"What I did over my summer vacation"

"Word-Formation as Grammaticalized Metonymy: A Contrastive Study of Russian, Czech, and Norwegian"

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Main Idea

- **Role of metonymy in grammar**
  - Metonymy as the motivating force for **word-formation**
  - Metonymy is **more** diverse in grammar than in lexicon
- Why this has been previously ignored
  - Most linguistic research on metonymy has focused on
    - lexical phenomena
    - **languages with relatively little word-formation**

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Overview

1. The Big Picture: why study metonymy in grammar?
   - Cognitive structure of information
2. Relevant Previous Scholarship
3. Databases: Russian, Czech, Norwegian
   - Size & structure of databases
   - Metonymy & Word class designations
   - Specificity of suffixes
4. Observations
   - Comparison across domains (lexicon vs. grammar)
   - Directionality of metonymy
   - Comparison across languages
5. Conclusions

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1. The Big Picture

- Metonymy is a way of establishing a **mental address system**
- A more salient item (vehicle) is used to access another item (target)

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Example 1 of (lexical) metonymy

- *We need a <u>good head</u> for this project*

(good) head **vehicle** part	*(smart) person* **target** whole

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Example 2 of (lexical) metonymy

- *The <u>milk</u> tipped over*

milk **vehicle** contained	*glass* **target** container

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Russian example of grammatical metonymy

- *брюхан* 'pot-bellied person'

брюхо **vehicle** part	*брюхан* **target** whole

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Czech example of grammatical metonymy
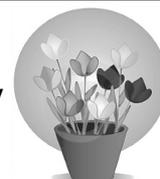
- *květináč* 'flower-pot'

květina **vehicle** contained	*květináč* **target** container

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Why study grammatical metonymy?

- Grammatical structures are more systematic, more indicative of information structure than lexical structures
- Compare lexical vs. grammatical metonymy
- Compare grammatical metonymy across languages
- May indicate information structure in brain

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2. Relevant Previous Scholarship

- Works on metonymy
  - say almost nothing about word-formation
- Works on word-formation
  - say almost nothing about metonymy

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Works on metonymy

- Focus on lexical metonymy and on describing difference between metonymy and metaphor
- **Jakobson [1956] 1980**; Lakoff & Johnson 1980; Lakoff 1987; **Langacker 1993**; Croft 1993; Kövecses & Radden 1998; Radden & Kövecses 1999; Seto 1999; **Panther & Thornburg** 1999, **2002**, 2007; Barcelona 2002, Kövecses 2002, **Padučeva 2004**, **Peirsman & Geeraerts 2006**

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Jakobson [1956] 1980

- Metonymy is based on contiguity.
- "Also, as a rule, words derived from the same root, such as *grant -- grantor -- grantee* are semantically related by contiguity."
- "Thus the Russian word mokr-ica signifies 'wood-louse', but a Russian aphasic interpreted it as 'something humid', especially 'humid weather', since the root mokr- means 'humid' and the suffix -ica designates a carrier of the given property, as in nelepica 'something absurd', svetlice 'light room', temnica 'dungeon' (literally 'dark room')."
- Scholarship has neglected metonymy

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Langacker 1993

- "Metonymy is prevalent because our reference-point ability is fundamental and ubiquitous, and it occurs in the first place because it serves a useful cognitive and communicative function."
- "By virtue of our reference-point ability, a well-chosen metonymic expression lets us mention one entity that is salient and easily coded, and thereby evoke -- essentially automatically -- a target that is either of lesser interest or harder to name."
- Principles of relative salience:
  - human > non-human; whole > part; concrete > abstract; visible > non-visible; etc.

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Panther & Thornburg 2002

- Discuss role of metonymy and metaphor in English -*er*

Padučeva 2004

- Shows that the same metonymic semantic relation can be lexical in one language, but marked by word-formation in another

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Peirsman & Geeraerts 2006

- Most comprehensive inventory of metonymy designations
- Focuses primarily on lexical metonymy; grammatical uses do not involve word formation
- Serves as the basis for the system used in my databases
- Will serve as basis for comparisons also (henceforth "P&G")

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Works on word-formation

- Mainly lists of suffixes and/or relationships
- 3 Reference Grammars: Švedova 1980, Dokulil 1986, Faarlund et al. 1997
- Šanskij 1968, McFadden 1975, Maksimov 1975, Rasch 1977, Townsend 1978, **Lönngren 1978**, Andrews 1996, Janda & Townsend 2000, Townsend & Komar 2000, **Araeva 2009**

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Lönngren 1978

- Meanings of suffixes are relations rather than components, having a converting rather than additive function; 16 are "associative" and 46 are "situative"

Araeva 2009

- Mentions metonymy as a possible motive for word formation, but limited to whole-part/part-whole relationships; her examples are медведь 'bear' - медвежатина 'bearmeat', горох 'peas' - горошина 'pea', зверь 'animal' - зверье 'animals'

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3. Databases: Russian, Czech, Norwegian

- Based on data culled from Academy/Reference Grammar of each language
- Suffixal word-formation signalling metonymy
  - includes conversion (zero-suffixation)
- Each database is an inventory of **types**
  - no duplicates

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A **Type** is a unique combination of

- Metonymy designation: vehicle & target
  - *брюхан* is part-whole
  - *květináč* is contained-container
- Word class designation: vehicle & target
  - both *брюхан* and *květináč* are noun-noun
- Suffix

(See sample types on handout)

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What the databases do NOT contain

- Word formation that is not metonymical
  - hypocoristics
  - caritives
  - comparative adjectives & adverbs
  - secondary imperfectives
- Compounding
  - all types have only ONE root
- Isolated examples, dialectisms
- Information on frequency

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Challenges
in constructing the databases

- Allomorphy or separate suffixes?
- Overlap in metonymies (e.g., part-whole, contained-container, located-location, possessed-possessor)
- Examples with multiple interpretations (e.g., Norwegian *maling* 'paint, painting')
- Extending the P&G inventory to cover all attested types (see next slide)

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Vehicles & Targets

- Relating to **Actions**: action, state, change state, event, manner, time, price-ticket (Czech)
- Relating to **Participants**: agent, product, patient, instrument
- Relating to **Entities**: entity, abstraction, characteristic, group, leader, material, quantity, female (target only), male (target only)
- Relating to **Part-Whole**: part, whole, contained, container, located, location, possessed, possessor
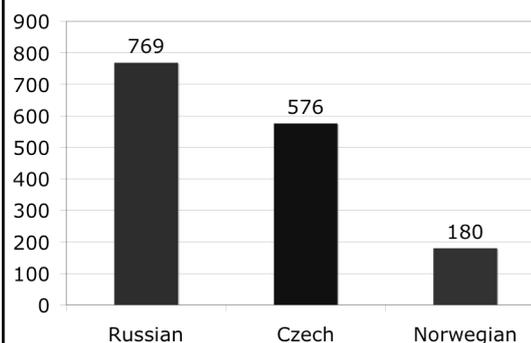
Underlined items have been added
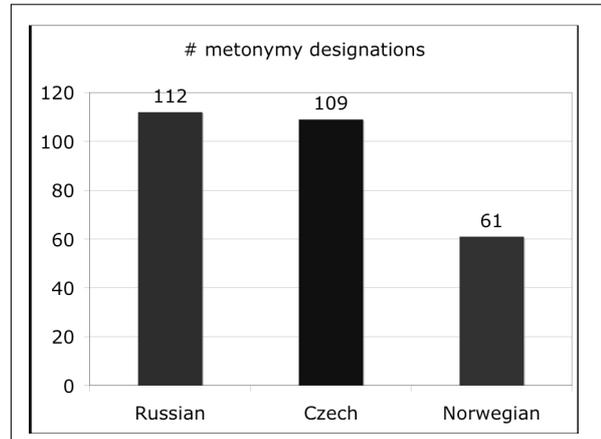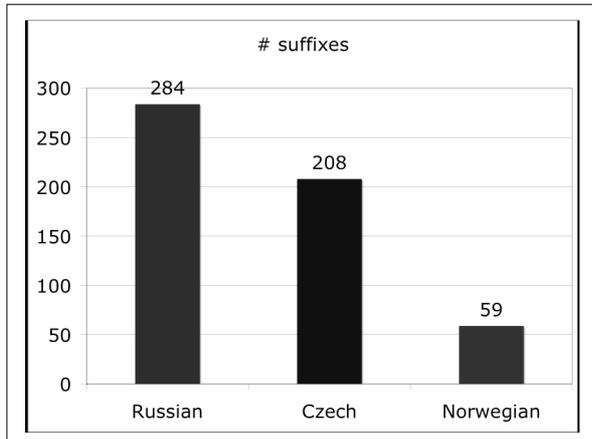More distinctions made within Actions and Participants   22

Vehicles & Targets are not "components"

- I do **not** assume a componential analysis via vehicles and targets!
- The unit is the vehicle-target relationship -- a construction that is not just the sum of parts
- Each vehicle-target relationship is unique
- For example, action-agent is different from action-product, not just because of the second member of the relationship

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 # types

	# types
Russian	769
Czech	576
Norwegian	180

suffixes

Russian	Czech	Norwegian
284	208	59

metonymy designations

Russian	Czech	Norwegian
112	109	61

Top 13 Metonymy Designations

- 10 items found on all 3 top 13 lists:
  - abstraction-characteristic
  - action-abstraction
  - action-agent
  - action-characteristic
  - action-instrument
  - action-product
  - characteristic-abstraction
  - entity-characteristic
 - characteristic-entity
  - action-event

action is vehicle for six of them!

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Word-class designations

- Vehicles and targets common to all three languages:
  - adverb, noun, numeral, qualitative adjective, relational adjective, verb
- Vehicles found only in Russian and Czech:
  - pronoun, interjection, sound, preposition (R only).

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 # word class designations

Russian	33
Czech	24
Norwegian	12
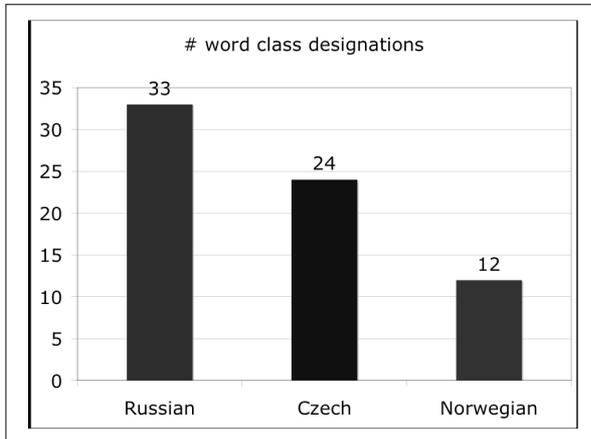
Top Ten Word Class Designations
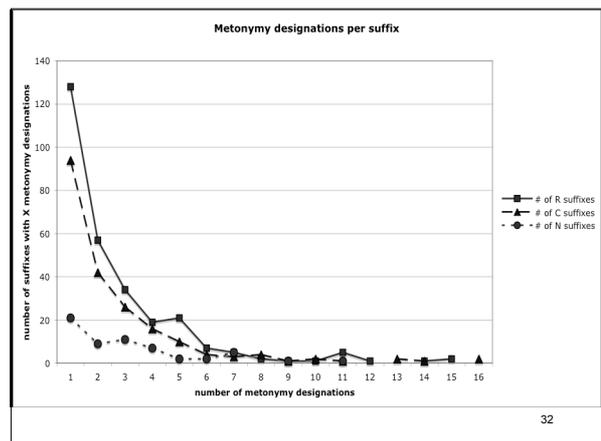
- 8 items found on all 3 top 10 lists:
  - noun-noun
  - verb-noun
  - noun-relational adjective
  - qualitative adjective-noun
  - noun-qualitative adjective
  - noun-verb
  - verb-qualitative adjective
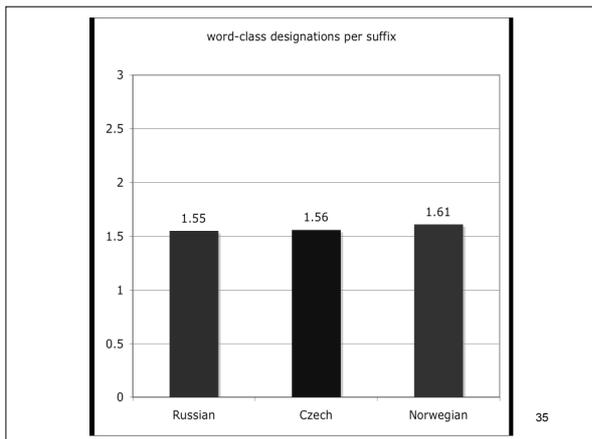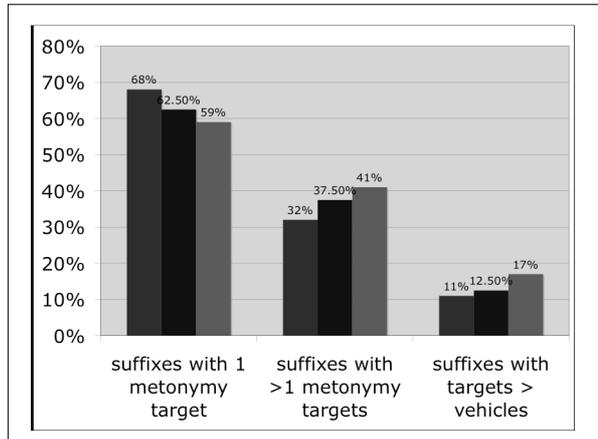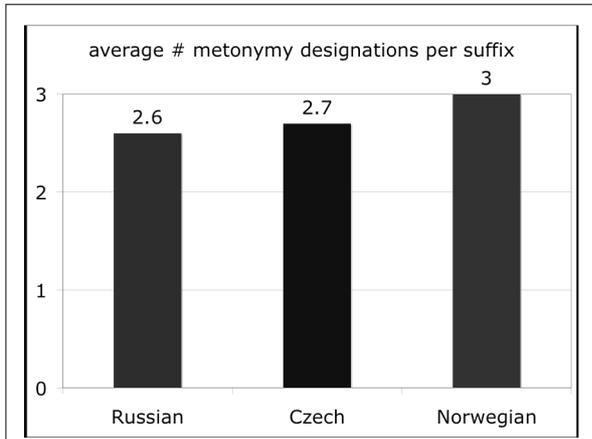 - relational adjective-noun

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To what extent does a suffix specify metonymy?

- Number of metonymies per suffix
  - Highs: 16 (Czech), 15 (Russian), 11 (Norwegian) metonymies per suffix
  - Lows: only one metonymy for 128 suffixes (Russian), ... 94 suffixes (Czech), 21 suffixes (Norwegian)
  - Average is about 3 metonymies per suffix
- Number of targets per suffix
  - 60% have only one target, but 15% have **more** targets than vehicles

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Metonymy designations per suffix

y-axis: number of suffixes with X metonymy designations

x-axis: number of metonymy designations

Legend:
- # of R suffixes
- # of C suffixes
- # of N suffixes

average # metonymy designations per suffix

Russian 2.6, Czech 2.7, Norwegian 3

suffixes with 1 metonymy target: 68%, 62.50%, 59%
suffixes with >1 metonymy targets: 32%, 37.50%, 41%
suffixes with targets > vehicles: 11%, 12.50%, 17%

word-class designations per suffix

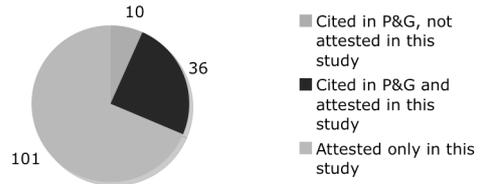Russian 1.55, Czech 1.56, Norwegian 1.61

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Suffixes and specificity

- **Not** specific for metonymy
- **Target** specific for word class

- **What does a suffix mean?**
- "Given this vehicle X, perform a metonymy such that the target is a member of word class Y."

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4. Observations

- Comparison lexicon vs. word-formation
  - Metonymy is more diverse and prevalent in word-formation
  - But some division of labor between the two domains
- Directionality
  - Some metonymies are uni-directional
  - Most bi-directional metonymies are skewed
- Cross-linguistic comparisons

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metonymy designations

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- Cited in P&G, not attested in this study
- Cited in P&G and attested in this study
- Attested only in this study

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Lexicon vs. word-formation

- Some frequent lexical metonymies are not attested in word-formation
  - agent-product, potential-actual, hypernym-hyponym
- Some frequent word-formation metonymies are not attested in lexical use
  - abstraction-characteristic, characteristic-abstraction, action-abstraction, action-characteristic

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|	bidirectional metonymies	unidirectional metonymies
	59% 62% 62%	41% 38% 38%
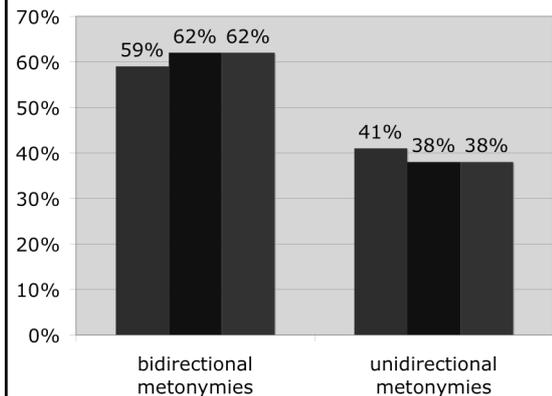
Directionality of metonymies in word-formation

- Robust uni-directional metonymies
  - product-agent, instrument-agent, state-location
- Balanced bi-directional metonymies
  - entity & characteristic, abstraction & characteristic, action & product
- Skewed bi-directional metonymies
  - location-agent, patient-agent, action-agent, action-characteristic, action-instrument, action-abstraction, action-event, part-whole, contained-container, possessor-possessed, entity-female

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Distribution of the 137 metonymy designations by language

Legend:
- R, C, N
- R, C
- R, N
- C, N
- R only
- C only
- N only

Values: 5, 19, 52, 21, 2, 2, 37
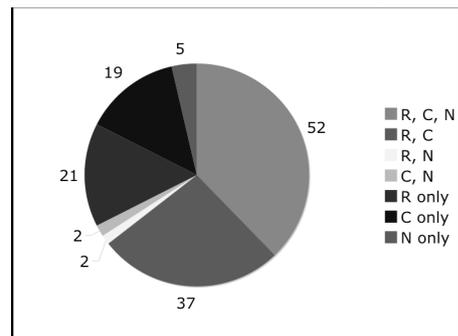
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Special investments: Russian and Czech

- location-characteristic
- possessor-possessed
- state-characteristic
- characteristic-location
- part-whole
- characteristic-material

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Special investments: Russian

- entity-female
- instrument-characteristic
- characteristic-characteristic

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Special investments: Czech

- contained-container
- product-location
- quantity-entity

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Special investments: Norwegian

- location-located
- product-agent

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5. Conclusions

- The main purpose of word-formation is to signal metonymy
- Metonymy in word-formation is more diverse than in lexical use
- Different languages make different investments in word-formation to signal metonymy
- Compare lexical vs. grammatical systems of meaning (Talmy 2005)

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