"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

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
Example 1 of (lexical) metonymy

- *We need a good head for this project*

  (good) head
  vehicle
  part

  (smart) person
  target
  whole

Example 2 of (lexical) metonymy

- *The milk tipped over*

  milk
  vehicle
  contained

  glass
  target
  container

Russian example of grammatical metonymy

- брюхан ‘pot-bellied person’

  брюхо
  vehicle
  part

  брюхан
  target
  whole

Czech example of grammatical metonymy

- květinač ‘flower-pot’

  květina
  vehicle
  contained

  květinač
  target
  container
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

2. Relevant Previous Scholarship

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

Works on metonymy

- Focus on lexical metonymy and on describing difference between metonymy and metaphor

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’, svetlica ‘light room’, temnica ‘dungeon’ (literally ‘dark room’).”
- Scholarship has neglected metonymy
"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.

Discuss role of metonymy and metaphor in English -er

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

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”)

Mainly lists of suffixes and/or relationships
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' - медвежата 'bearmeat', горох 'peas' - горошина 'pea', зверь 'animal' - зверье 'animals'

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

A Type is a unique combination of
• Metonymy designation: vehicle & target
  – брюхан is part-whole
  – květinač is contained-container
• Word class designation: vehicle & target
  – both брюхан and květinač are noun-noun
• Suffix
  (See sample types on handout)

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
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)

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

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

# types

<table>
<thead>
<tr>
<th>Language</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian</td>
<td>769</td>
</tr>
<tr>
<td>Czech</td>
<td>576</td>
</tr>
<tr>
<td>Norwegian</td>
<td>180</td>
</tr>
</tbody>
</table>
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

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)
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

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
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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### Suffixes and Specificity

<table>
<thead>
<tr>
<th>Suffixes with 1 metonymy target</th>
<th>Suffixes with &gt;1 metonymy targets</th>
<th>Suffixes with targets &gt; vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>68%</td>
<td>32%</td>
<td>11%</td>
</tr>
<tr>
<td>100%</td>
<td>27.50%</td>
<td>23%</td>
</tr>
<tr>
<td>69%</td>
<td>41%</td>
<td>17%</td>
</tr>
<tr>
<td>2.50%</td>
<td>9%</td>
<td>7%</td>
</tr>
</tbody>
</table>

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### Average # Metonymy Designations per Suffix

<table>
<thead>
<tr>
<th>Language</th>
<th>2.6</th>
<th>2.7</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Czech</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norwegian</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

Lexicon vs. word-formation

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

Distribution of the 137 metonymy designations by language

Special investments: Russian and Czech
- location-characteristic
- possessor-possessed
- state-characteristic
- characteristic-location
- part-whole
- characteristic-material

Special investments: Russian
- entity-female
- instrument-characteristic
- characteristic-characteristic
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)