How Typological Exceptions Develop: 
Talmy’s Distinction between Topological and Euclidean Semantics Revisited

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(Cognitive Linguistics: Empirical Approaches to Russian)
1. Topological vs. Euclidean semantics

- Topological ≈ magnitude neutral
- Euclidean ≈ magnitude sensitive
- English *across* (Talmy 2000:224)
  - *The bus drove across the country.*
  - *The ant crawled across my palm.*
  - Topological: not sensitive to magnitude

The meaning of grammatical elements “generally has a topological rather than a Euclidean character” (Talmy 2000:25)

NB! Talmy describes a tendency, which does not exclude exceptions.
2. Modern Russian: a peculiar rule

- Kogda èto slučilos’? ‘When did it happen?’
  - V ètom godu\textsubscript{LOC} ‘in this year\textsubscript{LOC}’
  - V ètu minutu\textsubscript{ACC} ‘in this minute\textsubscript{ACC}’
  - V naše vremja\textsubscript{ACC} ‘in our time\textsubscript{ACC}’

- Rules:
  - Bounded time spans longer than a week \rightarrow v + LOC
  - Elsewhere \rightarrow v + ACC

- Questions:
  - How did such a peculiar rule develop historically?
  - Why time, but not space?

- Answers:
  - “Unusual occurrence of quite usual processes” (Harris 2008: 76)
  - Location/movement less relevant in time than in space.
3. Old Russian constructions

- Data from Hypatian Chronicle
- New information (year not mentioned earlier)
  - \( V + \text{acc} : v \text{lěto}_{\text{ACC}} 6492 \)
- Given information (year mentioned earlier)
  - Major constructions:
    - \( V + \text{acc} : V \text{se že lěto}_{\text{ACC}} \)
    - Bare loc: \( \text{Tom že lětě}_{\text{LOC}} \)
    - Bare gen: \( \text{Togo že lěta}_{\text{GEN}} \)
  - Marginal constructions:
    - \( V + \text{loc} : V \text{tom že lětě}_{\text{LOC}} \)
    - Bare acc: \( \text{Se že lěto}_{\text{ACC}} \)
- Month: Only bare genitive attested

\( V + \text{locative} : \)
- Central in modern Russian, marginal in Old Russian.
4. Middle Russian: Syntax and semantics

• Syntax: synthetic → analytic
  ▪ PP ousts NP in adverbials
  ▪ Bare genitive and bare locative lose ground

• Semantics: conceptualization of time
  ▪ Emergence of location in metaphorical temporal “container”
    • V + Loc = stative location
  ▪ Emergence of atelic perfective verbs
    • Telic perfectives = natural culmination
      – Pročitat’ knigu ‘read the whole book’
    • Atelic perfectives = NO culmination
      – Počitat’ ‘read for a while’

Atelic perfectives (e.g. po-) and V + Loc are similar:
• Conceptualization: Event located in metaphorical container
• Emerge at the same time: Middle Russian
5. Middle Russian: Lexicon

- Sekunda ‘second’
- Minuta ‘minute’
- Utro ‘morning’
- Den’ ‘day’
- Nedelja ‘week’ – Na ‘on’ + loc
- Mesjac ‘month’
- God ‘year’
- Stoletie ‘century’

Why did v + loc prefer long time spans?
- They are better “containers”

Why did v + loc’s expansion stop at nedelja ‘week’?
- Holidays take na ‘on’
- Old Russian: nedelja = Sunday
- Middle Russian:
  - Nedelja: Sunday → week
  - Metonymy: part → whole
  - Keeps na + loc

Result of metonymic shift:
Nedelja ‘week’ becomes a natural “buffer zone” that stops v + loc’s expansion.
6. The Middle Russian “Conspiracy”

A. Syntax:
   - Synthetic → analytic (NP → PP)

B. Semantics:
   - Emergence of location in metaphorical temporal container
     - V + loc
     - Atelic perfectives

C. Lexicon:
   - Metonymy – nedelja: Sunday → week

• Three factors “conspire” to create the Euclidean v + loc rule.
• “Unusual occurrence of quite usual processes” (Harris 2008: 76) creates typologically atypical rules.
7. Why time, not space?

- **Space:**
  - Location inside container → \( v + \text{LOC} \)
    - \( V \text{karmane} \) ‘in the pocket’
  - Movement into container → \( v + \text{ACC} \)
    - \( V \text{karman} \) ‘into the pocket’

<table>
<thead>
<tr>
<th>Space</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>( v + \text{LOC} )</td>
<td>Location</td>
</tr>
<tr>
<td>( v + \text{ACC} )</td>
<td>Movement</td>
</tr>
</tbody>
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- **Time:**
  - Metaphor: not all structure transfers from space to time
  - Location/movement less relevant than in space
  - Loc/acc freed up to capture long/short distinction

**Space-time asymmetry:** Time ≠ mirror image of space
8. Wrapping up

1. Closed class items tend to have topological (magnitude neutral) semantics

2. Russian temporal adverbials offer an exception:
   - **V + Loc** for time spans longer than a week

3. Developed diachronically through conspiracy of independent factors in Middle Russian:
   - Syntax: Synthetic → analytic
   - Semantics: Location in metaphorical temporal container
   - Lexicon: *Nedelja* from ‘Sunday’ to ‘week’

4. Time:
   - Movement is less relevant in time than in space
   - Acc/Loc freed up to mark short/long time spans