Grammatical case informs discourse and ideology: Corpus-assisted keymorphic analysis of *Sputnik Czech Republic*
Outline

Grounded in the cognitive linguistic notions
• Figure-ground (Talmy 2000) and profiling (Langacker 1987).
• Case and meaning in Czech (Janda 1993, Janda and Clancy 2006) (morphemes as meaning-bearing units)

An attempt to go beyond previous findings:
• Grammar – fore-/backgrounding discourse functions (Hopper and Thompson 1980)
• Grammatical case and discourse participant roles/images (Fidler and Cvrček 2017, Cvrček and Fidler, forthcoming)

To show relationships between case and emerging ideology (discourse structure)
Keymorph analysis (KMA) (Fidler and Cvrček 2017)

KMA

◆ identifies prominent morphosyntactic features (keymorphs) (of a lemma)
◆ refines existing corpus linguistic method of Keyword analysis (KWA).
◆ provides qualitatively more detailed information about discourse than KWA.

Compare:
Keyword analysis extracts keywords (KW, word forms)

KW < contrast between word frequencies in the target corpus vs. (usually) a larger corpus (the reference corpus)
Keywords point to “what the text is about” and register or genre (Scott 2010: 43)
Data
Reference Corpus SYN2015 (≈ ground)

<table>
<thead>
<tr>
<th>Description</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A balanced representative corpus of written Czech texts published mainly in 2010-2014</td>
<td>121 mil tokens</td>
</tr>
<tr>
<td></td>
<td>100 mil words (excl. punctuation)</td>
</tr>
</tbody>
</table>
# Data - Czech

## Target Corpus: Sputnik (SPU) (≈ figure)

<table>
<thead>
<tr>
<th>Description</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A compilation of texts containing seed words published between March and June, 2015 in <em>Sputnik Česká Republika</em></td>
<td>395 thousand tokens 337 thousand words (excl. punctuation)</td>
</tr>
</tbody>
</table>

Seed words (Focus in the corpus: the Ukraine crisis and its relation to the Czech Republic and rest of the world)
All texts containing words česk-, čr, prah-, hrad-, zeman-
ukrajin-, kyjev-, porošenk-
rusk-, moskv-, putin-
bělorusk-, minsk-, lukašenk-
Sputnik as it presents itself

Sputnik ukazuje multipolární svět, kde každá země má svoje národní zájmy, kulturu, dějiny, tradice.

‘Sputnik shows a multipolar world, where every country has its national interests, culture, history, tradition’

Sputnik mluví o tom, o čem jiní mlčí.”

‘Sputnik tells the untold’

Agentura vyplňuje unikátní mezeru dodavatele alternativního zpravodajského obsahu a rozhlasu v jedné osobě. Sputnik se kompletně orientuje na zahraniční posluchače.

‘The agency fills the unique gap of the supplier of alternative news content and radio in one entity. Sputnik is fully oriented to the international audience.’

https://cz.sputniknews.com/docs/about/index.html
Likely discourse participant roles indicated by grammatical cases
(cf. Janda and Clancy 2006)

- **Nominative** – agency (“mobile subject of a sentence”)
- **Genitive** – source (away from), goal (into), participants of “events, idioms and chains” (subject, object of action), X of whole
- **Dative** – receiver, experiencer, victim, potential competitor (Also, note the predominance of the adversative meaning in the grammatical subject of the “get + past passive participle in English in early childhood in comparison to beneficiary meanings (Taniguchi, this conference)
- **Accusative** – patient (“destination – direct object”)
- **Instrumental** – partnership

Lemmas examined:
Countries: *Rusko* ‘Russia’, *Ukrajina* ‘Ukraine’
Presidents: *Putin, Porošenko* ‘Poroshenko’
<table>
<thead>
<tr>
<th>Case</th>
<th>Putin (DIN, Difference Index (Fidler and Cvrček 2015))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Putin (Nominative)</td>
<td>12.2</td>
</tr>
<tr>
<td>Putina (Genitive)</td>
<td>-30.9</td>
</tr>
<tr>
<td>Putinovi (Dative)</td>
<td>-49.8</td>
</tr>
<tr>
<td>Putina (Accusative)</td>
<td>-26.4</td>
</tr>
<tr>
<td>Putinem (Instrumental)</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Shows prominence in
- Explicit agency
- Partner in actions
Examples

1) Peskov: $\text{Putin}^{\text{nom}}$ vysvětlil Obamovi, že prohlášení o vojsku RF na Ukrajině jsou mylná

‘Peskov: $\text{Putin}^{\text{nom}}$ explained to Obama that the statements about the troops of the Russian Federation are erroneous.’

2) Kerry označil jednání s $\text{Putin}^{\text{instr}}$ a Lavroviem za upřímná

Kerry described the negotiations with $\text{Putin}^{\text{instr}}$ and Lavrov$^{\text{instr}}$ as honest.
<table>
<thead>
<tr>
<th>Case</th>
<th>Porošenko (DIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porošenko (Nom)</td>
<td>1.8</td>
</tr>
<tr>
<td>Porošenka (Gen)</td>
<td>0.2</td>
</tr>
<tr>
<td>Porošenkovi (Dat)</td>
<td>29.4</td>
</tr>
<tr>
<td>Porošenka (Acc)</td>
<td>-10.7</td>
</tr>
<tr>
<td>Porošenkem (Instr)</td>
<td>-25.6</td>
</tr>
</tbody>
</table>

Shows prominence in dative:
- Receiver, experiencer, victim, competitor
Examples

1) Jak se informuje na webu organizace, hlavní výtky adresované Porošenkovi dat se týkají vyšetřování masových vražd během euromajdanu v Kyjev.

‘As the organization informs on the web, the main criticisms addressed to Porošenko dat concerns the investigation of mass murders during the euromaidan in Kiev.’

2) Nedá se s naprostou jistotou říct , že Porošenkovi dat hrozí fašistický převrat, ale situace s radikály, [...], musí vyvolávat ostražitost nejen u ukrajinské moci, ale i v USA a Evropské unii, zdůrazňuje Stephen Cohen.

‘It’s not possible to state with absolute certainty that a fascist revolution threatens Porošenko dat, but the situation with the radicals [...] must generate wariness not only within the Ukrainian power, but also in the US and EU, emphasizes Stephen Cohen.’
### Russia and Ukraine

<table>
<thead>
<tr>
<th>Case</th>
<th>DIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rusko (nom)</td>
<td>11.0</td>
</tr>
<tr>
<td>Ruska (gen)</td>
<td>1.0</td>
</tr>
<tr>
<td>Rusku (dat)</td>
<td>35.8</td>
</tr>
<tr>
<td>Rusko (acc)</td>
<td>15.5</td>
</tr>
<tr>
<td>Rusku (loc)</td>
<td>-61.5</td>
</tr>
<tr>
<td>Ruskem (instr)</td>
<td>31.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case</th>
<th>DIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukrajina (nom)</td>
<td>9.7</td>
</tr>
<tr>
<td>Ukrajiny (gen)</td>
<td>9.8</td>
</tr>
<tr>
<td>Ukrajině (dat)</td>
<td>2.1</td>
</tr>
<tr>
<td>Ukrajinu (acc)</td>
<td>-15.3</td>
</tr>
<tr>
<td>Ukrajině (loc)</td>
<td>-3.3</td>
</tr>
<tr>
<td>Ukrajinou (instr)</td>
<td>-33.8</td>
</tr>
</tbody>
</table>

**Rusko/Russia**
- experiencer, receiver, victim, potential competitor
- partner (in action)

**Ukrajina/Ukraine**
- entity being separated from, (entry) into, (part) of Ukraine, participant (of nominalized action) (patient, agent not explicit)
- agent of action
Examples

1a. Kanadská vláda rozšířila seznam sankcí proti Rusku\textsuperscript{dat}, [...] ‘The Canadian government expanded the list of sanctions against Russia\textsuperscript{dat} [...]’

1b. A musím znovu opakovat, že si přejeme dobré vztahy s Ruskem\textsuperscript{instr}, [...], řekla Merkelová. ‘And I must repeat once more that we wish good relationships with Russia\textsuperscript{instr}, [...]’, said Merkel.

2a. Ukrajina\textsuperscript{nom} minimálně na měsíc přerušila dodávky elektřiny do tří zemí Evropské unie, ‘Ukraine\textsuperscript{nom} interrupted supply of electricity minimally for a month to three countries of the European Union,’

2b. Kořen sporu je znám: povstalci chtějí federalizaci Ukrajiny\textsuperscript{gen}, Kyjev nabízí jen „decentralizaci“. ‘The root of the debate is known: the insurgents want federalization of Ukraine\textsuperscript{gen}, Kiev offers only “decentralization”.

2c. Jakékolikof zasahování do územní celistvosti Ukrajiny\textsuperscript{gen} je nepřípustné. ‘Whatever intervention of [into] the territorial integrity of Ukraine\textsuperscript{gen} is not acceptable.’
## Combined effects and emerging rhetoric

<table>
<thead>
<tr>
<th>Russia</th>
<th>Putin</th>
<th>Ukraine</th>
<th>Porošenko</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Experiencer-victim-competitor</td>
<td>• Agent</td>
<td>• Source, goal, of whole, participant of action</td>
<td>• Experiencer-victim-competitor</td>
</tr>
<tr>
<td>• Partner in actions</td>
<td>• Partner in actions</td>
<td>• Agent</td>
<td></td>
</tr>
</tbody>
</table>

R: The state needs help. A strong leader (and negotiator) is justified

U: The state has issues (divided, doing its own thing) The **leader** is not sufficiently agentive > inadequate

>> implicit contrast between the two leaders
Rhetoric round vis-à-vis
Self-representation of Sputnik

Self-representation of Sputnik
1. ‘Sputnik shows a multipolar world, where every country has its national interests, culture, history, tradition’
2. ‘Sputnik tells the untold’
3. ‘The agency fills the unique gap of the supplier of alternative news content and radio in one entity. Sputnik is fully oriented to the international audience.’

KMA shows how to understand 1-3:
The Kremlin leadership is justified
Sputnik favors the Kremlin leadership over the Ukrainian leadership

Cf. Qualitative commentaries and analyses (e.g. Groll 2014) debating the authenticity of sources and information.
Conclusions

Grammatical case as a meaning-bearing unit

• informs of the image of the participants in discourse (consistent with previous studies)

• points to relationships between the discourse participants (states and their leaders, in this case)

• shows how an implicit rhetorical structure emerges

Laika (*Lajka*, by Aurel Klimt)
The first dog in space on Sputnik 2
References


Talmy, 2000. Toward a cognitive semantics. Cambridge, M

Acknowledgments

• Humanities Research Fund, Brown University
• Programme Progres Q08 Czech National Corpus implemented at the Faculty of Arts, Charles University

THANK YOU!

More on this project (and others) and methodology
https://www.brown.edu/research/projects/needle-in-haystack/404