

Formale Semantik

09. Tempus und Modalität

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stets aktuelle Fassungen: <https://github.com/rsling/VL-Deutsche-Syntax>

1

Tense

- Priorian operators
- Tense raising
- Interpretation
- Some problems

2

Modality

- Realizations of modality

- Types of modality

- Modeling the background

3

Embedding

- Syntax
- Believe semantics
- Ambiguities
- Infinitives and gerunds

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

Tense

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- $\llbracket PD(a) \rrbracket^{\mathcal{M}, w, i', g} = 1$

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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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- there is **at least one** s.t. $\llbracket TP \rrbracket^{\mathcal{M}, w, i', g} = 1$

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- $V(\beta)(\langle w, i \rangle)$: V evaluates 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

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

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- *Yesterday, Maria woke up happy.*

Embedded tenses and adverbials

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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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- 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

- 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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- the full logic of $\hat{}$ and \sim as designed by Montague next week
- $\hat{}$ 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'

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 - at $\langle w, i \rangle$ the first individual in space (definitely Y.G.) is not Y.G. in an accessible world

- *Yuri Gagarin might now have been the first man in space.*
- some Mickey Mouse LFs:
 - \Diamond THE(first-man-in-space)(not-be-Gagarin)
 - at some $\langle w_n, i_m \rangle$ the first individual in space is not Y.G.
 - THE(first-man-in-space)(\Diamond [not-be-Gagarin])
 - at $\langle w, i \rangle$ the first individual in space (definitely Y.G.) is not Y.G. in an accessible world
 - Names are rigid designators across world-time-pairs, definite descriptions aren't.

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

Kontakt

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