with which the original meaning of the noun is retained;
 - NB preverbs widely differ in their productivity (according to Klychev 1995, some of them combine with hundreds of verbs, while others occur with just a handful).

From incorporation to affixation

- The subdivision of locative preverbs into the classes I–III is actually gradual rather than categorical:

From incorporation to affixation

- The subdivision of locative preverbs into the classes I–III is actually gradual rather than categorical:

preverb	meaning	total no. verbs	no. verbs with original meaning
<i>gara-</i>	‘cradle’	8	8 (100%)
<i>čʕ^wa-</i>	‘hearth’	126	126 (100%)
<i>naḫə-</i>	‘hand’	59	54 (92%)
<i>lakta-</i>	‘face’	17	14 (82%)
<i>ĉə-</i>	‘skin’ > ‘surface’	28	21 (75%)
<i>ča-</i>	‘mouth, face’ > ‘vertical surface’	206	50 (24%)
<i>waça-</i>	‘intestines’ > ‘inside’	136	4 (3%)
<i>mg^wa-</i>	‘belly’ > ‘wrapped up’	57	0 (0%)

From incorporation to affixation

- The subdivision of locative preverbs into the classes I–III is actually gradual rather than categorical:

preverb	meaning	total no. verbs	no. verbs with original meaning
<i>gara-</i>	‘cradle’	8	8 (100%)
<i>čʕ^wa-</i>	‘hearth’	126	126 (100%)
<i>naḗə-</i>	‘hand’	59	54 (92%)
<i>lakta-</i>	‘face’	17	14 (82%)
<i>ĉə-</i>	‘skin’ > ‘surface’	28	21 (75%)
<i>ča-</i>	‘mouth, face’ > ‘vertical surface’	206	50 (24%)
<i>waça-</i>	‘intestines’ > ‘inside’	136	4 (3%)
<i>mg^wa-</i>	‘belly’ > ‘wrapped up’	57	0 (0%)



From incorporation to affixation

- Even the preverbs which more often than not retain the original meaning of the incorporated noun show certain signs of grammaticalisation:
 - co-occurrence with synonymous or hyponymous external noun phrases;
 - morphological distinction between introvert and extravert forms;
 - loss of the lexical cognate (e.g. *č̣kara-* ‘courtyard’, Klychev 1994: 31).

From incorporation to affixation

- Even the preverbs which more often than not retain the original meaning of the incorporated noun show certain signs of grammaticalisation:
 - co-occurrence with synonymous or hyponymous external noun phrases;
 - morphological distinction between introvert and extravert forms;
 - loss of the lexical cognate (e.g. *čqara-* ‘courtyard’, Klychev 1994: 31).

From incorporation to affixation

- Even the preverbs which more often than not retain the original meaning of the incorporated noun show certain signs of grammaticalisation:
 - co-occurrence with synonymous or hyponymous external noun phrases;
 - morphological distinction between introvert and extravert forms;
 - loss of the lexical cognate (e.g. *čkara-* ‘courtyard’, Klychev 1994: 31).

From incorporation to affixation

- Even the preverbs which more often than not retain the original meaning of the incorporated noun show certain signs of grammaticalisation:
 - co-occurrence with synonymous or hyponymous external noun phrases;
 - morphological distinction between introvert and extravert forms;
 - loss of the lexical cognate (e.g. *č̣kara-* ‘courtyard’, Klychev 1994: 31).

From incorporation to affixation

- Some (mostly non-relational) preverbs can be used as **verbal classifiers** lacking independent reference and corresponding to a landmark expressed as a full nominal (cf. Type IV noun incorporation of Mithun 1984).
- Such a landmark can have the same root as the preverb, or be synonymous or hyponymous to it.

From incorporation to affixation

- Some (mostly non-relational) preverbs can be used as **verbal classifiers** lacking independent reference and corresponding to a landmark expressed as a full nominal (cf. Type IV noun incorporation of Mithun 1984).
- Such a landmark can have the same root as the preverb, or be synonymous or hyponymous to it.

From incorporation to affixation

Locative preverbs as verbal classifiers:

(12) *rə-čʰwə* *d-čʰwə-pχa-t* same root
3PL.IO-oven 3SG.H.ABS-LOC:oven-warm_up-DCL
'He warmed himself up near their oven.' (K: 213)

(13) *a-kʰadəg^w* *wə-čkara-l-p̄*
DEF-courtyard 2SG.M.ABS-LOC:yard-enter-NPST
'You will enter the courtyard.' (AbTa: 85)

(14) *a-klub* *jə-ʃ^wna-n.χ-əj-t*
DEF-club 3PL.ABS-LOC:house-work-PRS-DCL
'They work in the club.' (K: 88)

From incorporation to affixation

Locative preverbs as verbal classifiers:

(12) *rə-čʰwə* *d-čʰwə-pχa-t*

3PL.IO-oven 3SG.H.ABS-LOC:oven-warm_up-DCL

‘He warmed himself up near their oven.’ (K: 213)

(13) *ə-kʰadəg^w* *wə-čkara-l-p̄* synonymous

DEF-courtyard 2SG.M.ABS-LOC:yard-enter-NPST

‘You will enter the courtyard.’ (AbTa: 85)

(14) *ə-klub* *jə-ʃ^wnə-n.χ-əj-t*

DEF-club 3PL.ABS-LOC:house-work-PRS-DCL

‘They work in the club.’ (K: 88)

From incorporation to affixation

Locative preverbs as verbal classifiers:

- (12) *rə-čʰwə* *d-čʰwə-pχa-t*
3PL.IO-oven 3SG.H.ABS-LOC:oven-warm_up-DCL
'He warmed himself up near their oven.' (K: 213)
- (13) *a-kʰadəg^w* *wə-čkara-l-p̄*
DEF-courtyard 2SG.M.ABS-LOC:yard-enter-NPST
'You will enter the courtyard.' (AbTa: 85)
- (14) *a-klub* *jə-ɸ^wna-n.χ-əj-t* hyponymous
DEF-club 3PL.ABS-LOC:house-work-PRS-DCL
'They work in the club.' (K: 88)

From incorporation to affixation

- Many preverbs in Abaza and Abkhaz distinguish **introvert** (essive-locative, with final *-a*) and **extravert** (elative, with apocope, final *-ə* or metathesis) forms (Spruit 1986: 16-17, Klychev 1994: 8-9, Avidzba 2017).

- (15) a. *a-ǰanž'a* *a-ɬ^wara* *j-ta-pssɬa-χ-t̚*
DEF-crow 3SG.N.IO-nest 3SG.N.ABS-LOC:in-fly-RE-DCL
'The crow flew back into its nest.' (K: 197)
- b. *a-warba* *a-ɬ^wara* *j-tə-pssɬa-t̚*
DEF-eagle 3SG.N.IO-nest 3SG.N.ABS-LOC:in.ELAT-fly-DCL
'The eagle flew out of its nest.' (K: 205)

From incorporation to affixation

- Many preverbs in Abaza and Abkhaz distinguish **introvert** (essive-locative, with final *-a*) and **extravert** (elative, with apocope, final *-ə* or metathesis) forms (Spruit 1986: 16-17, Klychev 1994: 8-9, Avidzba 2017).

- (15) a. *a-ǰanž'a* *a-ɸ^wara* *j-ta-pssɸa-χ-ɸ*
DEF-crow 3SG.N.IO-nest 3SG.N.ABS-LOC:in-fly-RE-DCL
'The crow flew back **into** its nest.' (K: 197) **introvert**
- b. *a-warba* *a-ɸ^wara* *j-tə-pssɸa-ɸ*
DEF-eagle 3SG.N.IO-nest 3SG.N.ABS-LOC:in.ELAT-fly-DCL
'The eagle flew out of its nest.' (K: 205) **extravert**

From incorporation to affixation

- Many preverbs in Abaza and Abkhaz distinguish **introvert** (essive-locative, with final *-a*) and **extravert** (elative, with apocope, final *-ə* or metathesis) forms (Spruit 1986: 16-17, Klychev 1994: 8-9, Avidzba 2017).

- (15) a. *a-ǰanž'a* *a-ɸ^wara* *j-ta-pssɸa-χ-t̚*
DEF-crow 3SG.N.IO-nest 3SG.N.ABS-LOC:in-fly-RE-DCL
'The crow flew back **into** its nest.' (K: 197) **introvert**
- b. *a-warba* *a-ɸ^wara* *j-tə-pssɸa-t̚*
DEF-eagle 3SG.N.IO-nest 3SG.N.ABS-LOC:in.ELAT-fly-DCL
'The eagle flew **out of** its nest.' (K: 205) **extravert**

From incorporation to affixation

- The introvert vs. extravert distinction is attested with preverbs of all types, including those always retaining the original lexical meaning.
- No evidence of a similar distinction in the corresponding nouns when used independently.
- A clear sign of affixalisation of incorporated nouns.
- Notably, can precede semantic change.

From incorporation to affixation

- The introvert vs. extravert distinction is attested with preverbs of all types, including those always retaining the original lexical meaning.
- No evidence of a similar distinction in the corresponding nouns when used independently.
- A clear sign of affixalisation of incorporated nouns.
- Notably, can precede semantic change.

From incorporation to affixation

- The introvert vs. extravert distinction is attested with preverbs of all types, including those always retaining the original lexical meaning.
- No evidence of a similar distinction in the corresponding nouns when used independently.
- A clear sign of affixalisation of incorporated nouns.
- Notably, can precede semantic change.

From incorporation to affixation

- The introvert vs. extravert distinction is attested with preverbs of all types, including those always retaining the original lexical meaning.
- No evidence of a similar distinction in the corresponding nouns when used independently.
- A clear sign of affixalisation of incorporated nouns.
- Notably, can precede semantic change.

From incorporation to affixation

- With incorporated body-part nouns:

- (16) a. *a-ʒə* *jə-q^wda-žž-wa-n*
DEF-water 3SG.M.IO-LOC:neck-pour:liquid-IPF-PST
'Water was pouring **on** his neck.' (K: 274) **introvert**
- b. *a-mχ^w-k^wa* *lə-q^wdə-l-žə-t*
DEF-beads-PL 3SG.F.IO-LOC:neck.ELAT-3SG.F.ERG-tear_off-DCL
'She tore the beads **off** her neck.' (K: 275) **extravert**

From incorporation to affixation

- With incorporated non-relational nouns:

- (17) a. *aʃ^w* *čʃ^wa-l-ga-t̚*
DEF+trough LOC:hearth-3SG.F.ERG-carry-DCL
'She brought the trough **to** the hearth.' **introvert**
(K: 211)
- b. *d-čʃ^wə-r-ga-χ-t̚*
3SG.H.ABS-LOC:hearth.ELAT-3PL.ERG-carry-RE-DCL
'They carried him **out of** the hearth.' **extravert**
(K: 218)

Roadmap

- What it is about
- Northwest Caucasian languages
- Locative preverbs
- From incorporation to affixation
- Summary

Roadmap

- What it is about
- Northwest Caucasian languages
- Locative preverbs
- From incorporation to affixation
- **Summary**

Summary

- Locative preverbs of the Northwest Caucasian languages are relevant for the study of both noun incorporation and lexical affixes.
 - As an instance of noun incorporation, they present a typologically highly unusual case, where only a limited number of nouns can be incorporated and only as spatial modifiers, never as cross-linguistically more common patients or instruments, and invariably end up in the same distributional class as unequivocal locative prefixes.

Summary

- Locative preverbs of the Northwest Caucasian languages are relevant for the study of both noun incorporation and lexical affixes.
 - As an instance of noun incorporation, they present a typologically highly unusual case, where only a limited number of nouns can be incorporated and only as spatial modifiers, never as cross-linguistically more common patients or instruments, and invariably end up in the same distributional class as unequivocal locative prefixes.

Summary

- Locative preverbs of the Northwest Caucasian languages are relevant for the study of both noun incorporation and lexical affixes.
 - As an instance of lexical affixation, they present a synchronically observable case of a grammaticalisation cline from incorporated nouns to spatial modifiers and applicatives with more or less abstract functions (cf. Rose 2019 on Mojeño Trinitario).

Summary

- Manifestations of the gradual nature of the transition from incorporated nouns to lexical affixes:
 - cline in the type frequency of verbs attesting the original lexical meaning of the preverbs;
 - “reinforcement” of the preverbs by synonymous/hyponymous external nominals, hence gradual loss of referential autonomy of incorporated nouns and their becoming verbal classifiers;
 - development of the morphological distinction between extravert and introvert form even in those preverbs that are most similar to incorporated nouns.

Summary

- Manifestations of the gradual nature of the transition from incorporated nouns to lexical affixes:
 - cline in the type frequency of verbs attesting the original lexical meaning of the preverbs;
 - “reinforcement” of the preverbs by synonymous/hyponymous external nominals, hence gradual loss of referential autonomy of incorporated nouns and their becoming verbal classifiers;
 - development of the morphological distinction between extravert and introvert form even in those preverbs that are most similar to incorporated nouns.

Summary

- Manifestations of the gradual nature of the transition from incorporated nouns to lexical affixes:
 - cline in the type frequency of verbs attesting the original lexical meaning of the preverbs;
 - “reinforcement” of the preverbs by synonymous/hyponymous external nominals, hence gradual loss of referential autonomy of incorporated nouns and their becoming verbal classifiers;
 - development of the morphological distinction between extravert and introvert form even in those preverbs that are most similar to incorporated nouns.

Summary

- Manifestations of the gradual nature of the transition from incorporated nouns to lexical affixes:
 - cline in the type frequency of verbs attesting the original lexical meaning of the preverbs;
 - “reinforcement” of the preverbs by synonymous/hyponymous external nominals, hence gradual loss of referential autonomy of incorporated nouns and their becoming verbal classifiers;
 - development of the morphological distinction between extravert and introvert form even in those preverbs that are most similar to incorporated nouns.

Summary

- More generally, the Northwest Caucasian locative preverbs
 - reveal a complex history indicative of successive layers of incorporation and ensuing morphologisation;
 - suggest that acquisition of certain affixal properties (e.g. introvert vs. extravert opposition) by incorporated nouns can occur independently of and before semantic bleaching;
 - challenge the strict binary distinction between roots and affixes;
 - present an interesting test-case for theories of grammatical status and grammaticalisation.

Summary

- More generally, the Northwest Caucasian locative preverbs
 - reveal a complex history indicative of successive layers of incorporation and ensuing morphologisation;
 - suggest that acquisition of certain affixal properties (e.g. introvert vs. extravert opposition) by incorporated nouns can occur independently of and before semantic bleaching;
 - challenge the strict binary distinction between roots and affixes;
 - present an interesting test-case for theories of grammatical status and grammaticalisation.

Summary

- More generally, the Northwest Caucasian locative preverbs
 - reveal a complex history indicative of successive layers of incorporation and ensuing morphologisation;
 - suggest that acquisition of certain affixal properties (e.g. introvert vs. extravert opposition) by incorporated nouns can occur independently of and before semantic bleaching;
 - challenge the strict binary distinction between roots and affixes;
 - present an interesting test-case for theories of grammatical status and grammaticalisation.

Summary

- More generally, the Northwest Caucasian locative preverbs
 - reveal a complex history indicative of successive layers of incorporation and ensuing morphologisation;
 - suggest that acquisition of certain affixal properties (e.g. introvert vs. extravert opposition) by incorporated nouns can occur independently of and before semantic bleaching;
 - challenge the strict binary distinction between roots and affixes;
 - present an interesting test-case for theories of grammatical status and grammaticalisation.

Summary

- More generally, the Northwest Caucasian locative preverbs
 - reveal a complex history indicative of successive layers of incorporation and ensuing morphologisation;
 - suggest that acquisition of certain affixal properties (e.g. introvert vs. extravert opposition) by incorporated nouns can occur independently of and before semantic bleaching;
 - challenge the strict binary distinction between roots and affixes;
 - present an interesting test-case for theories of grammatical status and grammaticalisation.

ŝə-zʰáda-χa-ʈ

2PL.ABS-healthy-INC-DCL

Thank you for you attention!

Kiitos, kun kuuntelite!



References

- AbTa: *Абаза турыккwa* [Abaza Tales]. Mineral'nye vody: Alashara.
- Arkadiev P.M. 2014. Towards an areal typology of prefixal perfectivization. *Scando-Slavica* 60/2, 384–405.
- Arkadiev P.M. 2022. Non-canonical noun incorporation and lexical affixation in Northwest Caucasian (with focus on Abaza). *Linguistics Colloquium of the University of Bern* (9 November), seminar *Théories et données linguistiques*, INALCO, Paris (18 November).
- Arkadiev P.M., Y.A. Lander & I.B. Bagirokova. 2024. Applicative constructions in the Northwest Caucasian languages. In: Fernando Zúñiga & Denis Creissels (eds.), *Applicative Constructions in the World's Languages*. Berlin, Boston: De Gruyter Mouton, 869–912.
- Arkadiev P.M. & T.A. Maisak. 2018. Grammaticalization in the North Caucasian languages. In: H. Narrog & B. Heine (eds.), *Grammaticalization from a Typological Perspective*. Oxford: Oxford University Press, 116–145.
- Arkadiev P.M. & Yu.A. Lander. 2020 The Northwest Caucasian languages. In: M. Polinsky (ed.), *The Oxford Handbook of the Languages of the Caucasus*. Oxford: Oxford University Press, 369–446.
- Avidzba A.V. 2017. *Lokal'nye preverby v abxazskom i abazinskom jazykax* [Local preverbs in Abkhaz and Abaza]. Ph.D. Dissertation, Sukhum.

References

- Chamoreau Cl. 2017. Purepecha, a polysynthetic but predominantly dependent-marking language. In: M. Fortescue, M. Mithun, N. Evans (eds), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press, 667–695.
- Fleck D. W. 2006. Body-part prefixes in Matsigenka: Derivation or noun-incorporation. *International Journal of American Linguistics* 72(1), 59–96.
- Genko, Anatolij N. 1955. *Abazinskij jazyk. Grammatičeskij očerk narečija tapanta* [The Abaza Language. A Grammatical Sketch of the Tapanta Dialect]. Moscow: Izdatel'stvo Akademii Nauk SSSR.
- Hewitt B.G. 2005. North West Caucasian. *Lingua* 119, 91–145.
- Kinkade M. D. 1998. Origins of Salishan lexical suffixes. In: *Papers for the 33rd International Conference on Salish and Neighboring Languages*. Seattle: University of Washington, 266–295.
- Klyčev R.N. 1994. *Lokal'no-preverbnoe obrazovanie glagolov abazinskogo jazyka* [The locative preverbal derivation of verbs in Abaza]. Cherkessk: Adž'pa.
- Klychev R.N. 1995. *Slovar' sočetaemosti lokal'nyx preverbov s suffiksoidami i glagol'nymi kornjami v abazinskom jazyke* [The collocational dictionary of locative preverbs with suffixoids and verbal roots in Abaza]. Cherkessk: Karačaevo-čerkeskoe knižnoe izdatel'stvo.

References

- Kumakhov M. A. 1964. *Morfologija adygskix jazykov. Sinxronno-diaxronnaja xarakteristika. I. Vvedenie, struktura slova, slovoobrazovanie častej reči* [Morphology of Circassian languages. A synchronic and diachronic characteristic. I. Introduction, word structure, derivation of parts of speech.]. Naľčik: Kabardino-balkarskoe knižnoe izdatel'stvo.
- Kumakhov M. A. 1989. *Sravnitel'no-istoričeskaja grammatika adygskix (čerkesskix) jazykov* [Historical-comparative grammar of the Circassian languages]. Moscow: Nauka.
- Lomtadidze K. V. 1983. Osnovnye tipy lokal'nyx preverbov v abxazskom i abazinskom jazykax [Main types of local preverbs in Abkhaz and Abaza]. In N.T. Tabulova & R.X. Temirova (eds.), *Sistema preverbov i poslelogov v iberijsko-kavkazskix jazykax* [System of preverbs and postpositions in Ibero-Caucasian languages], 10–13. Cherkessk.
- Lomtadidze K., R.N. Klychev & B. G. Hewitt. 1989. Abaza. In: B. G. Hewitt (ed.), *The Indigenous Languages of the Caucasus. Vol. 2. The North West Caucasian Languages*. Delmar, N.Y.: Caravan, 91–154.
- Mattissen J. 2006. The ontology and diachrony of polysynthesis. In: D. Wunderlich (ed.), *Advances in the Theory of the Lexicon*. Berlin, New York: Mouton de Gruyter, 287–353.

References

- Mithun M. 1984. The evolution of noun incorporation. *Language* 60(4), 847–894.
- Mithun M. 1997. Lexical affixes and morphological typology. In: J. Haiman, J. Bybee & S. Thompson (eds.), *Essays on Language Function and Language Type*. Amsterdam: John Benjamins, 357–372.
- O’Herin Br. 2002. *Case and Agreement in Abaza*. Arlington: SIL International.
- Rousseau A. (éd.) 1995. *Les Préverbes dans les langues d’Europe. Introduction à l’étude de la préverbation*. Lille: Presse Universitaires de Septentrion.
- Rose Fr. 2019. From classifiers to applicatives in Mojeño Trinitario: A new source for applicative markers. *Linguistic Typology* 23/3, 435–466.
- Spruit A. 1986. *Abkhaz Studies*. Doctoral dissertation, University of Leiden.
- Tabulova N. T. 1976. *Grammatika abazinskogo jazyka. Fonetika i morfologija [A Grammar of Abaza: Phonetics and Morphology]*. Čerkessk: Karačaevo-Čerkesskoe otdelenie Stavropol’skogo knižnogo izdatel’stva.
- Van linden, An. 2022. Spatial prefixes as applicatives in Harakmbut. In: S. Pacchiarotti & F. Zúñiga (eds.), *Applicative morphology: Neglected syntactic and non-syntactic functions*. Berlin, Boston: Mouton de Gruyter, 129–159.
- Zariquiey R. & D.A. Fleck. 2012. Body-part prefixation in Kashibo-Kakataibo: Synchronic or diachronic derivation? *International Journal of American Linguistics* 78(3), 385–409.