



The claim and arguments

The representation of information structure (IS) should be a part of (any type of) representation of meaning

1. IS is semantically relevant
2. important for the account of negation and presupposition
3. important for the understanding of discourse connectivity and for the establishment and interpretation of coreference relations

Semantic relevance

- (1) a. Dogs must be CARRIED.
b. DOGS must be carried. Carry DOGS. (Halliday 1967) → nonsensical
- (2) a. English is spoken in the SHETLANDS. → false
b. In the Shetlands, ENGLISH is spoken. (Sgall 1967)
- (3) a. Mary always takes John to the MOVIES.
b. Mary always takes JOHN to the movies. (Rooth 1985) – different situations

Semantics of negation

Focus holds ABOUT Topic

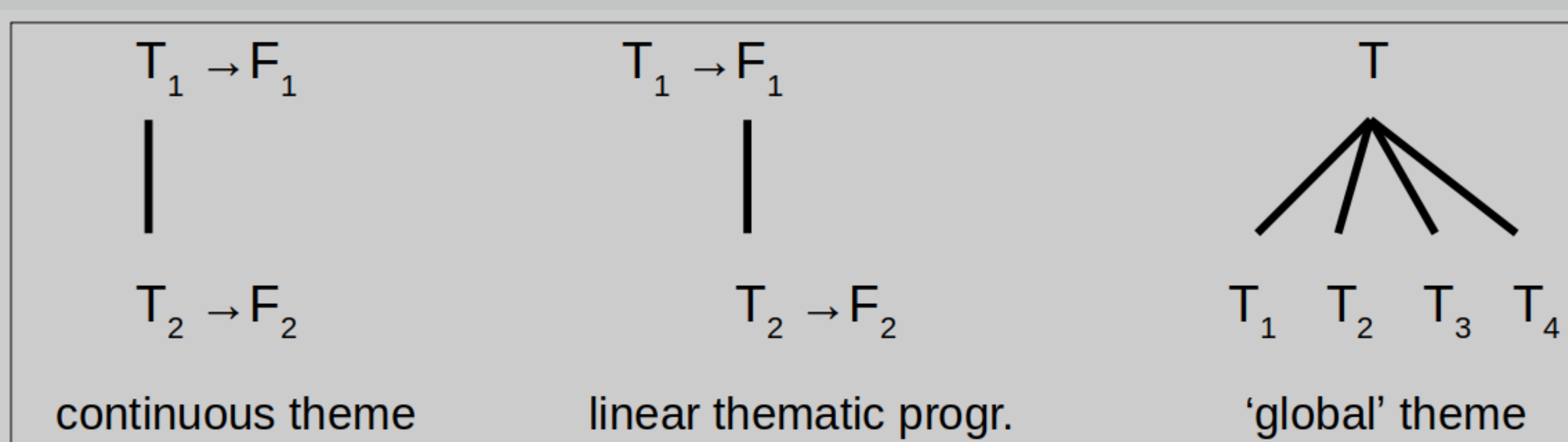
- (4) John didn't come to watch TV.
- ▶ prototypically: the Focus does not hold about the Topic it holds ABOUT John, that he didn't come
 - ▶ secondary interpretation: the Focus holds ABOUT a negative Topic
- (5) John didn't come, because he suddenly fell ill.
- ▶ ABOUT John's not-coming (Topic) the sentence says that is happened because he suddenly fell ill (Focus).

TFA and presupposition

Strawson's (1964) notion of referential availability

- (6) a. John caused our VICTORY. \Rightarrow we won
b. John didn't cause our VICTORY. \nRightarrow we won
c. Though he played well as usual, the rest of the team was very weak (and nothing could prevent our defeat). "victory" in the Focus
- (7) a. Our victory was caused by JOHN. \Rightarrow we won
b. Our victory was not caused by JOHN. \Rightarrow we won "victory" in the Topic

Discourse



Hajičová and Mírovský (2018a):
in Czech: prevailing = linear
in English: prevailing = continuous theme

Summary

1. Information structure (TFA) is semantically relevant
2. TFA: a basis for the interpretation of negation and presupposition
3. TFA: some basic features of discourse connectivity and coreference
4. Representation of the basic features of information structure

TFA theory in a nutshell

Topic-Focus Articulation (TFA)
(cf. e.g. Sgall 1967; 1979; Sgall, Hajičová and Panevová 1986)
based on the "aboutness" relation: Focus is ABOUT Topic

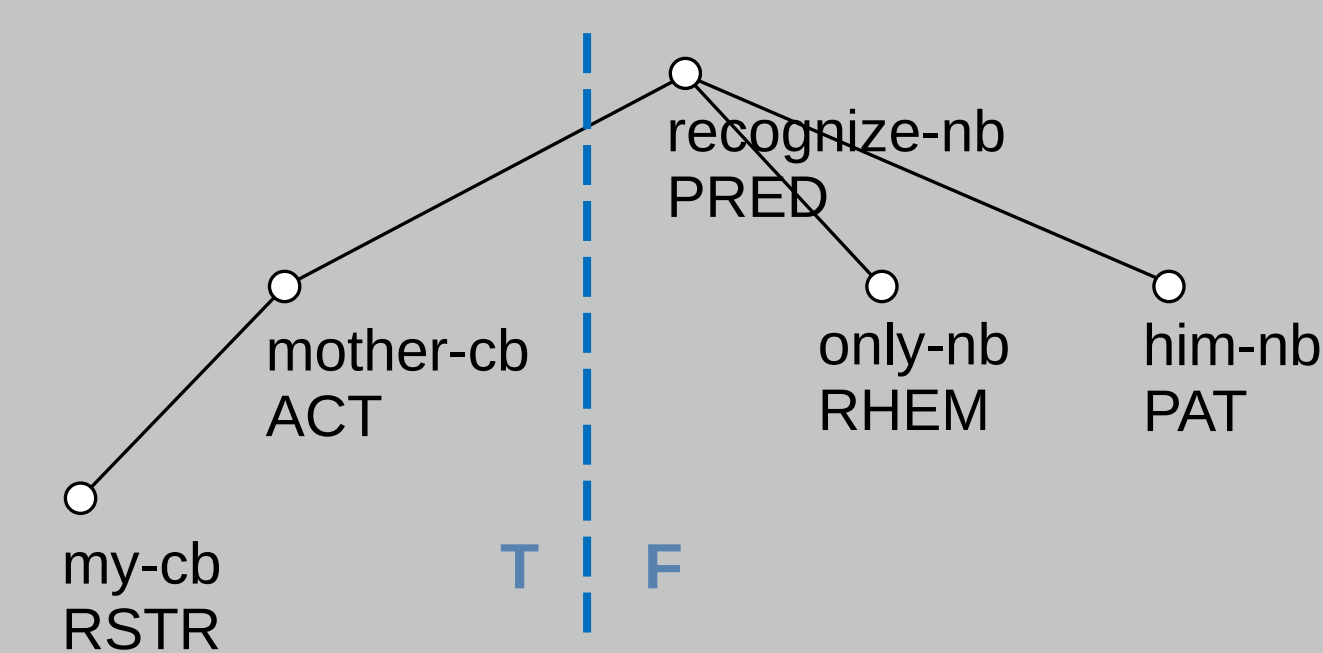
Focus (Topic)

- ▶ the primary notion of **contextual boundness**: an entity assumed to be easily accessible by the hearer(s), i.e. more or less predictable
- ▶ a hierarchy of **communicative dynamism**: communicative importance
- ▶ TFA: a **recursive** phenomenon – aside with the global Topic and the global Focus also local topics and local foci
- ▶ TFA represented on the **syntactico-semantic level** (= a linguistically structured level of meaning).
 \Rightarrow a possibility to recognize more distinctions in addition to the basic dichotomy (e.g. focus – background; a proper account of prosody)

TFA in an annotated corpus

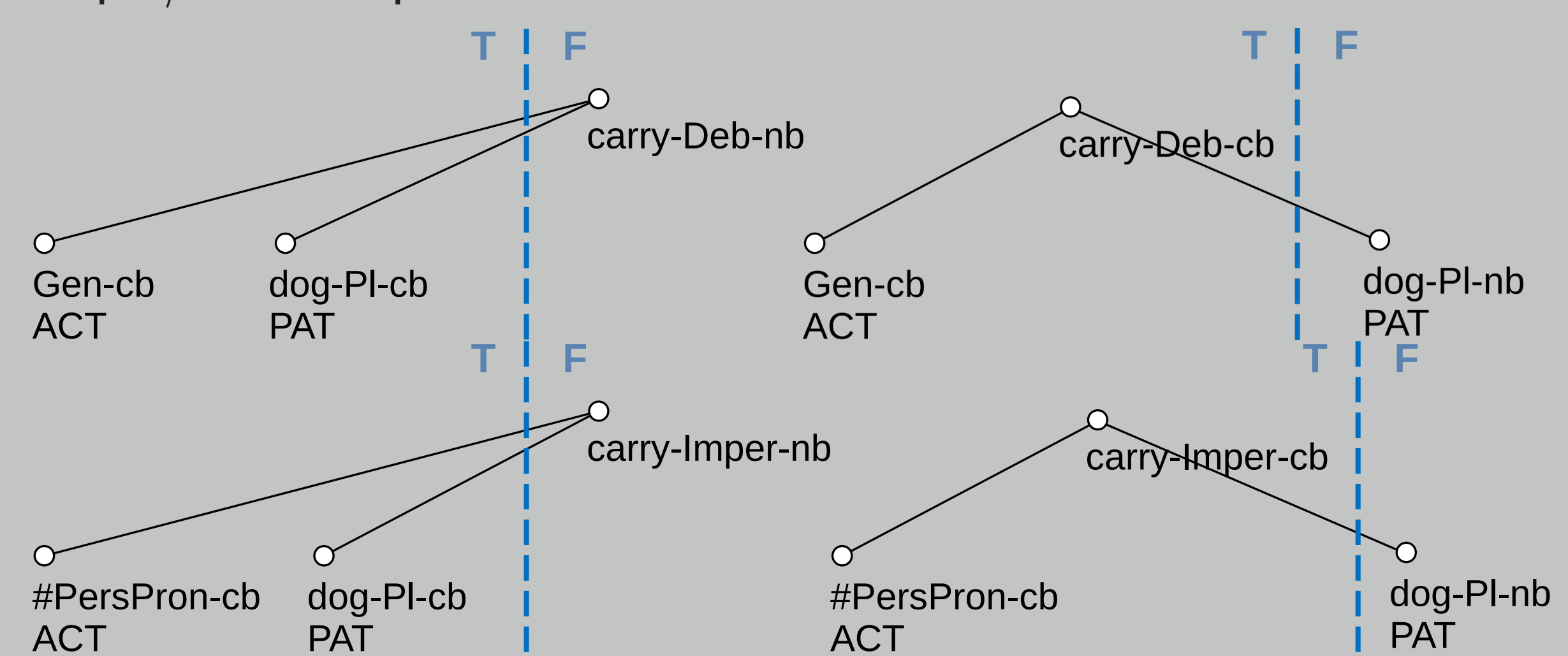
Prague Dependency Treebank Multi-Layered Annotation
incl. underlying dependency-based syntactico-semantic level

- ▶ Syntactic functions: Actor, Patient, Addressee, etc.
 - ▶ Topic-Focus articulation attribute: *cb* – contextually bound non-contrastive, *c* – contextually bound contrastive, *nb* – contextually non-bound; cognitive background of the distinction of *cb*, but the distinction itself is an opposition understood as grammatically patterned
- (8) (Preceding context: Tom visited us with his friends.)
My mother recognized only HIM, but no one from his COMPANY
Tom and his friends: 'given' by the preceding context but structured as non-bound.



Topic-Focus assignment

Topic/Focus bipartition: based on the features *cb* or *nb*



Evaluation

- ▶ SH algorithm applied to a part of PDT data (11,000 sentences) Zikánová et al. (2009): clear division T/F – 94.28% of sentences, F dependent on a contextually-bound node – 4.41 % of sentences
- ▶ A different evaluation in Rysová et al. (2015)
Gold data: 319 sentences (12 documents) T/F annotated by a linguist

Measure	SH algorithm
F1-measure in topic	0.89
F1-measure in focus	0.95
overall accuracy on tectogrammatical nodes	0.93
overall accuracy on whole sentences	0.75

Acknowledgments

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