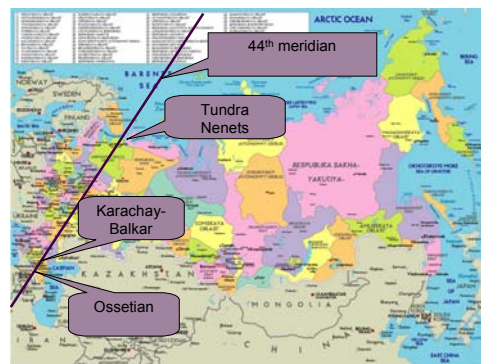


# Verbal Systems on the 44<sup>th</sup> Meridian

Düsseldorf, January 21, 2009  
Organizer: Sebastian Löbner



# Tundra Nenets

Recursion in Derivational Morphology

## Plot of this presentation

- 1. Introduction
- 2. Overview of the verbal system
- 3. Derivational morphology

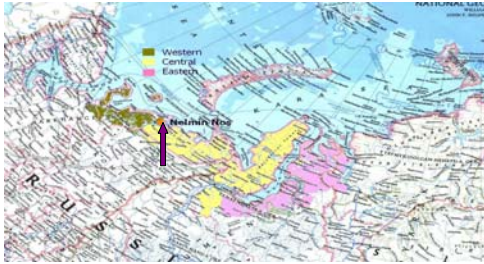
## 1. Introduction

- Tundra Nenets: genetic affiliation and location
- The project: goals, time, place, participants, informants, research strategy and techniques

## Tundra Nenets: Genetic Affiliation

Uralic  
  Samoyed  
    Enets  
    Selkup  
    Nganasan  
    Nenets  
      Forest Nenets  
      Tundra Nenets

## Tundra Nenets: Location and dialects



## The project

**Time:** 2004-current  
**Dialect:** Western  
**Location:** Nenets Autonomous District, Archangelskaya oblast  
**Source of data:** fieldwork  
**Goals:** determine semantic contribution of derivational morphology; identify and explain restrictions on its application  
**Current status:** activity, not (yet) an accomplishment

## The project: Goals

Tundra Nenets: rich and productive derivational morphology

- What happens to the argument structure and eventuality type of a verb stem when it combines with a derivational morpheme?
- What are constraints on the application of derivational morphemes?

## The project: example

√ jibləq 'think (that), be smart'  
 jibləd-or  
 √-FREQ 'think'  
 jibləd-or-pta  
 √-FREQ-CAUS 'make think', 'think'  
 jibləd-or-pta-l  
 √-FREQ-CAUS-INCH 'start making think'  
 ...  
 jibləd-or-pa  
 √-FREQ-DUR 'reflect'  
 jibləd-o-l  
 √-FREQ-INCH 'start thinking'  
 ...

## The project: Goals (cont.)

√ jibləq 'think (that), be smart'	jibləd-or-pa	√-FREQ-DUR 'reflect'
jibləd-or	jibləd-or-pta	√-FREQ-CAUS 'make think', 'think'
√-FREQ 'think'	jibləd-or-pta-l	√-FREQ-CAUS-INCH 'start making think'
jibləd-or-pta	...	
√-FREQ-CAUS 'make think', 'think'	jibləd-or-pa	√-FREQ-DUR 'reflect'
jibləd-or-pta-l	jibləd-o-l	√-FREQ-INCH 'start thinking'
√-FREQ-CAUS-INCH 'start making think'	...	

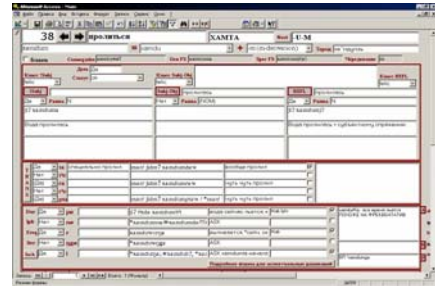
## The project: Goals

- Given a stem *S* and a derivational morpheme *d* we have to predict if *S+d* is well-formed and interpretable. If yes, we want to know
  - ☞ Argument structure of *S+d*
  - ☞ Eventuality type of *S+d*

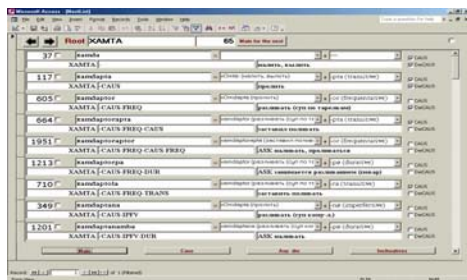
## The project: Research strategy

- 1. Create a sample of non-derived verbs in which all major argument structure types and eventuality types are represented
- 2. For every item in the sample, determine its derivational potential, i.e., the set of derivational morphemes this item can combine with
- 3. For every item in the sample, produce all available derivatives
- 4. Add derivatives to the sample
- 5. Collect information about eventuality type and argument structure of the new items in the sample
- 6. Repeat steps 2-5 for those new items

## The project: Database



## The project: Database



## Plot of this presentation

- 1. Introduction
- 2. Overview of the verbal system
- 3. Derivational morphology

## 2. Overview of the verbal system

Components of inflected finite verb forms (simplified; mood/modality markers not shown)

non-productive derivational morphology	productive derivational morphology	event structure modifiers	stem affixes	agreement	reference time
loxo -m	-ba-l	-i		-q	-sJ
boil -M	-DUR-INCH	RSE.SFS		3SGr	PST
M	M-derivation				
DUR	durative				
INCH	inchoative				
RSE	result subevent				
SFS	special finite stem				
3SGr	3d person singular, reflexive conjugation				
PST	reference time in the past				

## Background

- Tapani Salminen. 1997. *Tundra Nenets inflection*. *Memoires de la Societe Finno-Ougrienne* 227; Helsinki.
- *A morphological dictionary of Tundra Nenets*. Compiled by Tapani Salminen. *Lexica Societatis Fenno-Ugricae* 26; Helsinki 1998.
- <http://www.helsinki.fi/~tasalmin/tn.html>

## Background

- Terminology and category labels are identical to Salminen's unless otherwise indicated
- Examples come in phonetic transcription rather than in Salminen's phonological representation.

## Overview of the verbal system

Verb stems fall into two types: perfective and imperfective.

- Perfective stems yield forms that refer to a culmination in the past.
    - maša xidła-mh xalta.  
M. plate-ACC wash.GFS.3SGs  
*Masha washed a plate.*
  - Imperfective stems yield clauses that refer to a situation going on at the moment of speech.
    - wasła maša-mh Natłe.  
V. M.-ACC wait.GFS.3SGs  
*Vasja is waiting for Masha.*
- ☞ (1)-(2) are morphologically identical

## Overview of the verbal system

√ non-productive derivational morphology	productive derivational morphology	event structure modifiers	stem affixes	agreement	reference time
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## Reference time

Reference time in the past: the -sJ morpheme

- sJ in combination with imperfective stems/verb forms: past imperfective
  - wasła maša-mh Natłe-sJ.  
V. M.-ACC wait.GFS.3SGs-PST  
*{When I saw him,} Vasja was waiting for Masha.*
- sJ in combination with perfective stems/verb forms: pluperfect
  - maša xidła-mh xalta-sJ.  
M. plate-ACC wash.GFS.3SGs-PST  
*{When I came,} Masha had already washed a plate.*

## Overview of the verbal system

√ non-productive derivational morphology	productive derivational morphology	event structure modifiers	stem affixes	agreement	reference time
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## Agreement

- Three conjugations
  - ☞ Subjective
  - ☞ Objective
  - ☞ Reflexive

## Agreement morphology (*me-* 'take' и *te-* 'flow')

Subjective conjugation			
	SG	DU	PL
I person	me=dm    me=mh	me=nhh	me=waq
II person	me=n	me=dhh	me=daq
III person	me	meNa=xh	me=q
Objective conjugation: singular object			
I person	me=w	me=mhh	me=waq
II person	me=r	me=rhh	me=raq
III person	me=da	me=dhh	me=doh
Objective conjugation: dual object			
I person	meNa=xju=n	meNa=xju=nhh	meNa=xju=naq
II person	meNa=xju=d	meNa=xju=dhh	meNa=xju=daq
III person	meNa=xju=da	meNa=xju=dhh	meNa=xju=doh
Objective conjugation: plural object			
I person	meja=n	mej=nhh	mej=naq
II person	meja=d	mej=dhh	mej=daq
III person	mej=da	mej=dhh	mej=doh
Reflexive conjugation			
I person	teja=wq	tej=nhh	tej=naq
II person	teja=n	tej=dhh	tej=daq
III person	teja=q tej' =q	teja=xh tejo=x'h	teja=dq tejo=d'q

## Agreement: Conjugations

- Subjective conjugation
- (5) weneko madar-Na.  
dog bark-GFS.3SGs  
*The dog is barking.*
- Objective conjugation
- (6) weneko Naciki-mh madar-Na-da.  
dog boy-ACC bark-GFS-3SGo  
*The dog barked at the boy.*
- Reflexive conjugation
- (7) weneko madar-j-q.  
dog bark-SFS-3SGr  
*The dog started barking.*

## Agreement: Conjugations

"Conjugation forms" differ in terms of argument structure and aspectual characteristics

- (5), subjective conjugation: intransitive, imperfective
- (6), objective conjugation: transitive, perfective
- (7), reflexive conjugation: intransitive, perfective

## Subjective forms: trivial and non-trivial

- Trivial subjective forms are identical to objective forms in terms of aspectual properties and/or argument structure.
- (8) waska petka-mh juta.  
V. P.-ACC beat.GFS.3SGs  
*Vasja beat Petja up.*
- (9) waska petka-mh juta-da.  
V. P.-ACC beat.GFS-3SGo  
*Vasja beat Petja up.*

## Subjective forms: trivial and non-trivial

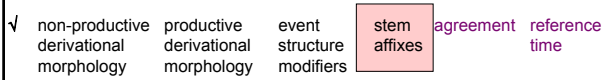
- Non-trivial subjective forms differ from objective forms in aspectual properties and/or argument structure

- (10) weneko madar-Na.  
dog bark-GFS.3SGs  
*The dog is barking.*
- (11) weneko Naciki-mh madar-Na-da.  
dog boy-ACC bark-GFS-3SGo  
*The dog barked at the boy*

## Subjective forms: trivial and non-trivial

- Any clause that comes with "objective" morphology always have a trivial "subjective" counterpart
- (11) weneko Naciki-mh madar-Na-da. **OBJECTIVE**  
dog boy-ACC bark-GFS-3SGo  
*The dog barked at the boy.*
- (12) weneko Naciki-mh madar-Na. **SUBJECTIVE**  
dog boy-ACC bark-GFS.3SGs  
*The dog barked at the boy.*
- **We only look at non-trivial subjective forms.**

## Overview of the verbal system



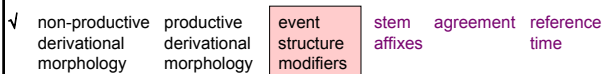
## Stem affixes

- General finite stem (GFS)
- Special finite stem (SFS)
- Dual object stem (DOS)

....

See Salminen 1997 for further detail

## Overview of the verbal system



## Event structure modification: the -yo- morpheme

xona-sJ

fall.asleep.GFS-INF

*fall asleep*

xona + yo → xonJ-o-sJ

fall.asleep RSE fall.asleep-RSE.GFS-INF

*sleep*

## Event structure modification: the -yo- morpheme

- Entry into a state of sleeping; perfective

(13) wask xone-j-q.  
V. fall.asleep-SFS-3SGr  
*Vasja fell asleep.*

- A state of sleeping; imperfective

(14) wask xon-i.  
V. fall.asleep-RSE.GFS.3SGs  
*Vasja is sleeping.*

☞ The -yo- morpheme externalizes the result subevent

## Event structure modification: the -yo- morpheme

The -yo- morpheme attaches on top of derivational morphemes:

(15) wask jid-mh xamda-la.  
V. water-ACC pour-INCH.GFS.3SGs  
*Vasja started pouring water.*

(16) a. jiq xamda-l-i.  
water pour-INCH-RSE.GFS.3SGs  
*The water is pouring.*

b.\* wask jid-mh xamda-l-i.  
V. water-ACC pour-INCH-RSE.GFS.3SGs  
*Vasja started pouring / is pouring water.*

## Overview of the verbal system

√ non-productive derivational morphology	productive derivational morphology	event structure modifiers	stem affixes	agreement	reference time
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## Non-productive derivational morphology

Non-productive derivational morphology: -m-; -s-; -n-.

- **Phonology:** one segment
- **Semantics:** non-compositional
- **Argument structure:** not predictable

(17) wask jid-mh xamd-a.  
V. water-ACC pour-GFS.3SGs  
*Vasja poured water (in a cup).*

(18) jiq xamdu-m-a.  
water pour-M-GFS.3SGs  
*The water splashed.*

## Overview of the verbal system

√ non-productive derivational morphology	productive derivational morphology	event structure modifiers	stem affixes	agreement	reference time
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## Productive derivational morphology

- Inchoative
- Durative
- Imperfective
- Frequentative
- Iterative
- Causative

## Productive derivational morphology

### Inchoative

- (19) a. wask wark-xad plina.  
V. bear-ABL fear.GFS.3SGs  
*Vasja fears the bear.*
- b. wask wark-xad plina-l-Na.  
V. bear-ABL fear-**INCH**-GFS.3SGs  
*Vasja got frightened of the bear.*

## Productive derivational morphology

### Durative

- (20) a. wask xida-mh xalta.  
V. plate-ACC wash.GFS.3SGs  
*Vasja washed a plate.*
- b. wask xida-mh xalta-**mb**-i.  
V. plate-ACC wash-**DUR**-GFS.3SGs  
*Vasja is washing/ washes a plate.*

## Productive derivational morphology

### Imperfective

- (21) a. wesako xa.  
old.man die.GFS.3SGs  
*The old man died.*  
b. wesako xa-na.  
old.man die-IPFV.GFS.3SGs  
*The old man is dying.*  
*Old men die.*

## Productive derivational morphology

### Frequentative

- (22) a. jaxadlej salle-q.  
female.deer return.SFS-3SGr  
*The deer came back.*  
b. jaxadlej salu-r-Na.  
female.deer return-FREQ-GFS.3SGs  
*The deer is walking in and out.*

## Productive derivational morphology

### Iterative

- (23) a. jaxadlej salle-q.  
female.deer return.SFS-3SGr  
*The deer came back.*  
b. jaxadlej sal-Nga.  
female.deer return-ITER.GFS.3SGs  
*The deer comes back from time to time.*

## Productive derivational morphology

### Causative

- Causative of unaccusative
- (24) a. jimbit Nadara.  
dress tear.GFS.3SGs  
*The dress tore.*  
b. manJ jimbit-mh Nadara-pta-w.  
I dress-ACC tear-CAUS.GFS-1SGo  
*I tore the dress.*

## Productive derivational morphology

### Causative

- Causative of transitive
- (25) a. wasla nkeranzla-mh ji-xana panda.  
V. bucket-ACC water-PROS fill.GFS.3SGs  
*Vasja filled a bucket with water.*  
b. manJ nkeranzla-mh ji-xana wasla-nh panda-pta-w.  
I bucket-ACC water-PROS V.-DAT fill-CAUS.GFS-1SGo  
*I made Vasja fill a bucket with water.*

## Plot of this presentation

- 1. Introduction
- 2. Overview of the verbal system
- 3. Derivational morphology



### 3. Derivational morphology

- Classes of non-derived verb stems
- Productive derivational morphology: causativization

### Non-derived verbs

- Classification is based on argument structure and aspectual interpretation of a given stem combined with subjective, objective and reflexive morphology

### Non-derived verbs

#### Abbreviations

- **S**: non-trivial subjective conjugation
- **SO**: objective and trivial subjective conjugation
- **R**: reflexive conjugation

### Classes of non-derived verbs: Intransitives

- Telic S-intransitives
- Atelic S-intransitives
- R-intransitives
- Ingressive-telic S-R-intransitives
- Ingressive-atelic S-R-intransitives

### Classes of non-derived verbs

#### Telic S-intransitives

<b>Conjugation</b>	S	SO	R
<b>Aspect</b>	<i>Perfective</i>	—	—

**Members of the class:** 'come', 'enter', 'die', 'cook, be boiled', 'start boiling', 'break', 'get lost'

(26) *wasla* *xa*.  
V. die.GFS.3SGs  
*Vasja died.*

(27) *wasla* *Skola-nh* *to*.  
V. school-DAT come.GFS.3SGs  
*Vasja came to the school.*

### Classes of non-derived verbs

#### Atelic S-intransitives

<b>Conjugation</b>	S	SO	R
<b>Aspect</b>	<i>Imperfective</i>	—	—

**Members of the class:** 'be scared, fear', 'be visible', 'be audible', 'be smart, clever', 'be sleeping', 'walk', 'itch', 'eat soup'

(28) *wasla* *Nadli*.  
V. be.visible.GFS.3SGs  
*Vasja is visible.*

## Classes of non-derived verbs

### R-intransitives (telic only)

Conjugation	S	SO	R
Aspect	—	—	Perfective

**Members of the class:** 'sit down', 'start flying', 'start swimming', 'catch fire', 'become glad', 'blow out', 'fill', 'exit', 'go to bed', 'rise'

(29) nĕranzā pani-q.  
 bucket fill.SFS-3SGr  
*The bucket filled.*

## Classes of non-derived verbs

### Ingressive-telic S-R-intransitives

Conjugation	S	SO	R
Aspect	Perfective	—	Perfective

- S-forms refer to a culminating process
- R-forms refer to the inception of that process

**Members of the class:** 'rot', 'pour', 'tear', 'get tired', 'get cold, freeze', 'dry', 'deepen', 'lengthen'

(30) a. tečā tira. b. tečā tire-j-q.  
 towel dry.GFS.3SGs towel dry-SFS-3SGr.  
*The towel dried. The towel started drying.*

## Classes of non-derived verbs

### Ingressive-atelic S-R-intransitives

Conjugation	S	SO	R
Aspect	Imperfective	—	Perfective

- S-forms refer to a non-culminating eventuality
- R-forms refer to the inception of that eventuality

**Members of the class:** 'be scared, fear', 'be glad, happy', 'talk', 'fly', 'swim', 'wave', 'sit', 'listen', 'laugh', 'shoot', 'be on display', 'be hidden'

(31) a. wasā sarmika-xad pīna.  
 V. wolf-ABL be.scared.GFS.3SGs  
*Vasja is scared of a wolf.*  
 b. wasā sarmika-xad pīn-i-q.  
 V. wolf-ABL be.scared-SFS-3SGr  
*Vasja got frightened of a wolf.*

## Classes of non-derived verbs: Transitives

- Telic SO-transitives
- Atelic SO-transitives
- Telic S-SO-transitives
- Telic SO-R-transitives
- Ingressive-atelic SO-R-transitives
- S-SO-R-transitives

## Classes of non-derived verbs

### Telic SO-transitives

Conjugation	S	SO	R
Aspect	—	Perfective	—

**Objective and trivial subjective forms refer to a culminating eventuality**

**Members of the class:** 'receive', 'take', 'give', 'find', 'lose', 'beat', 'scratch', 'break', 'tear'

(32) wasā śanako-mh maġa-da.  
 V. toy-ACC break.GFS-AOR.3SGo  
*Vasja broke his toy.*

## Classes of non-derived verbs

### Atelic SO-transitives

Conjugation	S	SO	R
Aspect	—	Imperfective	—

**Objective and trivial subjective forms refer to a non-culminating eventuality**

**Members of the class:** 'wait', 'know', 'love', 'herd deers in the night'

(33) wasā maša-mh Natġ.  
 V. M.-ACC wait.GFS.3SGs  
*Vasja is waiting for Masha.*

## Classes of non-derived verbs

### Telic S-SO-transitives

Conjugation	S	SO	R
Aspect	Perfective	Perfective	—

- SO-forms refer to a change of state of the internal argument induced by (the activity of) the external argument
- S-forms refer to the change of state only

Members of the class: 'leave'

- (34) a. manJ xaru xar-danan xaji-w.  
I knife.ACC home-LOC leave.GFS-1SGo  
*I left the knife at home.*  
b. wasla xar-danan xaji.  
V. home-LOC leave.GFS.3SGs  
*Vasja stayed home.*

## Classes of non-derived verbs

### Telic SO-R-transitives

Conjugation	S	SO	R
Aspect	—	Perfective	Perfective

- SO-forms refer to a change of state of the internal argument induced by (the activity of) the external argument
- R-forms: two types of verbs
  - Agent preserving R-forms: change of state of the external argument; various types of middle interpretations
  - Patient preserving R-forms: change of state of the internal argument

## Classes of non-derived verbs

### Telic SO-R-transitives: Agent preserving verbs

- SO-forms refer to a change of state of the internal argument induced by (the activity of) the external argument
- R-forms refer to the change of state of the external argument

Members of the class: 'throw', 'eat', 'drink', 'read', 'bite', 'kiss', 'bark', 'dress', 'smear'

- (35) a. wasla pe-mh mo. b. wasla (luq-udq) mo-j-q.  
V. stone-ACC throw.GFS.3SGs V. height-from throw-SFS-3SGr  
*Vasja threw a stone.* *Vasja threw himself from the height.*  
(36) a. pida jabloko-mh Nam-a. b. pida Nam-j-q.  
he apple-ACC eat-GFS.3SGs he eat-SFS-3SGr  
*He ate an apple.* *He ate his full.*

## Classes of non-derived verbs

### Telic SO-R-transitives: Patient preserving verbs

- SO-forms refer to a change of state of the internal argument induced by (the activity of) the external argument
- R-forms refer to the change of state of the internal argument

Members of the class: 'pour, pour out', 'rock, move', 'hide, disappear', 'hear', 'hit, get hit', 'pinch'

- (37) a. wasla jid-mh xamda-da. b. jiq xamde-j-q.  
V. water-ACC pour.GFS-3SGo water pour-SFS-3SGr  
*Vasja poured the water out.* *The water poured out.*

## Classes of non-derived verbs

### Ingressive-atelic SO-R-transitives

Conjugation	S	SO	R
Aspect	—	Imperfective	Perfective

Members of the class: 'want'

- (38) a. Naceki sanako-mh xarwa.  
child toy-ACC want.GFS.3SGo  
*The child wants a toy.*  
b. Naceki sanako-nh xarwe-j-q.  
child toy-DAT want-SFS-3SGr  
*The child started wanting a toy.*

## Classes of non-derived verbs

### S-SO-R-transitives

Conjugation	S	SO	R
Aspect	Imperfective	Perfective	Perfective

Members of the class: 'bark', 'rain', 'wash'

- (39) weneko madar-Na. SUBJECTIVE  
dog bark-GFS.3SGs  
*The dog is barking.*  
(40) weneko Naciki-mh madar-Na-da. OBJECTIVE  
dog boy-ACC bark-GFS-AOR.3SGo  
*The dog barked at the boy.*  
(41) weneko Naciki-nh madar-j-q. REFLEXIVE  
dog boy-DAT bark-SFS-3SGr  
*The dog started barking at the boy.*

## Classes of non-derived verbs

### S-SO-R-transitives

<b>Conjugation</b>	S	SO	R
<b>Aspect</b>	<i>Imperfective</i>	<i>Perfective</i>	<i>Perfective</i>
<b>Members of the class:</b> 'bark', 'rain', 'wash'			
(42)	sarku	xawna.	<b>SUBJECTIVE</b>
	rain	rain.GFS.3SGs	
	<i>It is raining.</i>		
(40)	num	sarɔ-mh	<b>OBJECTIVE</b>
	god	rain-ACC	rain.GFS-AOR.3SGo
	<i>The god poured rain.</i>		
(41)	sarku	xawni-q.	<b>REFLEXIVE</b>
	rain	rain.SFS-3SGr	
	<i>It started raining.</i>		

## Causativization



## Causatives: Direct vs. indirect

### ■ Direct (monoeventive) vs. indirect (bieventive)

- (42) a. ja loxom-a.      b. manJ jedmh loxom-pta-w.  
 soup boil-GFS.3SGs      I soup.ACC boil-CAUS.GFS.1SGo  
*The soup boiled.*      *I boiled the soup.*
- (43) a. wasla jewejn-Na.      b. manJ waslamh jewejn-pta-w.  
 V. eat.soup-GFS.3SG      I V.ACC eat.soup-CAUS.GFS.1SGo  
*Vasja is eating soup.*      *I made Vasja eat soup.*

## Causatives: Direct vs. indirect

### ■ Direct (monoeventive) vs. indirect (bieventive)

- (44) a. petka wasla-mh lada.  
 P. V-ACC hit.GFS.3SGs  
*Petja hit Vasja.*
- b. manJ petka-nh wasla-mh lada-pta-w.  
 I P-DAT V-ACC hit-CAUS.GFS.1SGo  
*I made Petja hit Vasja.*

## Causatives: Scope of adverbials

### ■ Monoeventive: unambiguous

- (45) manJ sɪdla minut-xana jed-mh loxom-pta-w.  
 I two minutes-LOC soup-ACC boil-CAUS-GFS.1SGo  
 1. *I boiled the soup in two minutes.*  
 2. *\*I did something in two minutes so that the soup boiled.*  
 3. *\*I did something so that the soup boiled in two minutes.*

## Causatives: Scope of adverbials

### ■ Bieventive: adverbials can take scope over causing and caused events independently

#### Scope over the causing event

- (46) manJ sɪdla minut-xana wasla-mh jewejn-pta-w.  
 I two minutes-LOC V.-ACC eat.soup-CAUS.GFS.1SGo  
*What I did in two minutes was make Vasja eat up (the) soup.*

#### Scope over the caused event

- (47) manJ sɪdla minut wasla-mh jewejn-pta-w.  
 I two minutes V.-ACC eat.soup-CAUS.GFS.1SGo  
*What I did was make Vasja eat soup for two minutes.*

## Causatives: Direct vs. indirect

For intransitives, semantic characteristics of the causative (mono- vs. bi-eventive) are not generally predictable from the class membership of the non-derived stem

### ■ Atelic S-intransitives

#### Indirect causative

(48) a. *wasla jada.*

V. walk.GFS.3SGs  
*Vasja is walking.*

b. *manJ petja-mh<sup>OK</sup>(silda minut) jada-pta-w.*  
I P.-ACC two minute walk-CAUS.GFS-1SGo  
*I made Petja walk (for two minutes).*

## Causatives: Direct vs. indirect

### ■ Atelic S-intransitives

#### Direct causative

(49) a. *wasla (maša-xana) Nadli.*

V. M.-LOC be.visible.GFS.3SGs  
*Vasja is visible (to Masha).*

b. *manJ wasla-mh (maša-xana) Nadli-pta-w.*

I V.-ACC M.-LOC be.visible-CAUS.GFS-1SGo  
*I showed Vasja (to Masha).*

c. *\*manJ wasla-mh (maša-xana) silda minut Nadli-pta-w.*

I V.-ACC M.-LOC two minute be.visible-CAUS.GFS-1SGo

*I caused Vasja to be visible (to Masha) for two minutes.*

## Causatives: Class membership

- Class membership of a causative *is* predictable
- Causatives are all patient-preserving telic SO-R transitives

## Causatives: Class membership

### Telic SO-R-transitives: Patient preserving

Conjugation	S	SO	R
Aspect	—	Perfective	Perfective

- SO-forms refer to a change of state of the internal argument induced by the external argument

- R-forms refer to the change of state of the internal argument

Members of the class: 'pour, pour out', 'rock, move', 'hide, disappear', 'hear', 'hit, get hit', 'pinch'

(50) a. *wasla jid-mh xamda-da.* b. *jiq xamde-j-q.*  
V. water-ACC pour.GFS-3SGo water pour-SFS-3SGr  
*Vasja poured the water out.* *The water poured out.*

## Causatives: Class membership

### Direct causative:

- SO-form

(51) *manJ jedmh loxom-pta-w.*  
I soup.ACC boil.intr-CAUS.GFS-1SGo  
*I boiled the soup.*

- R-form

(52) *jaq loxom-pte-j-q.*  
soup boil.intr-CAUS-SFS-3SGr  
*The soup started boiling.*

## Causatives: Class membership

### Direct causative:

- SO-form

(53) *manJ wasla-mh jewejn-pta-w.*  
I V.-ACC eat.soup-CAUS.GFS-1SGo  
*I made Vasja eat soup.*

- R-form

(54) *wasla jewejn-pte-j-q.*  
V. eat.soup-CAUS-SFS-3SGr  
*Vasja started eating soup.*

## Causatives: R-forms

- R-forms cancel out the effect of causativization?

(55) *wasla xarda-xa-nda xaji.*

V. home-LOC-3SG leave.GFS.3SGs

*Vasja left home.*

(56) *wasla xar-daxa-nda xaju-pte-j-q.*

V. home-LOC-3SG leave-CAUS-SFS-3SGr

*Vasja left home because of something.*

(57) *wasla sarlo-jekad xarda-xa-nda xaju-pte-j-q.*

V. rain-because.of home-LOC-3SG leave-CAUS-SFS-3SGr

*Vasja left home because of the rain.*

- ☞ In the event structure of causative forms there still is a causing subevent

## Causatives: R-forms

### R-form of causatives from transitives

(58) *manJ petla-nh wasla-mh lada-pta-w.*

I P.-DAT V.-ACC hit-CAUS.GFS-1SGo

*I made Petja hit Vasja.*

(59) *wasla petla-nh lada-pte-j-q.*

V. P.-DAT hit-CAUS-SFS-3SGr

*Vasja got hit by Petja, since Petja had some reason to do so.*

- Theme is a subject
- Causee (Petja) retains Dative case marking
- Causal factor: "some reason"

## Causatives: Further derivation

- Causative undergoing further derivation

- ☞ Durative
- ☞ Frequentative
- ☞ Causative

## Causatives: Further derivations

### Causative + Durative

- Monoeventive causative

(60) *wasla tecla-mh tira-pta.*

V. towel-ACC dry-CAUS.GFS.3SGs

*Vasja dried the towel.*

(61) *wasla tecla-mh tira-pta-mbli.*

V. towel-ACC dry-CAUS-DUR.GFS.3SGs

1. *Vasja is drying the towel.*

2. *Vasja dries the towel.*

## Causatives: Further derivations

### Causative + Durative

- Bi-eventive causative

(62) *manJ petla-nh wasla-mh lada-pta-mbli-w.*

I P.-DAT V.-ACC hit-CAUS-DUR.GFS-1SGo

*I am making Petja hit Vasja.*

1. <sup>OK</sup> Petja is hitting Vasja.

2. <sup>OK</sup> Petja is not yet hitting Vasja.

- ☞ 1: Durative takes scope over both events
- ☞ 2: Durative only takes scope over the causing event

## Causatives: Further derivations

### Causative + Frequentative

Frequentative resembles Durative as to the range of possible scope relations

(63) *manJ kniga-mh petla-nh pada-pta-w.*

I book-ACC P.-DAT write-CAUS.GFS-1SGo

*I made Petja write a book.*

(64) *manJ kniga-mh petla-nh pada-pt-or-Na-w.*

I book-ACC P.-DAT write-CAUS-FREQ-GFS-1SGo

1. *Repeatedly, I made Petja write a book.*

2. *What I did repeatedly was make Petja write a book.*

- ☞ 1: Frequentative takes scope over both events
- ☞ 2: Frequentative only takes scope over the causing event

## Causatives: Further derivations

### Causative + Frequentative

Peculiarity of Frequentative: unlike for Durative, non-trivial S-forms are systematically available

⇒ Causative

- (65) manJ Načiki-mh manza-pt-a-w.  
I kid-ACC joggle.intr-CAUS.GFS-1SGo  
I joggled the kid.
- (66) \*manJ manza-pt-a-m.  
I joggle.intr-CAUS.GFS-1SGs
- (67) \*Načiki manza-pt-a.  
kid joggle.intr-CAUS.GFS.3SGs

## Causatives: Further derivations

### Causative + Frequentative

Peculiarity of Frequentative: unlike for Durative, non-trivial S-forms are systematically available

⇒ Causative + Durative

- (68) manJ Načiki-mh manza-pt-a-mbji-w.  
I kid-ACC joggle.intr-CAUS-DUR.GFS-1SGo  
I joggled the kid.
- (69) \*manJ manza-pt-a-mbji-m.  
I joggle.intr-CAUS-DUR.GFS-1SGs
- (70) \*Načiki manza-pt-a-mbji.  
kid joggle.intr-CAUS-DUR.GFS.3SGs

## Causatives: Further derivations

### Causative + Frequentative

Peculiarity of Frequentative: unlike for Durative, non-trivial S-forms are systematically available

⇒ Causative + Frequentative

- (71) manJ Načiki-mh manza-pt-or-Na-w. **OBJECTIVE**  
I kid-ACC joggle.intr-CAUS-FREQ-GFS-1SGo  
*Repeatedly, I joggle the kid.*
- (72) Načiki manza-pt-or-Na. **SUBJECTIVE**  
kid joggle.intr-CAUS-FREQ-GFS.3SGs  
*The kid joggles.*

## Causatives: Further derivations

### Causative + Frequentative

S-form cancels out the effect of causativization?

- (73) manJ kniga-mh petja-nh pada-pt-or-Na-w.  
I book-ACC P.-DAT write-CAUS-FREQ-GFS-1SGo  
1. *Repeatedly, I made Petja write a book.*  
2. *What I did repeatedly was make Petja write a book.*
- (74) wasja pada-pt-or-Na.  
V. write-CAUS-FREQ-GFS.3SGs  
*Vasja is writing repeatedly.*

## Causatives: Further derivations

### Causative + Frequentative

■ Non-derived stem -FREQ vs. ...-CAUS-FREQ

- (75) Namza xanlim-bt-or-Na.  
meat freeze.intr-CAUS-FREQ-GFS.3SGs  
*The meat is slightly freezing.*
- (76) Namza xanliw-or-Na.  
meat freeze.intr-FREQ-GFS.3SGs  
*The meat is slightly freezing.*

**Scenario 1:** The meat was put in the freezer:  
both OK

**Scenario 2:** The meat was unintentionally left in the frost:  
CAUS-FREQ is odd

## Causatives: Further derivations

### Causative + Frequentative

■ Non-derived stem -FREQ vs. ...-CAUS-FREQ

- ⇒ In a context denying explicitly external causation, frequentatives derived from causatives are systematically awkward.
- ⇒ In the event structure of non-trivial S-forms there still is a causing subevent.

## Causatives: Further derivations

### Causative + Causative

(77) petja malka-mh tira-**pta**.

P. shirt-ACC dry.intr-CAUS.GFS.3SGs

*Petja dried his shirt.*

(78) \*manJ petja-nh malka-mh tira-**pta-pta-w**.

I P.-DAT shirt-ACC dry.intr-CAUS-CAUS.GFS-1SGo

*I made Petja dry his shirt.*

(79) manJ petja-nh malka-mh tira-**pta-~~f~~pta-w**.

I P.-DAT shirt-ACC dry.intr-CAUS-INCH-CAUS.GFS-1SGo

*I made Petja dry his shirt.*

## Causatives: Further derivations

### Causative + Causative

(80) wask xarad-mh maser-pta-da.

V. house-ACC paint-CAUS.GFS-3SGo

*Vasja painted (his) house.*

(81) \*manJ wask-nh xarad-mh maser-pta-pta-w.

I. V.-DAT house-ACC paint-CAUS-CAUS.GFS-3SGo

*I made Vasja paint the house.*

(82) manJ wask-nh xarad-mh maser-pt-or-pta-w.

I. V.-DAT house-ACC paint-CAUS-FREQ-CAUS.GFS-3SGo

*I made Vasja paint the house.*

➤ Two causative morphemes have to be 'mediated' either by Frequentative or by Inchoative

- Much work is still to be done...