Formale Semantik
09. Tempus und Modalität

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Folien in Überarbeitung. Englische Teile (ab Woche 8) sind noch von 2007!
Stets aktuelle Fassungen: `https://github.com/rsling/VL-Semantik`

Inhalt

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- Get a first idea of why we need the *up* operator $\hat{}$.

Tense

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- *What$_i$ **did** you expect t_i?* vs. *Nani-o yokishi-**ta**-ka.*

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- $[_{TP}\ NP\ T\ VP] \Rightarrow [_{TP}\ T\ NP\ VP]$ (T raising)

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- $V(\beta)$: non-relativized function for all β which are not a proper name
- $V(\beta)(\langle w, i \rangle)$: V valuates β to a function from world-time pairs to the denotata of the predicate (sets of individuals, tuples of them, etc.)

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- shifts of evaluation time

Reichenbach

	past (R<S)	present (R,S)	future (S<R)
anterior(E<R)	E<R<S *er war gegangen*	E<R,S *er ist gegangen*	S<E<R S,E<R E<S<R *er wird gegangen sein*
simple(E,R)	E,R<S *er ging*	E,R,S *er geht*	S<E,R *er wird gehen*
posterior(R<E)	R<E<S R<S,E R<S,E R<S<E **er würde gehen*	R,S<E *er wird gehen*	S<R<E **er wird gehen werden*

Embedded tenses and adverbials

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Modality

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- affixes: *Frau Eckardt is recognizable.*

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- like tense: sentence operators
- modal *Aux* in English is tense-insensitive (evidence for *Infl*)
- $\Box$ and $\Diamond$ in intensional predicate calculi (IPC): exploit the full set of possible worlds
- in NL: evaluation of modal expressions against restricted conversational backgrounds

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- we call the conversationally relevant background the set of $\langle w, i \rangle$ pairs relevant to the interpretation of the sentence

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- known facts narrow down the root background

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- statable in propositional form (ten commandments, law, ...)

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- such that all possible worlds are: $\bigcap g(\langle w, i \rangle)$

Embedding

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- $[_{IP}$ *Racine believes* $[_{CP}$ *that* $[_{IP}$ *theatre rules*$]]]$
- CP (fully fledged sentence) receives theta role by *believe* under government.

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- PRO, controlled by the subject of *has plans*:
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- belief: $\langle w, i \rangle$ is an element of the proposition of CP

Translating *that* as ˆ

- value of propositional attitude (PA) verbs: functions $[\langle w, i\rangle \rightarrow \langle u_n, p\rangle]$ with $u_n \in U$, p a proposition (set of $\langle w_n, i_m\rangle$) and compatible to u_n's background

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- ^rids us of the problem that the belief content looks truth-conditional (a sentence) but doesn't contribute to the embedding sentence's truth-value. PA verbs take intensions as arguments.

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- and actually is sinister guy in the alley!
- Only Ralph doesn't know.

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- true: since Ortcutt and the guy in the hat are one individual
- false: since Ralph doesn't know that and in a way 'doesn't believe it'

de dicto and *de re*

- the Russelian interpretation for *the* like $\exists$ with a uniqueness condition (as a GQ): $\lambda Q \lambda P \left[\exists x \left[Q(x) \wedge P(x)\right] \wedge \forall y \left[Q(y) \leftrightarrow y = x\right]\right]$

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- [$_{IP}$ the guy from the beach$_i$ [$_{IP}$ Ralph believes [$_{CP}$ that x_i is a spy]]]
- makes the sentence true: the ***de re*** reading
- Ralph believes [$_{CP}$ that [$_{IP}$ the guy from the beach$_i$ [$_{IP}$ x_i is a spy]]]
- makes the sentence false: the ***de dicto*** reading

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- *John tries to sing.*
- $try(j, \hat{}swim)$

Literatur I

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Lizenz