Hauptseminar Semantics 2

Presuppositons in LRS

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Questions on the Yule text?

Procedure

- What are the logical forms we need for sentences that contain presuppositions?
- Which parts of these logical forms are contributed by the presupposition?
- Define a feature percolation mechanism

Semantic representations of embedded clauses

Vladimir thinks that Godot will arrive.
think2(vladimir,^(arrive1(godot)))

Syntax of the up-operator (^φ):

For each formula φ, ^φ is a proposition.

What is a proposition?

So far, we evaluated formulae with respect to a model.

Problem: everything was static!

Now: evaluate formulae with respect to a model AND a scenario, i.e. a possible setting within a model.

[[φ]]M,w = true iff φ is true in scenario w.

For each formula φ,

[[^φ]] = { w | w is a scenario in which [[φ]]M,w = true}

Example: Waiting for Godot. Every act is a scenario: w1, w2

I(blind1)(w1) = { }

I(blind1)(w2) = { <Pozzo> }

[[^blind1(pozzo)]]M,w1 = { w2 }

Normally: we assume enough scenarios/worlds so that we can distinguish between enough different propositions.

I(arrive1)(w1) = { <Pozzo>, <Lucky>, <Boy> }

I(arrive1)(w2) = { <Pozzo>, < Lucky>, <Boy>}

[[^arrive1(godot)]]M,w2 = { }

Let's assume:

Estragon only believes propositions that contain the current scenario.

Vladimir only believes propositions that do not contain w2.

^bleid1(pozzo)

[[believe2(estra,^arrive1(pozzo))]]M,w1 = true

{w1, ~~w2~~}

[[believe2(vlad,^arrive1(godot))]]M,w2 = true

{ }

[[believe2(estra, ^bleid1(pozzo))]]M,w1

{w2}

= false

[[...]]M,w2 = true

Embedded clauses and existential quantifiers

ES hoax

Vladimir believes that some man is blind.

[believe2(estra,^∃x(man1(x):blind1(x)))]^M ~~w1: false~~ ~~w2: false~~ w1: false w2: true

[[^∃x(man1(x):blind1(x))]] = {w2}

[∃x(man1(x):believe2(estra,^blind1(x))]^M ~~w1: false~~ ~~w2: true~~ w1: false w2: true

[[^blind1(pozzo))]] = {w2}

[[^blind1(vlad))]] = { }

...

Embedded clauses and existential quantifiers

Vladimir believes that some man is blind.

[believe2(~~estra~~ vlad,^∃x(man1(x):blind1(x)))]^M ~~w1: false~~ ~~w2: false~~ w1: false w2: false

[[^∃x(man1(x):blind1(x))]] = {w2}

[∃x(man1(x):believe2(~~estra,~~ vlad^blind1(x))]^M ~~w1: true~~ ~~w2: true~~ w1: true w2: true

that ES

[[^blind1(pozzo))]] = {w2}

[[^blind1(vlad))]] = { }

... [[^blind1(estra)]] = { }

Vlad believes
that Vlad doesn't believe
that so. is blind.

$bel_2(vlad, {}^\wedge\neg bel_2(vlad, {}^\wedge\exists x\, blind_1(x)))$

$[\![{}^\wedge\exists x\, blind_1(x)]\!] = \{w_2\}$

$[\![{}^\wedge\neg bel_2(vlad, \ldots)]\!] = \{w_1, w_2\}$

Principles of presupposition projection

1) In every phrase, the PRES value of the mother contains at most PRES elements from the daughters and nothing else.

2) In every phrase, if a PRES element of a daughter is not in the PRES list of the mother, it occurs in the EXCONT value of the mother inside the scope of some operator, here: ∃, ∀, ¬, ^.

3) Maximize presuppositions: The preferred reading of an utterance is such that the PRES the elements that are in PRES should be in the scope of as few operators that are not in PRES as possible.

Example

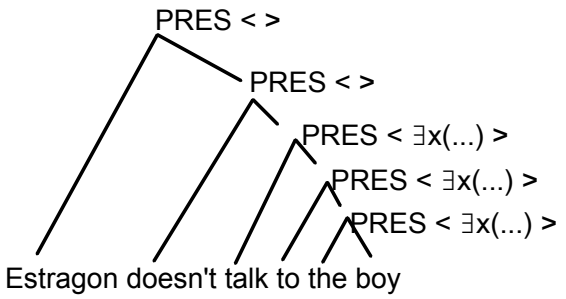
Estr. didn't talk to the girl, because there is no girl.

¬ ∃

Estragon doesn't talk to the boy.

∃x(boy1(x):¬talk2(estra,x))

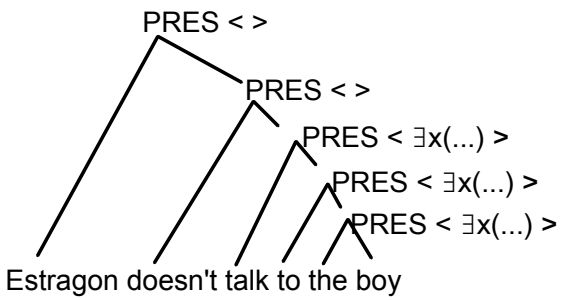
¬∃x(boy1(x):talk2(estra,x))



Example

Estragon doesn't talk to the boy.

¬∃x(boy1(x):talk2(estra,x))



Alex thinks [that Pat didn't talk to Kim's wife], but we know that Kim is not married.

$\exists \quad \forall \quad \neg \quad \wedge$

$\neg \exists x(\ldots;\ldots)$

?? Kim's wife didn't call, because Kim isn't married.

✓ I don't think that K's wife called,

$\neg$ believe(..., $\neg \exists x$(because ...

Retrieval location $(\varphi \supset \psi)$

If the king of France is bald, then

$(\exists x(\text{kofF}(x) : \text{bald}_1(x)) \supset \ldots$

$\exists x(\text{kofF}(x) : (\text{bald}_1(x) \supset \ldots)$

If the king of France is bald, then Alex can't cut his hair.

$\exists x(\text{kofF}(x) : (\text{bald}_1(x) \supset \neg \text{cut}_{\text{hair}}(x))$

Kim believes that the king of France is bald, but there is no king of F.

Kim believes that the king of France is bald, but I know that he just has very short hair.

References

Grundy, Peter. 2008. *Doing pragmatics*. London: Hodder Education. 3rd edn.

Yule, George. 1996. Pragmatics. Oxford: Oxford University Press.