



Layers of Assertive Clauses: Propositions, Judgements, Commitments, Acts

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What is an assertion?



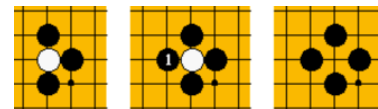
- What do we typically do when we assert?
 - We communicate information, about the real or imaginary worlds/times
 - typically by restricting the possibilities how this world/time may look like
- The dynamic view of assertions (Stalnaker 1974, 1978):
 - Common ground CG as information assumed to be shared by speaker / addressee, modeled by context set c = set of world-time indices $\{i \mid \dots\}$
 - is restricted by the content of a proposition φ , a function from indices to truth values:
 $c + \varphi = \{i \in c \mid \varphi(i)\}$
- Straightforward modeling
 - Proposition: φ indices \rightarrow truth values
 - Assertion operator: $\lambda p \lambda c [c + p]$ propositions \rightarrow [context sets \rightarrow context sets]
 - Assertion: $\lambda p \lambda c [c + p](\varphi)$
 $= \lambda c [c + \varphi]$ context sets \rightarrow context sets

What is an assertion?



- Is assertion just a move in a game?
 - We can assume certain rules for update, e.g. presupposition that it does not lead to an empty or the same CG: $\lambda p \lambda c: [c+p \neq \emptyset, \neq c] [c + p]$

- However, different from a move in plays like chess or go, as it depends on the addressee whether a move is accepted.



- Game-move theories that take into account the behavior of the addressee: cf. Hamblin 1971, addressee can retract a proposition
cf. Merin 1994, “algebra of social acts”
cf. Farkas & Bruce 2010, “negotiating table”

■ The pragmatic dimension

- From understanding to acceptance to update: Lauer 2013
- (i) $c + S_1$ to S_2 : *It is snowing.* = c' utterance event
- (ii) $c' + S_1$ asserted ‘*It is snowing*’ = c'' cautious update, S_2 understands S_1
- (iii) $c'' +$ ‘*It is snowing.*’ credulous update, S_2 believes S_2

■ How to get from (i) via (ii) to (iii)

- (i) – (ii): syntactic decoding of utterance
- (ii) – (iii): acceptance of content of assertion

Three pragmatic theories of assertion



■ I believe φ : Bach & Harnish 1979, Lauer 2013

- S_1 expresses belief in φ , S_2 considers S_1 well-informed and trustworthy
- Explains disbelief paradox (Moore): *#It is snowing but I don't believe it.*
- Asserted belief difference: *It is snowing* \neq *I believe that it is snowing.*

Cf. discussion in MacFarlane 2011

■ I want you to believe φ : Bach & Harnish 1979, Zaefferer 2001, Truckenbrodt 2006

- S_1 expresses intention that S_2 believes φ , S_2 goes along with that intention
- Explains belief transfer paradox: *#It is snowing but I don't want you to believe it.*
- Don't care paradox (Searle 2001): \checkmark *Believe it or not, but it is snowing.*

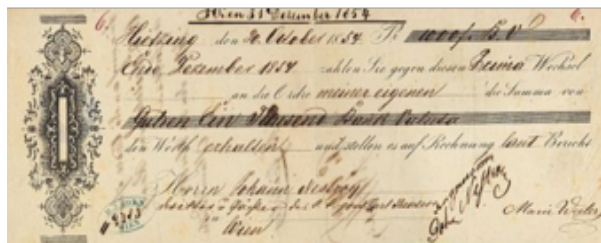
■ Blame me if not φ : Ch. S. Peirce, Brandom 1983, Alston 2000, ... Geurts 2019

- S_1 declares commitment, vouches for truth of φ , backed up by social sanctions if φ is false
 S_2 takes this commitment backed up by sanctions to assume φ as well,
 S_1 intends this (and A knows that S intends it): Accept φ by conversational implicature
- Explains blame paradox: *#It is snowing, but don't blame me if it is not snowing.*
- Explains disbelief paradox: If S_1 expresses public disbelief in φ , commitment to φ does not help to communicate φ – it is like writing a check and saying that it is not covered
- Explains asserted belief difference: Commitment to $\varphi \neq$ commitment to ‘ S_1 believes that φ ’
- Explains belief transfer paradox: Committing to φ is typically meant to communicate φ
- Explains don't care paradox: It might be independently important to express a commitment

The commitment theory of assertion



- Roots of the commitment theory: Ch. S. Peirce, cf. Tuzet 2006
- “[A]n act of assertion supposes that, a proposition being formulated, a person performs an act which renders him liable to the penalties of the social law (or, at any rate, those of the moral law) in case it should not be true, unless he has a definite and sufficient excuse.” [CP 2.315].
- “the assuming of responsibility, which is so prominent in solemn assertion, must be present in every genuine assertion. For clearly, every assertion involves an effort to make the intended interpreter believe what is asserted, to which end a reason for believing it must be furnished. But if a lie would not endanger the esteem in which the utterer was held, nor otherwise be apt to entail such real effects as he would avoid, the interpreter would have no reason to believe the assertion” [CP 5.546]
- translate *esteem* by *social capital* (Bourdieu 1980)
- From commitment to acceptance:
- If c contains the commitment of a trustworthy source to a proposition φ , and if c does not contain disagreement about φ , then apply informational update $c + \varphi$
- Cf. general collaborative principle of Walker (1996): participants should voice any disagreement about proposition as soon as possible; a general rule to maintain common ground (cf. also Clark & Schaefer 1989 for maintenance of CG)
- A monetary simile: Bill of Exchange
- S_1 declares vouches for truth of φ to S_2
 S_2 can claim φ , referring back to S_1
- S_1 pays S_2 with a bill of exchange,
 S_2 can use it to pay S_3 , etc.,
the bill ultimately is checked with S_1 's bank.



“Wechsel” by theatre director Johann Nestroy 1854, 1000 Guilders

Commitment vs. Beliefs



- Asserting simple sentences vs. belief sentences
- (a) *It is snowing.*
- (b) *I believe that it is snowing.*
- (b) gives the impression of a “weaker” assertion, difficult to explain for belief theory, as $\text{Bel}(\varphi) \Leftrightarrow \text{Bel}(\text{Bel}(\varphi))$ in plausible epistemic models due to positive self-intimation, Smithies 2012
- Asserting strong belief sentences do not lead to stronger assertions
- (c) *I am absolutely certain that it is snowing.*
surprisingly a “weaker” assertion than (a)
- B: *You are a liar!*
A: *No, I was really absolutely certain about it!*
- In commitment theory of assertion:
- (a) S commits to ‘It is snowing’
- (b) S commits to ‘ S_1 believes that it is snowing’
(b') S commits to ‘ S_1 is certain that it is snowing’
- (b) or (b') are easier to defend in case the proposition turns out to be false, because the commitment was to one's epistemic attitude only.

Commitments vs. Judgements



Peirce on assertions vs. assents / judgements

- "(...) an act of **assent** is an act of the mind by which one endeavors to impress the meanings of the proposition upon his disposition, so that it shall govern his conduct, this habit being ready to be broken in case reasons should appear for breaking it." [CP 2.315]
- What is the essence of a **judgement**? A judgment is the mental act by which the judger seeks to impress upon himself the truth of the proposition. It is much the same as an act of **asserting** the proposition, or going before a notary and assuming formal responsibility for its truth, except that those acts are intended to **affect others**, while the **judgment** is only intended to **affect oneself**. (CP 2.252)

Frege on thoughts, judgments and assertions (Frege 1918):



- **Two things** must be distinguished in an indicative sentence: the **content** (Inhalt), which it has in common with the corresponding sentence-question, and the **assertion** (Behauptung). The former is the thought (Gedanke), or at least contains the thought. So it is possible to express the thought without laying it down as true. Both are so closely joined in an indicative sentence (Behauptungssatz) that it is easy to overlook their separability. Consequently we may distinguish:
 1. the apprehension of thought – **thinking** (Gedanke)
 2. the recognition of the truth of a thought – **judgement** (Urteilen)
 3. the manifestation of this judgement – **assertion** (Behaupten)

Frege syntactified

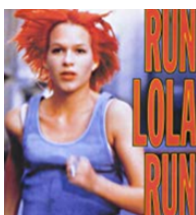


Frege's distinctions represented by distinct syntactic levels

Semantic Type	Syntactic constituent	Constituent	Head	Head position
Propositions	Tense Phrases	TP	tensed verb	final
Judgements	Judgement Phrases	JP	J-	head final
Commitments	Commitment Phrases	ComP	┌	head final
Updates	Act Phrases	ActP	•	head second

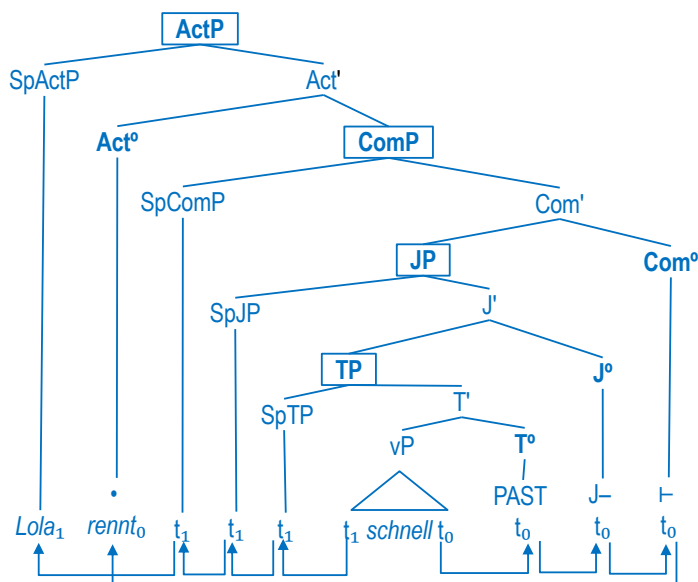
Evidence

- Sequencing of sentence adverbials
- Here: German



Example analysis

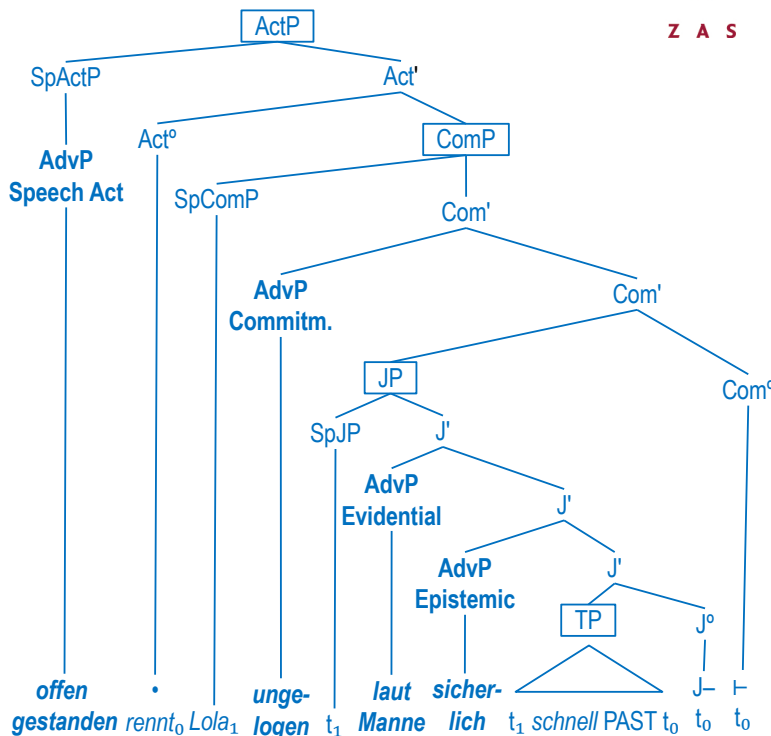
- *Lola rennt schnell.*
Lola runs fast
'Lola is running fast'
- Assumptions of X-bar-analysis:
[_{XP} Spec [_{X'} [_{X°} Head] [_{YP} Complement]]]
- Head movement of finite verb,
XP movement to SpecActP



Why this syntactic representation?



- Position of sentence adverbs
- Judgement Phrase
 - Subjective epistemic modifiers e.g. *sicherlich* ‘certainly’
 - Evidential modifiers e.g. *anscheinend* ‘apparently’, *laut Manne* ‘according to Manne’
- Commitment Phrase
 - Commitment modifiers e.g. *ungelogen* ‘truly’
- Act Phrases
 - Speech act modifiers e.g. *offen gestanden* ‘frankly’
- Cf. Cinque 1998, hierarchy of adverbials:
 - Speech Act > > (Evaluation) > Evidentiality > Epistemics
 - ↑ Commitment



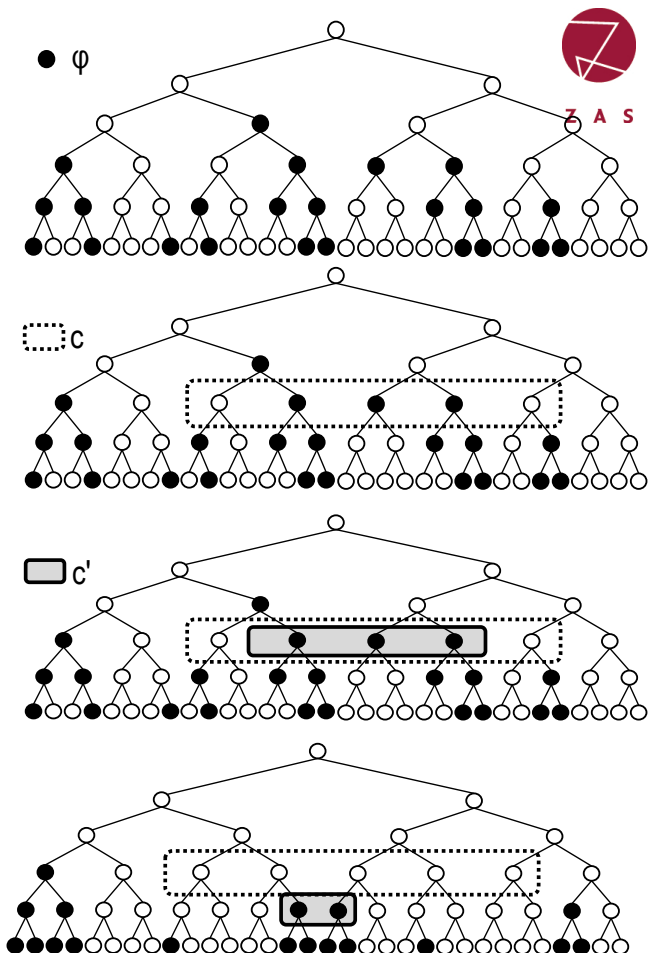
Compositional interpretation



- Interpretation is with respect to (at least) three parameters
 - $\llbracket \textit{expression} \rrbracket^{s,a,j}$: the meaning of *expression* with s speaker, a addressee, j judge
- Interpretation of TP: proposition
 - $\llbracket \llbracket \textit{TP Lola schnell rennt} \rrbracket \rrbracket^{s,a,j}$
 $= \lambda i \exists e [\textit{run}(i)(e)(\textit{lola}) \wedge \textit{fast}(i)(j)(e)]$
 indices \rightarrow truth values, true iff there is a running event e by Lola in i that j considers fast
- Interpretation of JP: making judge parameter available
 - $\llbracket \llbracket \llbracket \textit{JP Lola}_1 \llbracket \llbracket \textit{TP t}_1 \textit{ schnell t}_0 \rrbracket \llbracket \textit{J}^\circ \textit{ J} - \textit{rennt}_0 \rrbracket \rrbracket \rrbracket^{s,a}$
 $= \lambda x \llbracket \llbracket \textit{TP Lola schnell rennt} \rrbracket \rrbracket^{s,a,x}$
 $= \lambda x \lambda i \exists e [\textit{run}(i)(e)(\textit{lola}) \wedge \textit{fast}(i)(x)(e)]$
- Interpretation of ComP: introducing commitment
 - $\llbracket \llbracket \llbracket \llbracket \textit{ComP Lola}_1 \llbracket \llbracket \textit{JP t}_1 \llbracket \llbracket \textit{TP t}_1 \textit{ schnell t}_0 \rrbracket \llbracket \textit{J}^\circ \textit{ t}_0 \rrbracket \llbracket \textit{Com}^\circ \textit{ } - \textit{rennt}_0 \rrbracket \rrbracket \rrbracket \rrbracket^{s,a}$
 $= \lambda x \lambda i [x \text{ is committed in } i \text{ that } \llbracket \llbracket \textit{JP Lola}_1 \llbracket \llbracket \textit{TP t}_1 \textit{ schnell t}_0 \rrbracket \llbracket \textit{J}^\circ \textit{ J} - \textit{rennt}_0 \rrbracket \rrbracket \rrbracket^{s,a} (x) \text{ is true in } i]$
 $= \lambda x [x \vdash \lambda i \exists e [\textit{run}(i)(e)(\textit{lola}) \wedge \textit{fast}(i)(x)(e)]]$, in short
 - identification of committer with judge

From propositions to acts

- Indices i
 - ordered by branching time relation
 - propositions are true / false w.r.t. indices
- Common grounds c
 - sets of indices
 - taken to represent shared knowledge how the world of conversation is like
- Informative update (Stalnaker 1978)
 - restriction of set of indices by proposition
 - $c + \cdot\varphi = \{i \in c \mid \varphi(i)\}$
- Performative update (Szabolcsi 1982)
 - minimal change of index to make proposition true
 - $c + \bullet\varphi = \{i \mid \exists i' \in c [i' \rightsquigarrow i \mid \varphi]\}$, cf. Krifka 2014



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Assertions as performing commitments

- Interpretation of ActP, performative update
 - $[[[_{\text{ActP}} \text{Lola}_1 [_{\text{Act}'} [_{\text{Act}''} \bullet \text{rennt}_0] [_{\text{Comp}} t_1 [_{\text{JP}} t_1 [_{\text{J}'} [_{\text{TP}} t_1 \text{schnell } t_0] [_{\text{J}''} t_0]] [_{\text{Com}''} \vdash t_0]]]]]]]]]^{s,a}$
 - = $\lambda c [c + \bullet [[[_{\text{Comp}} \text{Lola}_1 [_{\text{JP}} t_1 [_{\text{J}'} [_{\text{TP}} t_1 \text{schnell } t_0] [_{\text{J}''} t_0]] [_{\text{Com}''} \vdash \text{rennt}_0]]]]]]]^{s,a} (s)]$
 - = $\lambda c \{i \mid \exists i' \in c [i' \rightsquigarrow i \mid [\chi \vdash \lambda i \exists e [\text{run}(i)(e)(\text{lola}) \wedge \text{fast}(i)(s)(e)]]]]\}$
 - identification of committer with speaker s
- Update of common ground with assertion:
 - $c_0 + S_1: [[[_{\text{ActP}} \text{Lola} \bullet \text{rennt schnell } \text{J}- \vdash]]]^{s,a}$
 - = $\{i \mid \exists i' \in c_0 [i' \rightsquigarrow i \mid [\chi \vdash \lambda i \exists e [\text{run}(i)(e)(\text{lola}) \wedge \text{fast}(i)(S_1)(e)]]]]\} = c_1$
 - c_0 is changed minimally such that the speaker is now committed to the truth of the proposition that there is an event of running by Lola that the speaker considers fast
 - Notice: “descriptive” assertions have a performative part.
- From commitments to propositions by credulous update:
 - If s is a trustworthy participant in conversation and $\forall i \in c: s$ is committed to φ in i , and the participants in conversation do not object, then update c to $c + \varphi$
 - If S_1 is trustworthy, nobody objects: update c_1 to $c_1 + \lambda i \exists e [\text{run}(i)(e)(\text{lola}) \wedge \text{fast}(i)(S_1)(e)]$
- The “assertion” operator is a combination of operators + implicature
 - equivalent to combination of \bullet and \vdash , interpreted as $\lambda p \lambda c [c + \bullet [s \vdash p]]$
 - with intended update by convers. implicature, perlocutionary act: $\lambda p \lambda c [[c + \bullet [s \vdash p]] + p]$



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Judgement modifiers: Epistemic operators



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- Expression of judger's epistemic attitude towards proposition
- How epistemic judgment modifiers work
 - $\llbracket \llbracket \text{JP } [J' \text{ [AdvP } \textit{sicherlich}]] \llbracket \text{JP } [\textit{Lola schnell rennt}] \llbracket \text{J}^\circ \text{ J-} \rrbracket \rrbracket \rrbracket^{\text{s,a}}$
= $\lambda x \lambda i [\text{CERTAIN}(x)(i)(\lambda i \exists e[\text{run}(i)(e)(\textit{Lola}) \wedge \text{fast}(i)(x)(e)]])]$
 - $\llbracket \llbracket \text{Comp } [_{\text{Comp}} \llbracket \text{JP } [J' \text{ [AdvP } \textit{sicherlich}]] \llbracket \text{JP } [\textit{Lola schnell rennt}] \llbracket \text{J}^\circ \text{ J-} \rrbracket \rrbracket \rrbracket \llbracket \text{Comp}^\circ \text{ } \vdash \rrbracket \rrbracket \rrbracket^{\text{s,a}}$
= $\lambda x [x \vdash \lambda i [\text{CERTAIN}(x)(i)(\lambda i \exists e[\text{run}(i)(e)(\textit{Lola}) \wedge \text{fast}(i)(x)(e)]])]$, x set to speaker by ActP
 - If a reasonable source is epistemically positive about a proposition and there is no voiced disagreement, then assume the proposition in common ground.
 - S₁ communicates φ by committing to own epistemic attitude towards φ – this is safer!
- Prediction: epistemic attitude must be positive
 - *Lola rennt (*nicht) (*un)sicherlich schnell / rennt* 'Lola (*not) (*un)certainly is running fast.'
 - cf. Belletti 1977, Nuyts 1993, Nilsen 2004, Papafragou 2006, Ernst 2009, Wolf 2012
 - contrast epistemic **adverbials** with epistemic **adjectives**:
Es ist nicht sicher / unsicher, dass/ob Lola schnell rennt.
'It is not certain / uncertain that / whether Lola is running fast.'
- express epistemic attitude by another source (v. Fintel & Gillies 2009), this is part of the TP
 $\llbracket \llbracket \text{JP } [J' \text{ [TP } \textit{es sicher ist [dass Lola schnell rennt]]} \llbracket \text{J}^\circ \text{ J-} \rrbracket \rrbracket \rrbracket^{\text{s,a}}$
= $\lambda x \lambda i \exists y [\text{CERTAIN}(y)(i)(\lambda i \exists e[\text{run}(i)(e)(\textit{Lola}) \wedge \text{fast}(i)(y)(e)]])]$

Judgement modifiers: Epistemic markers



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- Epistemic head marking, subjective epistemic verbs (Lyons 1977)
 - $\llbracket \llbracket \text{JP } [\textit{Lola}_1 \llbracket \text{VP } [t_1 \textit{ schnell rennen}] \llbracket \text{J}^\circ \textit{ muss} \rrbracket \rrbracket \rrbracket$
'Lola must be running fast.'
 - subjective epistemic modal verb generated in head of JP
- Objective epistemic readings possible: negatable, temporally shiftable
 - S₁: *Max muss zuhause sein, weil das Licht in seiner Wohnung an ist.*
S₂: *Max muss nicht zuhause sein, er könnte das Licht angelassen haben.*
 - S₁: *Das Licht in der Wohnung war damals an. Max musste also zuhause sein.*
- $\llbracket \llbracket \text{JP } [\textit{Lola}_1 \llbracket \text{VP } [t_1 \textit{ schnell rennen muss}] \llbracket \text{J}^\circ \text{ J-} \rrbracket \rrbracket \rrbracket$
- Lack of objective readings for *müsste*:
 - **Max müsste nicht zuhause sein, er könne das Licht angelassen haben.*
 - **Das Licht in der Wohnung war damals an. Max müsste also zuhause sein.*

Judgement modifiers: Evidential operators



- Evidential modifiers, identifying source of epistemic attitude
 - either related to sensory experience, e.g. *augenscheinlich* 'apparently', evidential morphology on heads in many languages
 - or related to commitment of others, reportative, e.g. *laut Manne* 'according to Manne'
- How evidential judgement modifiers work
 - Speaker declares commitment to an evidential source for a proposition
 - $[[[[_{JP} [_{J'} [_{AdvP} \textit{laut Manne}] [_{J'} [_{TP} \textit{Lola schnell rennt}] [_{J^o} J-]]]]]]]^{s,a}$
 $= \lambda x [\textit{manni} \vdash \lambda i \exists e [\textit{run}(i)(e)(\textit{lola}) \wedge \textit{fast}(i)(\textit{manni})(e)]]$
 - Pragmatic rule: If a reasonable source commits to a proposition, no voiced disagreement: assume the proposition in common ground (cf. Faller 2019 for evidentials)
 - Achieved via commitment by speaker to another source's commitment, which is safer.
- Evidential head marking
 - German *sollen* as a reportative marker, indefinite source (Schenner 2009)
 $[[[[_{JP} \textit{Lola}_1 [_{J'} [_{VP} t_1 \textit{schnell rennen}] [_{J^o} \textit{sol/}]]]]]]^{s,a}$
 $= \lambda x \exists y [y \vdash \lambda i \exists e [\textit{run}(i)(e)(\textit{Lola}) \wedge \textit{fast}(i)(y)(e)]]$
 - Konjunktiv I as shifted reportative marker (Truckenbrodt & Sode 2018)
Manni war beruhigt. Lola laufe sehr schnell, sie würde sicher rechtzeitig ankommen.
 $\lambda x \exists y: y \text{ an introduced authority } \neq s [y \vdash \lambda i \exists e [\textit{run}(i)(e)(\textit{Lola}) \wedge \textit{fast}(i)(y)(e)]]$

Commitment specifiers



- Raise the commitment level / social consequences → Norms of assertion
 - *bei Gott* 'by God', *im Ernst, ernsthaft, echt* 'seriously', *wirklich* 'really' *ungelogen* 'not lyingly', *wahrhaftig* 'truly', Bavarian *ohne Schmarrn* 'no nonsense', Kiezdeutsch *ischwör* 'I swear'
 - Arabic, Mughazi 2003 *wallaah* 'by God', *winnabi* 'by the Prophet', *wi?ingiiil* 'by the Bible'
 - $[[[[_{ComP} \textit{Lola}_1 [_{Com'} [_{AdvP} \textit{echt}] [_{Com'} [_{JP} [_{J'} [_{TP} t_1 \textit{schnell rennt}] [_{J^o} J-]]]]]]]^{s,a} [_{Com^o} \vdash]]]]]$
 $= \lambda x \lambda i [x \text{ is seriously committed in } i \text{ that } \lambda i \exists e [\textit{run}(i)(e)(\textit{lola}) \wedge \textit{fast}(i)(x)(e)] \text{ is true in } i]$
- How commitment specifiers work
 - When speaker updates the common ground by a serious commitment, the social stakes are higher, useful for communicating a proposition that is likely to be objected to.
 - also, identifying type of communication as serious, in contrast to non-serious communication (bullshit, Frankfurt 1980).
 - of course, this is a move in the conversational game that might be not trustworthy
- Commitment head marking in explicit performatives, performative verb in Com^o
 - S_1 to S_2 : $[_{ActP} \textit{ich}_1 [_{Act'} [_{Act^o} \bullet \textit{schwöre}] [_{ComP} t_1 [_{Com'} [_{CP} \textit{dass Lola rennt}] [_{Com^o} t_o]]]]]]$
 - $\lambda c \{i \mid \exists i' \in d [i' \circ \bullet i [s \text{ is committed by swearing in } i \text{ that } \lambda i \exists e [\textit{run}(i)(e)(\textit{lola})] \text{ is true in } i]]$

Act Specifiers



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- Motivate or explain the speech act, set it in relation to other speech acts
 - *offen gesagt* 'frankly speaking', *mit Verlaub* 'if I may say so', *mit anderen Worten* 'in other words', *am Rande bemerkt* 'by the way', *erstens* / *zweitens* 'first' / 'second' ...
 - S_1 to S_2 : $[_{ActP} \textit{Offen gesagt} [_{Act'} [_{Act^o} \bullet \textit{ist}_0] [_{Comp} \textit{Manni}_1 [_{JP} [_{TP} t_1 \textit{ein Idiot} t_0] [_{J^o} J-]]] [_{Com^o} \vdash]]]]$
'Frankly speaking, Manni is an idiot.'
 - *offen gesagt* 'frankly speaking' states about the index change enacted by the speaker that it follows the rules of honesty rather than, e.g., politeness
 - $= \lambda c \{i' \mid \exists i \in c [i \dashv\rightarrow i'] [\lambda i [S_1 \vdash_i \lambda i [\textit{idiot}(i)(S_1)(manni)]]] \wedge \textit{FRANK}(S_1, c, \lambda i \lambda i' [i \dashv\rightarrow i'] [\lambda i [S_1 \vdash_i \lambda i [\textit{idiot}(i)(S_1)(manni)]]]]]\}$
- Head marking of Act Specifiers
 - Analysis of questions in Krifka (2015) as elicited assertions
 $[_{ActP} \emptyset [_{Act'} [_{Act^o} ? \textit{rennt}_0] [_{Comp} \textit{Lola}_1 [_{JP} t_1 [_{TP} t_1 \textit{schnell} t_0] [_{J^o} J-]]] [_{Com^o} \vdash]]]]$
 $[_{ActP} \textit{wer}_1 [_{Act'} [_{Act^o} ? \textit{rennt}_0] [_{Comp} t_1 [_{JP} t_1 [_{TP} t_1 \textit{schnell} t_0] [_{J^o} J-]]] [_{Com^o} \vdash]]]]$
 - Semantic analysis by commitment spaces that have a projective component
- Performative use of declarative sentences (Recanati 1987)
 - do not imply any commitment (or judgement), just performative update by proposition
 - $[[[_{ActP} [\textit{die Sitzung}]_1 [_{Act'} [_{Act^o} \bullet \textit{ist}_0] [_{TP} t_1 \textit{eröffnet} t_0]]]]]^{s,a}$
 $= \lambda c \{i' \mid \exists i \in c [i \dashv\rightarrow i'] [\lambda i [\textit{open}(i)(meeting)]]\}$

Positions of speech act adverbials



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- Basic ordering of act, commitment, judgement modifiers follows from layers of the clause:
 - $[_{ActP} [\textit{ActM}] [_{Act'} [_{Act^o} \bullet] [_{Comp} [_{Com} [\textit{ComM}]] [_{Com'} [_{JP} [_{J'} [\textit{JudgeM}] [_{J'} [_{TP}] [_{J^o} J-]]] [_{Com^o} \vdash]]]]]]]]$
- Parenthetical use, exemplified with ActM
 - $\star [_{ActP} \textit{Lola}_1 \star [_{Act'} [_{Act^o} \bullet \textit{rennt}_0] \star [_{Comp} \star [_{Com'} \star [_{JP} \star [_{J'} [_{TP} t_1 \textit{schnell} t_0] [_{J^o} J-]]] [_{Com^o} \vdash]]]] \star$
 where \star : possible positions for parenthetical *offen gesagt*
 - suggested treatment by two-level semantics, cf. Gutzmann 2015
- ActM base-generated in SpecActP, not adjoined to Act'
 - $* [_{ActP} \textit{Manne}_x [_{Act'} \textit{offen gesagt} [_{Act'} [_{Act^o} \bullet \textit{ist}_0] [_{Comp} t_1 [_{JP} [_{TP} t_1 \textit{ein Idiot} t_0] [_{J^o} J-]]] [_{Com^o} \vdash]]]]$
- JudgeM modifiers, just as TP constituents, may move to SpecActP
 - $[_{ActP} \textit{sicherlich}_1 [_{Act'} [_{Act^o} \bullet \textit{rennt}_0] [_{Comp} [_{Com'} [_{JP} [_{J'} t_1 [_{J'} [_{TP} \textit{Lola schnell} t_0] [_{J^o} J-]]] [_{Com^o} \vdash]]]]]]$
 - $[_{ActP} \textit{laut Manne}_1 [_{Act'} [_{Act^o} \bullet \textit{rennt}_0] [_{Comp} [_{Com'} [_{JP} [_{J'} t_1 [_{J'} [_{TP} \textit{Lola schnell} t_0] [_{J^o} J-]]] [_{Com^o} \vdash]]]]]]$
- ComM do NOT move to SpecActP
 - $* [_{ActP} \textit{ungelogen}_1 [_{Act'} [_{Act^o} \bullet \textit{rennt}_0] [_{Comp} [_{Com'} t_1 [_{JP} [_{J'} [_{TP} \textit{Lola schnell} t_0] [_{J^o} J-]]] [_{Com^o} \vdash]]]]]]$
 - Explanation: Movement to ActP comes with an information-structural meaning and is reserved for the constituents of the proposition the speaker declares commitment to, this includes the constituents of the TP and JP

Embedded clauses



- Embedded clauses, dependent on embedding predicate
- *davon abhängen* ‘depend on’, *freuen* ‘be glad’, *ärgern* ‘be annoyed’: TP
*Es freut Manni dass Lola *offen gestanden / *im Ernst / ?sicherlich schnell gerannt ist.*
 ‘Manni is glad that Lola was running fast.’
- *glauben* ‘believe’, *denken* ‘think’ *vermuten* ‘assume’: JP, judge shifted to subject:
*Manni glaubte, dass Lola *offen gestanden / *im Ernst / **sicherlich** schnell rennen würde.*
 ‘Manni believed that Lola certainly would running fast.’
Manni vermutete, dass es laut Wetterbericht regnen würde.
 ‘Manni assumed that according to the weather report it would rain.’
- *sagen* ‘say’, *behaupten* ‘claim’: ComP, committer shifted to subject:
Manni behauptete, dass Lola im Ernst das Geld beschaffen kann.
 ‘Manni claimed that Lola seriously can come up with the money.’
- *mitteilen* ‘to convey’, *zugeben* ‘to confess’, *einräumen* ‘to concede’ ActP, sp shifted to subject:
Manni gab zu, dass er offen gestanden keine Ahnung hat, wo das Geld ist.
 ‘Manni conceded that he frankly speaking has no clue about where is the money.’
- Syntactic analysis of embedded *dass* clauses:
- TP: [CP [C° dass] [TP Lola schnell gerannt ist]]
- JP: ... [JP Lola₁ [_J sicherlich [_J [_{JP} t₁ schnell gerannt ist]]]]
- ComP: ... [ComP Lola₁ [Com° im Ernst [Com° [_{JP} t₁ schnell gerannt ist]]]]
- ActP: ... [ActP Lola₁ [ActP° offen gestanden [Act° [ComP t₁ schnell gerannt ist]]]]

Indirect commitments



- Indirect commitments to a proposition
- *Lola rennt sicherlich schnell.*
Ich glaube, dass Lola schnell rennt. committing to one’s epistemic state
- *Es wird laut Wetterbericht regnen.*
Der Wetterbericht sagt, dass es regnen wird. committing to commitments of others
- Example: Commitment to one’s epistemic state
- [[[[ActP ich₁ [Act° [• glau_e]₀] [ComP t₁ [JP t₁ [TP t₁ t₂ t₀] [_J° J– t₀]]] [Com° t₀]]]]]
 [CP [C° dass] [_{JP} Lola₃ [TP t₃ schnell t₄] [_J° J– rennt₄]]]]]^{s,a}
- [[[[CP [C° dass] [_{JP} Lola₃ [TP t₃ schnell t₄] [_J° J– rennt₄]]]]]]]^{s,a}
 = λxλi ∃e[run(i)(e)(lola) ∧ fast(i)(x)(e)] = ①
- [[[[VP glau_e [CP [C° dass] [_{JP} Lola₃ [TP t₃ schnell t₄] [_J° J– rennt₄]]]]]]]]]^{s,a}
 = λxλi[believe(i)(x)(①(x))]
 = λxλi[believe(i)(x)(λi∃e[run(i)(e)(lola) ∧ fast(i)(x)(e)])] = ②
- [[[[ActP ich₁ [Act° [• glau_e]₀] [ComP t₁ [JP t₁ [TP t₁ t₂ t₀] [_J° J– t₀]]] [Com° t₀]]]]]<sub>[CP ...]₂]]]^{s,a}
 = λc {i | ∃i' ∈ C [i' ◦→ i [s– ②(s)]]}</sub>
- Indirectly communicating ‘Lola is running fast’ (credulous update, Walker 1996)
- Speaker s commits to proposition ‘s believes that Lola is running fast’, s is a trustworthy source, nobody objects: credulous update: ‘s believes that Lola is running fast’ assumed to be true.
- If ‘s believes that Lola is running fast’ is true and s is a trustworthy source, and no participant objects: further update to ‘Lola is running fast’

Indirect commitments and embedded Verb Second



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- Embedded V2 sentences under certain predicates
 - *Manni glaubt, dass Lola schnell rennt / Lola rennt schnell.* ‘believe’
 - *Manni hat gesagt, dass Lola schnell rennt / Lola rennt schnell.* ‘say’
 - *Es ist offensichtlich, dass Lola schnell rennt / Lola rennt schnell.* ‘be obvious’
 - *Es freut Manni, dass Lola schnell rennt / *Lola rennt schnell.* ‘be glad’
 - *Manni bezweifelt, dass Lola schnell rennt / *Lola rennt schnell.* ‘doubt’
 - *Manni glaubt nicht, dass Lola schnell rennt. / *Lola rennt schnell.* ‘not believe’
- Generalisations over embedded V2:
 - Reis 1992: “vermittelte Assertionen” ‘relayed assertions’
 - Meinunger 2007: Verbs of saying and thinking, evidential verbs
- Proposal: Embedded V2 are embedded ActPs; no complementizer, hence V2
 - Contributions to the common ground by the speaker:
 - S₁: *Ich glaube, Lola rennt schnell.*
 - Reading of *glauben* as embedding ActP A:
 - S₁ updates common ground by A by expressing a belief that A is assertable’
 - Speaker represents another authority:
 - S₁: *Manni glaubt, Lola rennt / renne schnell.*
 - S₁ updates common ground by A by committing to Manni’s belief that A is assertable, Konjunktiv I due to shifted reportative evidence

Wrapping up



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- Arguments for the commitment view of assertions
 - *Believe it or not / I don’t care whether you believe me, but he will be re-elected.*
 - *He will be re-elected. ≠ I believe that he will be re-elected.*
- Arguments for commitment to beliefs and other commitments:
 - *I believe that he will be re-elected.*
 - *He probably will be re-elected.*
 - *According to Michael Moore, he will be re-elected.*
 - *Michael Moore says he will be re-elected.*
 - Allows for indirect communication of proposition by hedging one’s commitments
- Syntax / Semantics mapping
 - Peirce / Frege distinction between private judgements and public assertions
 - Assume a structure [ActPhrase [CommitPhrase [JudgePhrase [TensePhrase]]]
 - Interpretation as: ◦→ update ⊢ commitment J– judgement proposition
 - Evidence: adverbials *frankly* *truly* *certainly* *(be certain...)*
 - Embedding by: *admit* *say* *believe* *be glad*
- Reference:
 - Krifka (to appear), “Layers of assertive clauses: Propositions, Judgments, Commitments, Acts”
 - website: leibniz-zas.de

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