

# Selected Topics in Slavic linguistics



---

Slavic languages are sufficiently similar and sufficiently different to provide an attractive research laboratory. (Corbett 1998)

# Grammar (pessimistic?)

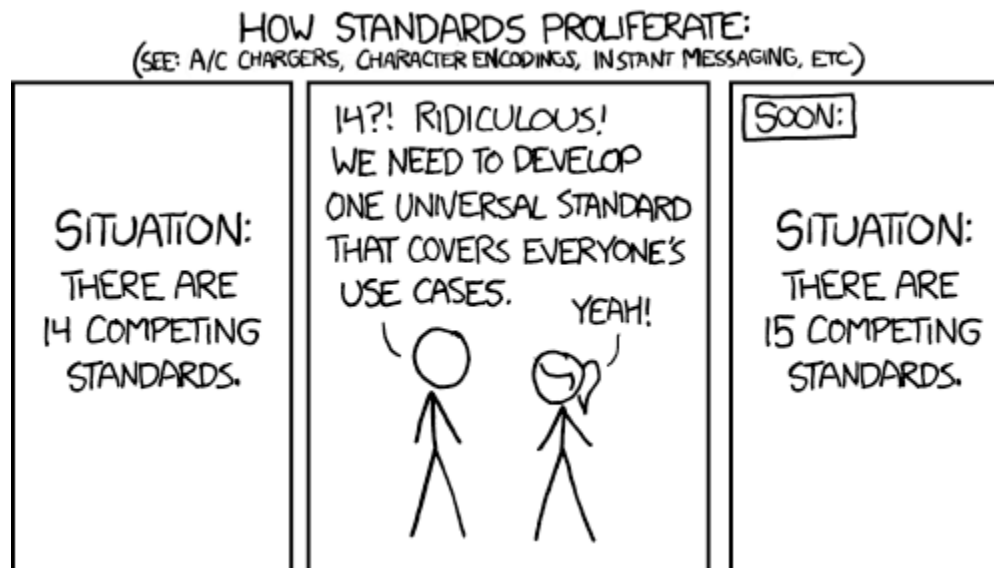


- “Grammar sucks: it is complex and it makes no sense.”
  - One day you are told that each Polish noun has a grammatical gender, and the next day – that it actually has a different gender in the singular and in the plural.
  - One day you are told that transitive verbs always combine with accusative objects, and the next day you see the direct object in the genitive, just because some negation is floating around.
  - One day you are told that complements are obligatory participants and adjuncts are optional circumstances expressing manner, location, etc., and the next day you notice verbs like BEHAVE or RESIDE, with obligatory circumstantials.
- So you can't be blamed for deciding that mathematics and programming make much more sense.

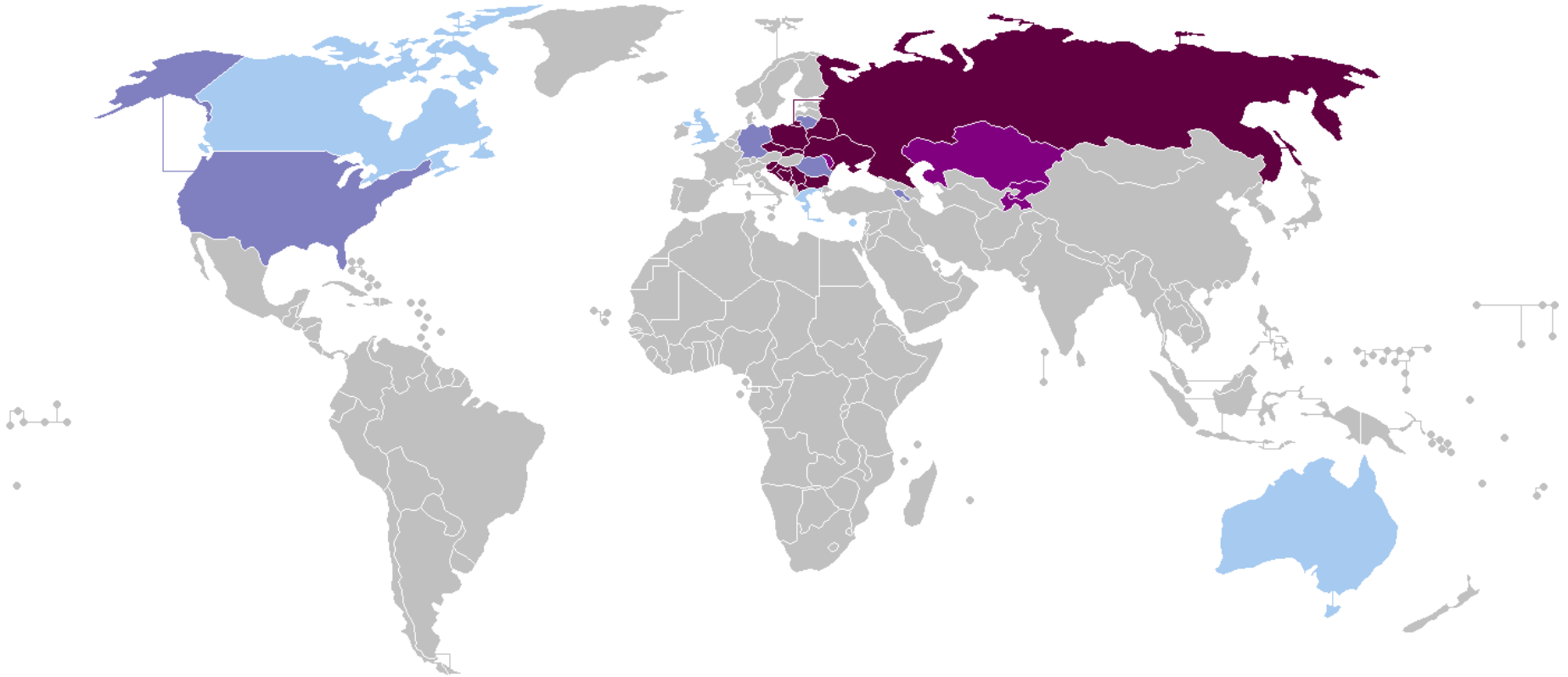


# Grammar (optimistic!)

- “Grammar not only starts making sense, but becomes great fun – like a bottomless box of toys and puzzles.”
- One game was called “Principles and Parameters”: how to set parameters (and how to tweak supposedly universal principles) to get Polish?
- Another game was: how to make a computer produce all and only grammatical sentences of Polish?



# Slavic languages worldwide



[https://en.wikipedia.org/wiki/File:Slavic\\_languages\\_in\\_the\\_World.PNG](https://en.wikipedia.org/wiki/File:Slavic_languages_in_the_World.PNG)

- **Official and nationwide:** A Slavic language is official in this country and spoken nationwide
- **Co-official:** A Slavic language is recognized as official by federal or regional authorities of this country, but may not be widespread
- **Recognized minority:** At least one Slavic language is an officially recognized minority by federal or regional authorities of this country
- **Non-recognized minority:** At least 1% of the country's population are Slavic language speakers, but no Slavic language is recognized as a minority by federal or regional authorities



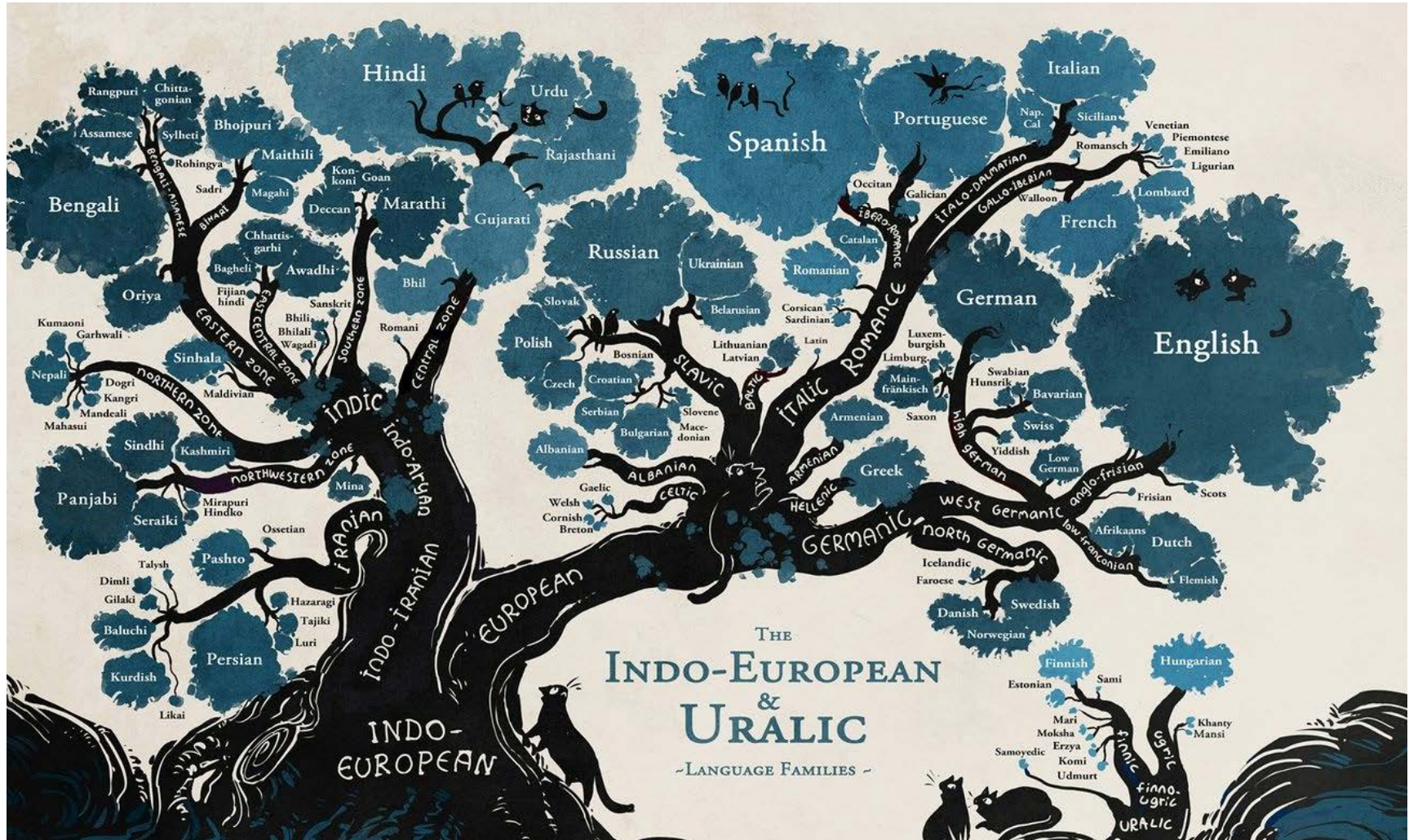
- Classification of languages

- **genetic:** based on relatedness
- **areal:** based on geographical closeness
- **typological:** based on linguistic properties

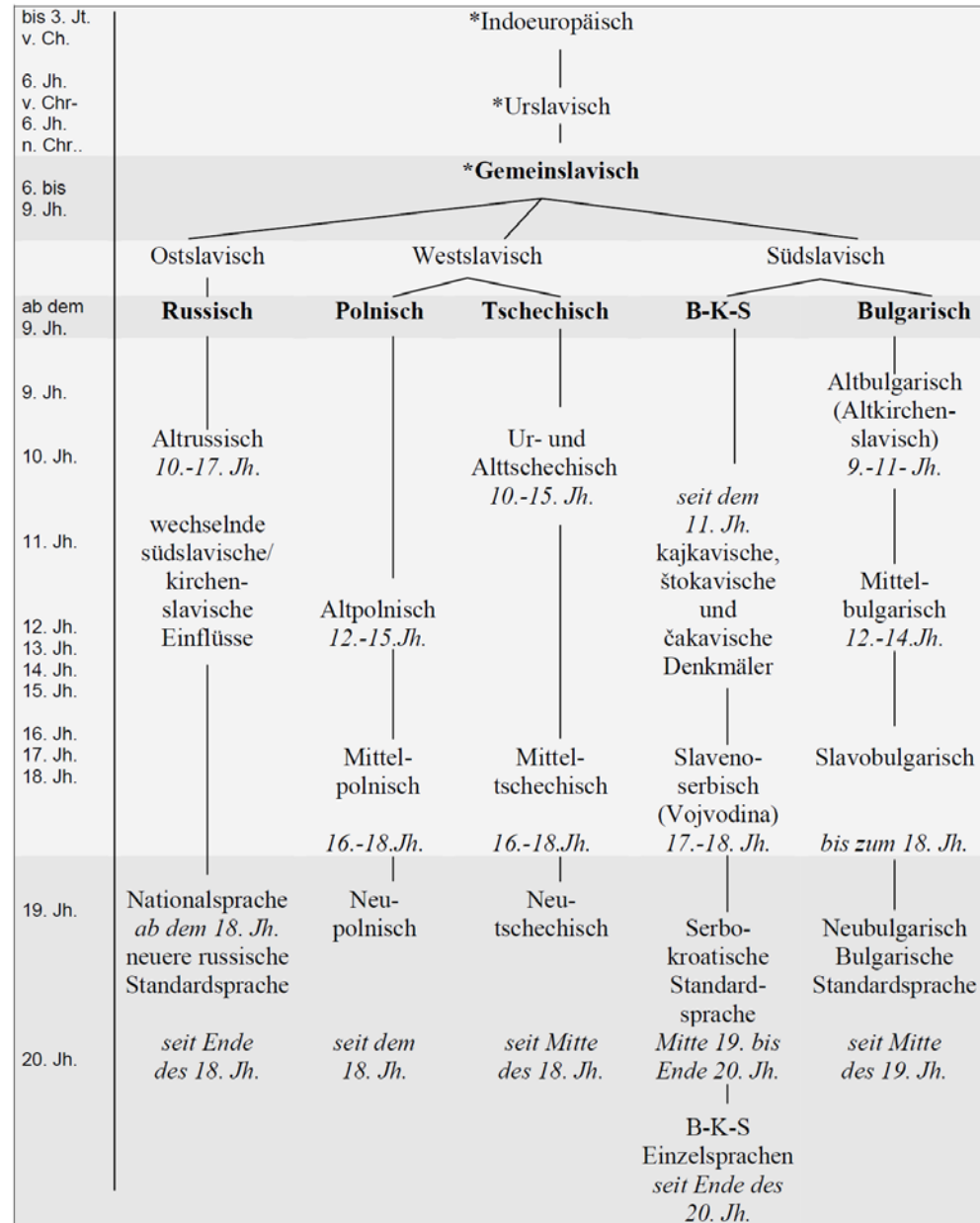
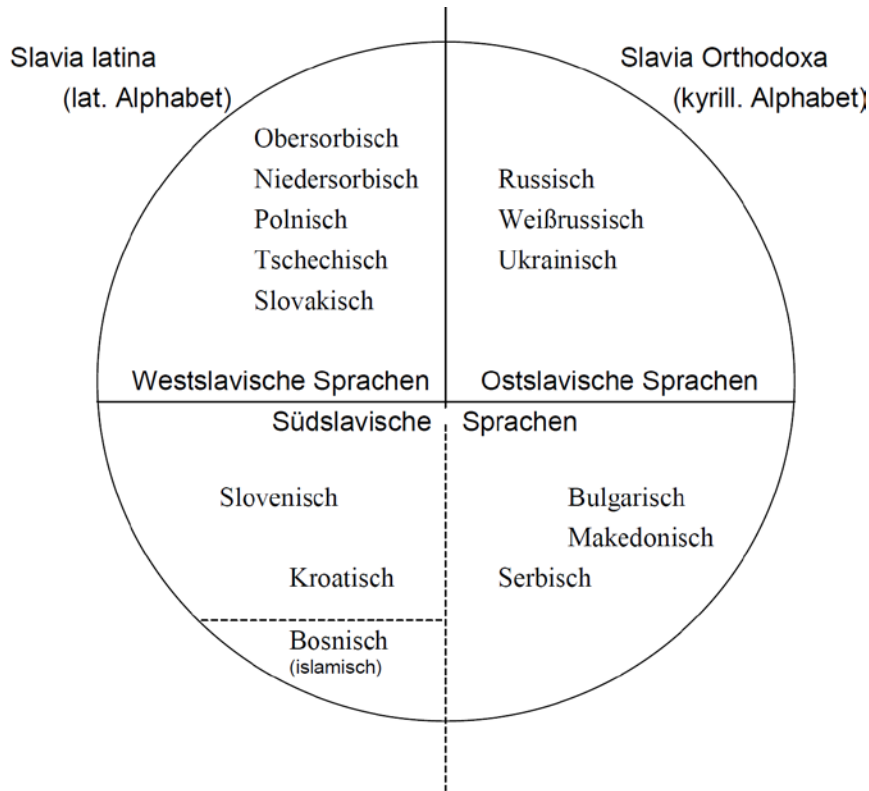
# Slavic linguistics



## Classification of languages – genetic



# Grouping and chronology





- Classification of languages – **areal**
  - Spatially adjacent language varieties have a largely consistent linguistic inventories.
    - Balkansprachbund
    - Standard Average European





- Classification of languages – **typological**

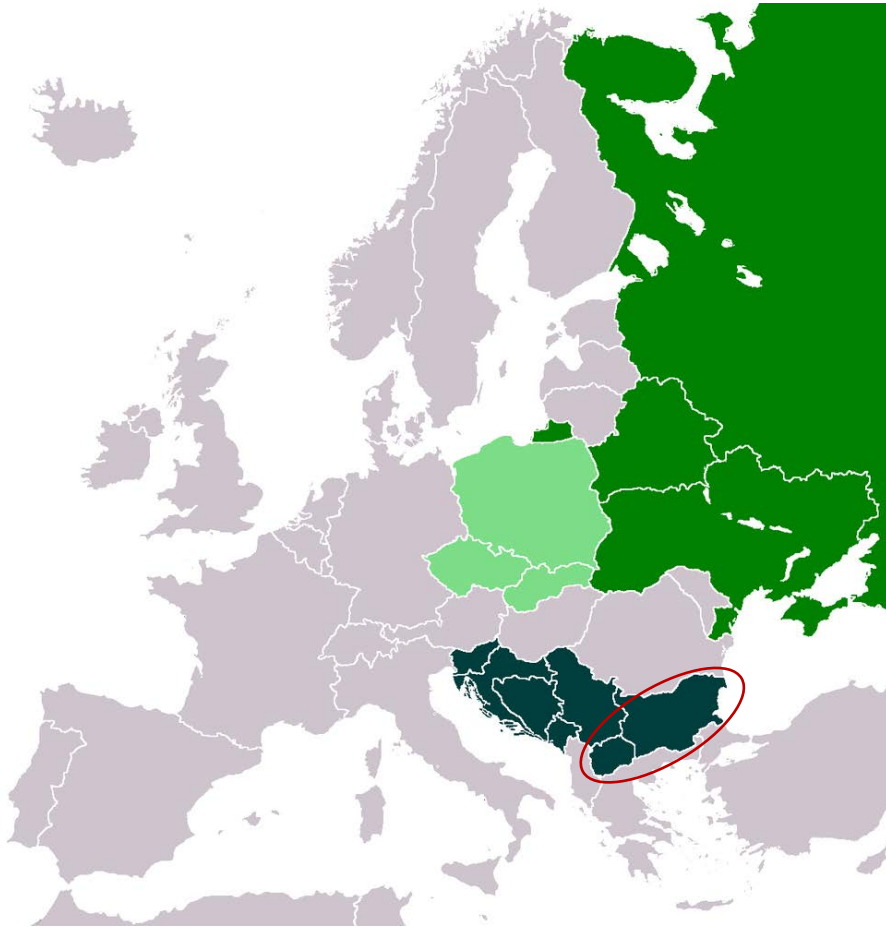
1. **grammatical properties and phenomena**, the totality of which delimits Slavic from other language families, and by which the differences between individual Slavic languages can be explained

*Result: a multidimensional relatedness and similarity scheme*

2. **foreign language influences**, which are expressed as "un-Slavic" traits and constructions

The best examples provide

- German-influenced Sorbian
- Bulgarian/ Macedonian as Balkan languages  
→ special status within the Slavic language family



## Bulgarian / Macedonian

- no CASE inflexion with nominals
- analytical-prepositional form of valence realisation
- emergence of definite article
- preservation and analytic extension of verb inflexion
- no infinitive → functional substitute: finite da-construction
- verb complex formation + clitics
- typologically from "dependent-marking" to "head-marking"

# Properties & Phenomena



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order

# Properties & Phenomena: N-domain



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order

# Case



	NOM	GEN	PART	DAT	AKK	INS	LOK	PRÄP	VOK
Russisch	✓	✓	(✓)	✓	✓	✓	(✓)	✓	(✓)
Ukrainisch	✓	✓		✓	✓	✓	✓		✓
Weißrussisch	✓	✓		✓	✓	✓	✓		
Obersorbisch	✓	✓		✓	✓	✓	✓		✓
Niedersorbisch	✓	✓		✓	✓	✓	✓		
Polnisch	✓	✓		✓	✓	✓	✓		✓
Tschechisch	✓	✓		✓	✓	✓	✓		✓
Slowakisch	✓	✓		✓	✓	✓	✓		
Slowenisch	✓	✓		✓	✓	✓	✓		(✓)
BKS	✓	✓		✓	✓	✓	✓		
Bulgarisch									(✓)

# Properties & Phenomena: N-domain



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Sovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definitness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order

# Genitive of negation



● Polnisch: Jem mięso\_Akk. Nie jem mięsa\_Gen

● Slowenisch: Jem meso\_Akk. Ne jem mesa\_Gen.

---

● Tschechisch: Jím maso\_Akk. Nejíím maso\_Akk

● Serbo-Kroat.: Jedem meso\_Akk. Ne jedem meso\_Akk

---

● Russisch: Ем мясо\_Akk. Не ем мясо\_Akk  
Не ем мяса\_Gen

---

● Bulgarisch: Ям месо Не ям месо

*I eat meat* vs. *I don't eat meat*

# Properties & Phenomena: N-domain



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order





# Definite article (Bulgarian)

- Дете<sup>ТО</sup> видя котка<sup>ТА</sup>.  
*Kind\_ART sah Katze\_ART*  
Das Kind sah die Katze. (ambig)
- Млако<sup>ТО</sup> дете видя черна<sup>ТА</sup> котка.  
*kleines\_ART Kind sah schwarze\_ART Katze*  
Das kleine Kind sah die schwarze Katze. (ambig)
- Крадец<sup>ЪТ</sup> забеляза съседа<sup>А</sup>.  
*Dieb\_ART-voll bemerkte Nachbar\_ART-kurz*  
Der Dieb bemerkte den Nachbarn.
- Крадец<sup>А</sup> забеляза съсед<sup>ЪТ</sup>.  
*Dieb\_ART-kurz bemerkte Nachbar\_ART-voll*  
Den Dieb bemerkte der Nachbarn.

# Properties & Phenomena: V-domain



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Sovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definitness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order



# No infinitiv; verb complex (Bulgarian)

- Пътувам** за Лондон.  
*Verb(fin) for London*  
I travel to London.

**Не пътувам** за Лондон.  
*Prt(neg) Verb(fin) for London*  
I do not travel to London.
- Ще пътувам** за Лондон.  
*Prt(fut) Verb(fin) for London*  
I will travel to London.

**Няма да пътувам** за Лондон.  
*Aux(neg) Prt Verb(fin) for London*  
I will not travel to London.
- Щял съм бил да съм бил поканен** на парада.  
*Aux(pcp) Aux(fin) Aux(pcp) Prt Aux(fin) Aux(pcp) Verb(pass.pcp) to parade*  
(Reportedly) I would have been invited to the parade.
- Нямало ли било да съм бил поканен** на парада?  
*Aux(neg) Prt(que) Aux(pcp) Prt Aux(fin) Aux(pcp) Verb(pass.pcp) to parade*  
(Reportedly) Wouldn't I have been invited to the parade?

# Properties & Phenomena: V-domain



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Sovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definitness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order



# Zero copula

wenn nicht-verbale Kategorien die Prädikatsrolle übernehmen

Dom  $\emptyset$  krasivyj

Das Haus **ist** schön **AP**

On  $\emptyset$  moj drug.

Er **ist** mein Freund **NP**

Kniga  $\emptyset$  na stole

Das Buch **ist** auf dem Tisch **PP**

Deneg  $\emptyset$  malo.

Geld **ist** knapp **AdvP**

- Hauptfunktion von Kopula: Signalisierung des Prädikats
- Kopula (ggf. in **Null-Form**) trägt satzbildende **V-Merkmale**

# Syntactic absence of the predicate



- Handlungsverben sind weglassbar, sofern eine zweigliedrige Struktur übrig bleibt:

- oft zitierte "Klassiker"

Tatjana      ∅   v   les,                      medved`   ∅   za       neju  
Tatjana.NOM   in Wald.ACC      Bär.NOM        hiter      sie.INSTR

- Weglassungen mit leicht wieder herstellbarer Bedeutung

Ja              ∅   v   univesritet  
ich.NOM        in Uni.ACC

- komplexere Beispiele: das Einsetzen eines Verbs unter Beibehalt der Struktur würde zwingend eine Veränderung der bestehenden Bedeutung hervorrufen

mne        by      ∅    mamu        sjuda  
ich.DAT   COND      Mutter.ACC   hierher

# Properties & Phenomena: Clitics



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order



# Inventory of predicative / inflectional clitics

- Bulgarian → Complete Set
  - ➔ reflexive: **cu** & **ce**
  - ➔ pronominalised objects (*"agreement marker" in object doubling*)
  - ➔ person-number auxiliary (*full paradigm, subject agreement*)
- Czech → Restricted Set
  - ➔ reflexive: **si** & **se** (*haplology, no multiple reflexive marking*)
  - ➔ pronominalised objects (*partly semi-clitic*)
  - ➔ person-number auxiliary (1&2, *subject agreement*)
- Polish → Reduced Restricted Set
  - ➔ reflexive: only **się** (*haplology*)
  - ➔ pronominalised objects (*"simple clitics", partly non-clitic*)
    - movable auxiliary inflexion (1&2, *Subjektkongruenz*)
- Russian → empty
  - reflexive inflexion: **-ся / -сь**





# Inflectional features realised by clitics

Infl. features	Bulgarian	Czech	Polish
<b>AUX NON-3</b>	съм, си, сме, сте	jsem, jsi, jsme, jste	-m, -ś -śmy, -ście
<b>AUX 3</b>	е, са	je, jsou (SEMI-CLITIC)	jest, są (NON-CLITIC)
<b>DAT SG NON-3</b>	ми, ти	mi, ti	mi, ci
<b>DAT SG 3 M / N</b>	му	mu	mu
<b>DAT SG 3 F</b>	и́	jí (SEMI-CLITIC)	jej (NON-CLITIC)
<b>ACC SG 1</b>	ме	mě (SEMI-CLITIC)	mnie (NON-CLITIC)
<b>ACC SG 2</b>	те	tě	cię
<b>ACC SG 3 M / N</b>	го	ho	go / je
<b>ACC SG 3 F</b>	я	ji (SEMI-CLITIC)	ją (NON-CLITIC)
<b>pronominal PL</b>	НИ, ВИ, ИМ НИ, ВИ, ГИ	nám, vám, jim nás, vás, je (SEMI-CLITIC)	nam, wam, im nas, was, ich (NON-CLITIC)
<b>reflexive PRT / DAT</b>	си	si	sobie (NON-CLITIC)
<b>reflexive PRT / ACC</b>	се	se	się

# Properties & Phenomena: Clustering clitics



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order



# Verb complex & verb clitics (Bulgarian)

Togava **si** štjala da **si** **mi** **gi** pokazala veče.  
 then AUX-2sg FUT-AUX-sg.f PRT AUX-2sg DAT-1sg ACC-3pl shown-sg.f already

'You would have already shown them to me by that time (reportedly).'

Az na Ivan pokazvala li sym mu gi **njakoga dokumentite?**  
 I-1sg to Ivan-3sg.m shown-sg.f Q AUX-1sg DAT-3sg.m ACC-3pl ever paper-3pl.def

'Have I ever shown the papers to John?'

- Host-category-bound: belong to the syntactic domain of a particular (morphosyntactic) category which also hosts them prosodically [Av'97]



# Wackernagel clitics (Czech)

- “second” position
  - What occupies the “first” position?

Minulý týden v neděli ráno doma v koupelně se Jan při holení nebezpečně zranil.  
last week on Sunday morning at-home in bathroom REFL Jan at shaving dangerously hurt

- prosodically autonomous: inherently related to a “second” position rather than to a prosodic host of a particular (morphosyntactic) category [Av’97]
- pure clitics vs. semi-clitics

# Cluster formation patterns



## ● Wackernagel clitic

- Czech: AUX < ETH.DAT < REFL(dat/acc) < DAT < ACC (GEN)

& co-occurrence restrictions:           \* two phonologically identical clitics  
  \* two REFL clitics

- Poslat kurýrem se mi mu ho dnes nepodařilo ...  
send-INF courier-INSTR REFL DAT-1sg DAT-3sg.m ACC-3sg.n today NEG-succeeded

- Jan se snažil si koupit nové auto.  
John REFL tried REFL buy-INF new car

- Serbo-Croatian: AUXnon3sg < DAT < ACC/GEN < REFL < AUX3sg

## ● Verbal clitics

- Bulgarian: AUXnon3sg < DAT < ACC < AUX3sg

# Properties & Phenomena:

## Clustering clitics (verbal vs. Wackernagel)



e.g.	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definitness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order

# Properties & Phenomena:

## Clitics (syntactic behaviour)



e.g.	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order

# Properties & Phenomena:

## Clitics (syntactic behaviour: climbing)



e.g.	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free	none	2P after	2P after	free	2P after
cl.cluster	<p>a. I Martin <i>by</i><sub>0</sub> <i>se</i><sub>1</sub> <i>určitě</i> <i>snažil</i><sub>1</sub> [<i>mu</i><sub>2</sub> <i>pomoci</i><sub>2</sub> [<i>ho</i><sub>3</sub> <i>najít</i><sub>3</sub>.]]            even Martin would refl<sub>A</sub> definitely tried him<sub>D</sub> help<sub>inf</sub> him<sub>A</sub> find<sub>inf</sub>            ‘Even Martin would definitely try to help him to find it.’</p>						
cl.replication	<p>b. I Martin <i>by</i><sub>0</sub> <i>se</i><sub>1</sub> <i>mu</i><sub>2</sub> <i>ho</i><sub>3</sub> <i>určitě</i> <i>snažil</i><sub>1</sub> <i>pomocť</i><sub>2</sub> <i>najít</i><sub>3</sub>.            even Martin would refl<sub>A</sub> him<sub>D</sub> him<sub>A</sub> definitely tried help<sub>inf</sub> find<sub>inf</sub>            ‘Even Martin would definitely try to help to help him to find it.’</p>						
cl.haplology							
cl.climbing							
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order



# Properties & Phenomena:

## Clitics (syntactic behaviour: haplology)



e.g.	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech	
morph.case	no	yes	yes	yes	yes	yes	yes	
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)	
def.article	yes	no	no	no	no	no	no	
infinitiv	no	yes	yes	yes	yes	yes	yes	
verb complex	yes	no	no	no	no	no	no	
zero copula	no	yes & no	yes	no	no	no	no	
pred. clitics		<p>Przywołuję te chwile usilnie, staram<sub>1</sub> się<sub>1+2</sub> przypomnieć<sub>2</sub>.                      recall those moments hard try refl<sub>A</sub> remember<sub>inf</sub>                      ‘I’m trying hard to recall those moments, trying to remember.’</p>						after const. i-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes	
cl.replication	yes	no	---	<p>Děvče se<sub>1+2</sub> (*se) stydělo<sub>1</sub> převléknout<sub>2</sub>.                      girl refl<sub>A</sub> was ashamed change<sub>inf</sub> dress                      ‘The girl was ashamed to change dress.’</p>				
cl.haplology	nein	yes	---					
cl.climbing	nein	yes	---					
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order	

# Properties & Phenomena:

## Determinedness and object replication



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order



# Object replication by clitics (Bulgarian)

- Дете<sup>то</sup> видя черна<sup>та</sup> котка.  
*Kind\_ART sah schwarze\_ART Katze*  
Das Kind sah die schwarze Katze. (ambig)
  
- Дете<sup>то</sup> го видя черна<sup>та</sup> котка.  
*Kind\_ART AKK.3SG.NEUT sah schwarze\_ART Katze*  
(Objekt: das Kind)
  
- Дете<sup>то</sup> я видя черна<sup>та</sup> котка.  
*Kind\_ART AKK.3SG.FEM sah schwarze\_ART Katze*  
(Objekt: die schwarze Katze.)

# Properties & Phenomena:

## head-marking vs. dependent-marking



e.g.	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order



# Word order flexibility

(1) Colorless green ideas sleep furiously.

Бесцветные зелёные идеи спят яростно

(2) \*Furiously sleep ideas green colorless.

Яростно спят идеи зелёные бесцветные

- Generally, at sentence level: syntactically free
  - dependent on information structure (IS)
  - well-formedness of sentences in respective contexts
  
- Specifically, at phrase level: less flexible, partially grammaticalised
  - Scrambling, discontinuity possible (guided by IS)

# Properties & Phenomena:

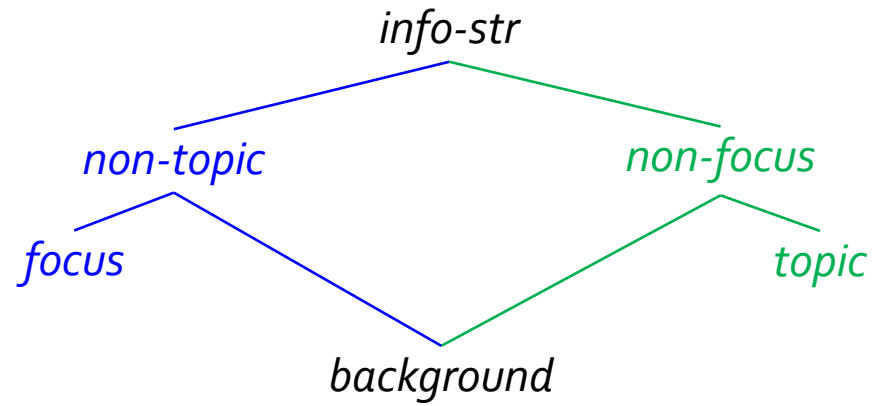
## Factors of Information Structure (IS) in Sentences



<i>e.g.</i>	Bulgarian	Polish	Russian	Serbo-Croat	Slovene	Sorbian	Czech
morph.case	no	yes	yes	yes	yes	yes	yes
gen. of neg.	---	yes	yes mostly local	no	yes	optional, more in Low-Sorb.	no (archaic)
def.article	yes	no	no	no	no	no	no
infinitiv	no	yes	yes	yes	yes	yes	yes
verb complex	yes	no	no	no	no	no	no
zero copula	no	yes & no	yes	no	no	no	no
pred. clitics	verbal	free (& semi-clitic)	none	2P after 1 <sup>st</sup> const. or 1 <sup>st</sup> word	2P after 1 <sup>st</sup> const.	free	2P after 1 <sup>st</sup> const. (& semi-clitic)
cl.cluster	yes	(nein)	---	yes	yes	(nein)	yes
cl.replication	yes	no	---	no	no	no	no
cl.haplology	nein	yes	---	?	?	?	yes
cl.climbing	nein	yes	---	?	?	?	yes
IS factors	word order plast.inton. definiteness cl.doubling	word order plast.inton. IS markers	word order plast.inton. IS markers	word order ?plast.inton.	word order ?plast.inton.	word order ?plast.inton.	word order

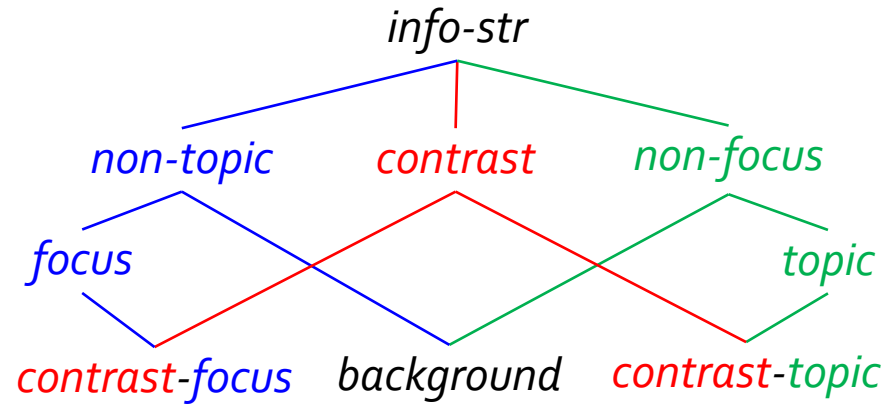


# Information structure of the sentence





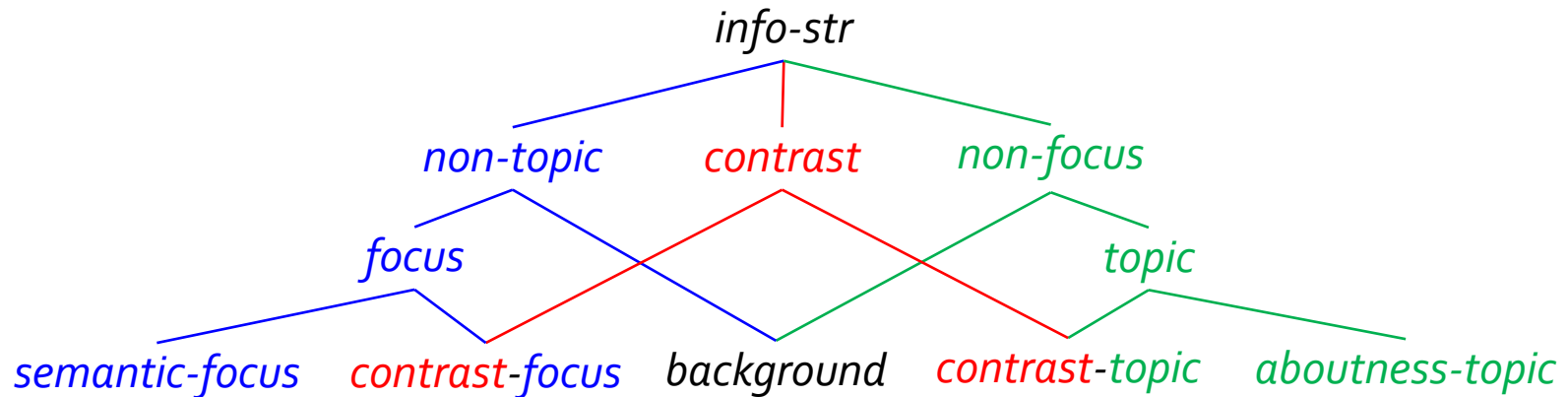
# Information structure of the sentence







# Information structure of the sentence



- **Focusing** as default information state
  - unmarked case
  - neutral (= most informative) sentences  $\Leftrightarrow$  canonical configuration  
both syntactically and prosodically
  - focus is associated with canonical structural realisations
- **Means of information structuring**
  - linearisation of syntactic units
  - intonation patterns
  - lexical means, IS marking particles, ...
  - determinedness and clitic doubling (cf. Bulgarian)

# Slavic linguistics ↔ Computational linguistics



Despite all observed self-developments, **typical Slavic properties** can be formulated on a different (meta-grammatical) level.



Considering the individual Slavic languages as **parameterized instances** of a modular core grammar